



# Open Source Used In AppDynamics\_OTIS\_Pipeline 23.8.3

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# 1.1 libjpeg 6b

## 1.1.1 Notifications :

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## 1.1.2 Available under license :

The Independent JPEG Group's JPEG software

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README for release 6b of 27-Mar-1998

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This software is the work of Tom Lane, Philip Gladstone, Jim Boucher, Lee Crocker, Julian Minguillon, Luis Ortiz, George Phillips, Davide Rossi, Guido Vollbeding, Ge' Weijers, and other members of the Independent JPEG Group.

IJG is not affiliated with the official ISO JPEG standards committee.

### DOCUMENTATION

#### ROADMAP

=====

This file contains the following sections:

- OVERVIEW        General description of JPEG and the IJG software.
- LEGAL ISSUES    Copyright, lack of warranty, terms of distribution.
- REFERENCES     Where to learn more about JPEG.
- ARCHIVE LOCATIONS    Where to find newer versions of this software.
- RELATED SOFTWARE    Other stuff you should get.
- FILE FORMAT WARS    Software \*not\* to get.
- TO DO            Plans for future IJG releases.

Other documentation files in the distribution are:

User documentation:

- install.doc     How to configure and install the IJG software.

usage.doc      Usage instructions for cjpeg, djpeg, jpegtran,  
                 rdjpgcom, and wrjpgcom.  
\*.1            Unix-style man pages for programs (same info as usage.doc).  
wizard.doc     Advanced usage instructions for JPEG wizards only.  
change.log     Version-to-version change highlights.  
Programmer and internal  
documentation:  
libjpeg.doc    How to use the JPEG library in your own programs.  
example.c      Sample code for calling the JPEG library.  
structure.doc   Overview of the JPEG library's internal structure.  
filelist.doc    Road map of IJG files.  
coderrules.doc Coding style rules --- please read if you contribute code.

Please read at least the files install.doc and usage.doc. Useful information can also be found in the JPEG FAQ (Frequently Asked Questions) article. See ARCHIVE LOCATIONS below to find out where to obtain the FAQ article.

If you want to understand how the JPEG code works, we suggest reading one or more of the REFERENCES, then looking at the documentation files (in roughly the order listed) before diving into the code.

## OVERVIEW

=====

This package contains C software to implement JPEG image compression and decompression. JPEG (pronounced "jay-peg") is a standardized compression method for full-color and gray-scale images.

JPEG is intended for compressing "real-world" scenes; line drawings, cartoons and other non-realistic images are not its strong suit. JPEG is lossy, meaning that the output image is not exactly identical to the input image. Hence you must not use JPEG if you have to have identical output bits. However, on typical photographic images, very good compression levels can be obtained with no visible change, and remarkably high compression levels are possible if you can tolerate a low-quality image. For more details, see the references, or just experiment with various compression settings.

This software implements JPEG baseline, extended-sequential, and progressive compression processes. Provision is made for supporting all variants of these processes, although some uncommon parameter settings aren't implemented yet. For legal reasons, we are not distributing code for the arithmetic-coding variants of JPEG; see LEGAL ISSUES. We have made no provision for supporting the hierarchical or lossless processes defined in the standard.

We provide a set of library routines for reading and writing JPEG image files, plus two sample applications "cjpeg" and "djpeg", which use the library to

perform conversion between JPEG and some other popular image file formats. The library is intended to be reused in other applications.

In order to support file conversion and viewing software, we have included considerable functionality beyond the bare JPEG coding/decoding capability; for example, the color quantization modules are not strictly part of JPEG decoding, but they are essential for output to colormapped file formats or colormapped displays. These extra functions can be compiled out of the library if not required for a particular application. We have also included "jpegtran", a utility for lossless transcoding between different JPEG processes, and "rdjpgcom" and "wrjpgcom", two simple applications for inserting and extracting textual comments in JFIF files.

The emphasis in designing this software has been on achieving portability and flexibility, while also making it fast enough to be useful. In particular, the software is not intended to be read as a tutorial on JPEG. (See the REFERENCES section for introductory material.) Rather, it is intended to be reliable, portable, industrial-strength code. We do not claim to have achieved that goal in every aspect of the software, but we strive for it.

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## LEGAL ISSUES

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The Unix configuration script "configure" was produced with GNU Autoconf. It is copyright by the Free Software Foundation but is freely distributable. The same holds for its supporting scripts (config.guess, config.sub, ltconfig, ltmain.sh). Another support script, install-sh, is copyright by M.I.T. but is also freely distributable.

It appears that the arithmetic coding option of the JPEG spec is covered by patents owned by IBM, AT&T, and Mitsubishi. Hence arithmetic

coding cannot

legally be used without obtaining one or more licenses. For this reason, support for arithmetic coding has been removed from the free JPEG software. (Since arithmetic coding provides only a marginal gain over the unpatented Huffman mode, it is unlikely that very many implementations will support it.) So far as we are aware, there are no patent restrictions on the remaining code.

The IJG distribution formerly included code to read and write GIF files. To avoid entanglement with the Unisys LZW patent, GIF reading support has been removed altogether, and the GIF writer has been simplified to produce "uncompressed GIFs". This technique does not use the LZW algorithm; the resulting GIF files are larger than usual, but are readable by all standard GIF decoders.

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## REFERENCES

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We

highly recommend reading one or more of these references before trying to understand the innards of the JPEG software.

The best short technical introduction to the JPEG compression algorithm is Wallace, Gregory K. "The JPEG Still Picture Compression Standard", Communications of the ACM, April 1991 (vol. 34 no. 4), pp. 30-44. (Adjacent articles in that issue discuss MPEG motion picture compression, applications of JPEG, and related topics.) If you don't have the CACM issue handy, a PostScript file containing a revised version of Wallace's article is available at <ftp://ftp.uu.net/graphics/jpeg/wallace.ps.gz>. The file (actually a preprint for an article that appeared in IEEE Trans. Consumer Electronics) omits the sample images that appeared in CACM, but it includes corrections and some added material. Note: the Wallace article is copyright ACM and IEEE, and it may not be used for commercial purposes.

A somewhat less technical, more

leisurely introduction to JPEG can be found in

"The Data Compression Book" by Mark Nelson and Jean-loup Gailly, published by M&T Books (New York), 2nd ed. 1996, ISBN 1-55851-434-1. This book provides good explanations and example C code for a multitude of compression methods including JPEG. It is an excellent source if you are comfortable reading C code but don't know much about data compression in general. The book's JPEG sample code is far from industrial-strength, but when you are ready to look

at a full implementation, you've got one here...

The best full description of JPEG is the textbook "JPEG Still Image Data Compression Standard" by William B. Pennebaker and Joan L. Mitchell, published by Van Nostrand Reinhold, 1993, ISBN 0-442-01272-1. Price US\$59.95, 638 pp. The book includes the complete text of the ISO JPEG standards (DIS 10918-1 and draft DIS 10918-2). This is by far the most complete exposition of JPEG in existence, and we highly recommend it.

The

JPEG standard itself is not available electronically; you must order a paper copy through ISO or ITU. (Unless you feel a need to own a certified official copy, we recommend buying the Pennebaker and Mitchell book instead; it's much cheaper and includes a great deal of useful explanatory material.) In the USA, copies of the standard may be ordered from ANSI Sales at (212) 642-4900, or from Global Engineering Documents at (800) 854-7179. (ANSI doesn't take credit card orders, but Global does.) It's not cheap: as of 1992, ANSI was charging \$95 for Part 1 and \$47 for Part 2, plus 7% shipping/handling. The standard is divided into two parts, Part 1 being the actual specification, while Part 2 covers compliance testing methods. Part 1 is titled "Digital Compression and Coding of Continuous-tone Still Images, Part 1: Requirements and guidelines" and has document numbers ISO/IEC IS 10918-1, ITU-T T.81. Part 2 is titled "Digital Compression and Coding of Continuous-tone Still Images, Part 2: Compliance testing" and has document numbers ISO/IEC IS 10918-2, ITU-T T.83.

Some extensions to the original JPEG standard are defined in JPEG Part 3, a newer ISO standard numbered ISO/IEC IS 10918-3 and ITU-T T.84. IJG currently does not support any Part 3 extensions.

The JPEG standard does not specify all details of an interchangeable file format. For the omitted details we follow the "JFIF" conventions, revision 1.02. A copy of the JFIF spec is available from:

Literature Department  
C-Cube Microsystems, Inc.  
1778 McCarthy Blvd.  
Milpitas, CA 95035  
phone (408) 944-6300, fax (408) 944-6314

A PostScript version of this document is available by FTP at <ftp://ftp.uu.net/graphics/jpeg/jfif.ps.gz>. There is also a plain text version at <ftp://ftp.uu.net/graphics/jpeg/jfif.txt.gz>, but it is missing the figures.

The TIFF 6.0 file format specification can be obtained by FTP from <ftp://ftp.sgi.com/graphics/tiff/TIFF6.ps.gz>. The JPEG incorporation scheme found in the TIFF 6.0 spec of 3-June-92 has a number of serious problems.

IJG does not recommend use of the TIFF 6.0 design (TIFF Compression tag 6). Instead, we recommend the JPEG design proposed by TIFF Technical Note #2 (Compression tag 7). Copies of this Note can be obtained from <ftp.sgi.com> or from <ftp://ftp.uu.net/graphics/jpeg/>. It is expected that the next revision of the TIFF spec will replace the 6.0 JPEG design with the Note's design. Although IJG's own code does not support TIFF/JPEG, the free libtiff library uses our library to implement TIFF/JPEG per the Note. libtiff is available from <ftp://ftp.sgi.com/graphics/tiff/>.

## ARCHIVE LOCATIONS

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The "official" archive site for this software is <ftp.uu.net> (Internet address 192.48.96.9). The most recent released version can always be found there in directory [graphics/jpeg](ftp://ftp.uu.net/graphics/jpeg/). This particular version will be archived as <ftp://ftp.uu.net/graphics/jpeg/jpegsrc.v6b.tar.gz>. If you don't have direct Internet access, UUNET's archives are also available via UUCP; contact [help@uunet.uu.net](mailto:help@uunet.uu.net) for information on retrieving files that way.

Numerous Internet sites maintain copies of the UUNET files. However, only <ftp.uu.net> is guaranteed to have the latest official version.

You can also obtain this software in DOS-compatible "zip" archive format from the SimTel archives (<ftp://ftp.simtel.net/pub/simtelnet/msdos/graphics/>), or on CompuServe in the Graphics Support forum (GO CIS:GRAPHSUP), library 12 "JPEG Tools". Again, these versions may sometimes lag behind the <ftp.uu.net> release.

The JPEG FAQ (Frequently Asked Questions) article is a useful source of general information about JPEG. It is updated constantly and therefore is not included in this distribution. The FAQ is posted every two weeks to Usenet newsgroups [comp.graphics.misc](mailto:comp.graphics.misc), [news.answers](mailto:news.answers), and other groups. It is available on the World Wide Web at <http://www.faqs.org/faqs/jpeg-faq/> and other [news.answers](mailto:news.answers) archive sites, including the official [news.answers](mailto:news.answers) archive at [rtfm.mit.edu: ftp://rtfm.mit.edu/pub/usenet/news.answers/jpeg-faq/](ftp://rtfm.mit.edu/pub/usenet/news.answers/jpeg-faq/). If you don't have Web or FTP access, send e-mail to [mail-server@rtfm.mit.edu](mailto:mail-server@rtfm.mit.edu) with body  
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## RELATED SOFTWARE

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Numerous viewing and image manipulation programs now support JPEG. (Quite a

few of them use this library to do so.) The JPEG FAQ described above lists some of the more popular free and shareware viewers, and tells where to obtain them on Internet.

If you are on a Unix machine, we highly recommend Jef Poskanzer's free PBPLUS software, which provides many useful operations on PPM-format image files. In particular, it can convert PPM images to and from a wide range of other formats, thus making cjpeg/djpeg considerably more useful. The latest version is distributed by the NetPBM group, and is available from numerous sites,

notably <ftp://wuarchive.wustl.edu/graphics/graphics/packages/NetPBM/>.

Unfortunately PBPLUS/NETPBM is not nearly as portable as the IJG software is; you are likely to have difficulty making it work on any non-Unix machine.

A different free JPEG implementation, written by the PVRG group at Stanford, is available from <ftp://havefun.stanford.edu/pub/jpeg/>. This program is designed for research and experimentation rather than production use; it is slower, harder to use, and less portable than the IJG code, but it is easier to read and modify. Also, the PVRG code supports lossless JPEG, which we do not. (On the other hand, it doesn't do progressive JPEG.)

## FILE FORMAT WARS

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Some JPEG programs produce files that are not compatible with our library. The root of the problem is that the ISO JPEG committee failed to specify a concrete file format. Some vendors "filled in the blanks" on their own, creating proprietary formats that no one else could read.

(For example, none of the early commercial JPEG implementations for the Macintosh were able to exchange compressed files.)

The file format we have adopted is called JFIF (see REFERENCES). This format has been agreed to by a number of major commercial JPEG vendors, and it has become the de facto standard. JFIF is a minimal or "low end" representation. We recommend the use of TIFF/JPEG (TIFF revision 6.0 as modified by TIFF Technical Note #2) for "high end" applications that need to record a lot of additional data about an image. TIFF/JPEG is fairly new and not yet widely supported, unfortunately.

The upcoming JPEG Part 3 standard defines a file format called SPIFF. SPIFF is interoperable with JFIF, in the sense that most JFIF decoders should be able to read the most common variant of SPIFF. SPIFF has some technical advantages over JFIF, but its major claim to fame is simply that it is an official standard rather than an informal one. At this point it is unclear whether

SPIFF will supersede JFIF or whether JFIF will remain the de-facto standard. IJG intends to support SPIFF once the standard is frozen, but we have not decided whether it should become our default output format or not. (In any case, our decoder will remain capable of reading JFIF indefinitely.)

Various proprietary file formats incorporating JPEG compression also exist. We have little or no sympathy for the existence of these formats. Indeed, one of the original reasons for developing this free software was to help force convergence on common, open format standards for JPEG files. Don't use a proprietary file format!

TO DO

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The major thrust for v7 will probably be improvement of visual quality. The current method for scaling the quantization tables is known not to be very good at low Q values. We also intend to investigate block boundary smoothing, "poor man's variable quantization", and other means of improving quality-vs-file-size performance without sacrificing compatibility.

In future versions, we are considering supporting some of the upcoming JPEG Part 3 extensions --- principally, variable quantization and the SPIFF file format.

As always, speeding things up is of great interest.

Please send bug reports, offers of help, etc. to [jpeg-info@uunet.uu.net](mailto:jpeg-info@uunet.uu.net).

## 1.2 javax-inject 1

### 1.2.1 Available under license :

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Version 2.0, January 2004

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# 1.7 listenablefuture 9999.0-empty-to-avoid-conflict-with-guava

## 1.8 failureaccess 1.0.1

## 1.9 j2objc-annotations 1.3

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```
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From network\_io/unix/inet\_ntop.c, network\_io/unix/inet\_pton.c:

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From dso/aix/dso.c:

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From strings/apr\_strnatcmp.c,

include/apr\_strings.h:

strnatcmp.c -- Perform 'natural order' comparisons of strings in C.

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\*

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not-a-legal-formal-parameter-tuple.scala:2: error: not a legal formal parameter.  
Note: Tuples cannot be directly destructured in method or function parameters.

```
    Either create a single parameter accepting the Tuple2,  
    or consider a pattern matching anonymous function: `{ case (a, b) => ... }`  
val x: ((Int, Int) => Int) = (((a, b)) => a)  
      ^
```

not-a-legal-formal-parameter-tuple.scala:3: error: not a legal formal parameter.  
Note: Tuples cannot be directly destructured in method or function parameters.

```
    Either create a single parameter accepting the Tuple2,  
    or consider a pattern matching anonymous function: `{ case (param1, param2) => ... }`  
val y: ((Int, Int, Int) => Int) = (((a, !)) => a)  
      ^
```

not-a-legal-formal-parameter-tuple.scala:4: error: not a legal formal parameter.  
Note: Tuples cannot be directly destructured in method or function parameters.

```
    Either create a single parameter accepting the  
    Tuple3,  
    or consider a pattern matching anonymous function: `{ case (param1, ..., param3) => ... }`  
val z: ((Int, Int, Int) => Int) = (((a, NotAPatternVariableName, c)) => a)  
      ^
```

three errors found

```
{% if site.thisScalaVersion != site.latestScalaVersion %}  
<div class="version-notice">This is the specification of a previous version of Scala. See the <a href="{ {  
site.baseurl} }"/>{ { site.latestScalaVersion } }"/>Scala { { site.latestScalaVersion } } spec</a>.</div>
```

{% endif % }

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Found in path(s):

```
* /opt/ws_local/PERMITS_SQL/1059106420_1592475238.99/0/error-prone-annotations-2-3-4-sources-1-  
jar/com/google/errorprone/annotations/Immutable.java  
* /opt/ws_local/PERMITS_SQL/1059106420_1592475238.99/0/error-prone-annotations-2-3-4-sources-1-  
jar/com/google/errorprone/annotations/ForOverride.java  
* /opt/ws_local/PERMITS_SQL/1059106420_1592475238.99/0/error-prone-annotations-2-3-4-sources-1-  
jar/com/google/errorprone/annotations/Var.java  
*  
/opt/ws_local/PERMITS_SQL/1059106420_1592475238.99/0/error-prone-annotations-2-3-4-sources-1-  
jar/com/google/errorprone/annotations/SuppressPackageLocation.java  
* /opt/ws_local/PERMITS_SQL/1059106420_1592475238.99/0/error-prone-annotations-2-3-4-sources-1-  
jar/com/google/errorprone/annotations/IncompatibleModifiers.java  
* /opt/ws_local/PERMITS_SQL/1059106420_1592475238.99/0/error-prone-annotations-2-3-4-sources-1-  
jar/com/google/errorprone/annotations/CanIgnoreReturnValue.java  
* /opt/ws_local/PERMITS_SQL/1059106420_1592475238.99/0/error-prone-annotations-2-3-4-sources-1-  
jar/com/google/errorprone/annotations/CompileTimeConstant.java  
* /opt/ws_local/PERMITS_SQL/1059106420_1592475238.99/0/error-prone-annotations-2-3-4-sources-1-  
jar/com/google/errorprone/annotations/concurrent/LazyInit.java  
* /opt/ws_local/PERMITS_SQL/1059106420_1592475238.99/0/error-prone-annotations-2-3-4-sources-1-  
jar/com/google/errorprone/annotations/RequiredModifiers.java
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jar/com/google/errorprone/annotations/DoNotCall.java
* /opt/ws_local/PERMITS_SQL/1059106420_1592475238.99/0/error-prone-annotations-2-3-4-sources-1-
jar/com/google/errorprone/annotations/concurrent/GuardedBy.java
*
/opt/ws_local/PERMITS_SQL/1059106420_1592475238.99/0/error-prone-annotations-2-3-4-sources-1-
jar/com/google/errorprone/annotations/OverridingMethodsMustInvokeSuper.java
* /opt/ws_local/PERMITS_SQL/1059106420_1592475238.99/0/error-prone-annotations-2-3-4-sources-1-
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```

```

jar/com/google/errorprone/annotations/concurrent/UnlockMethod.java
* /opt/ws_local/PERMITS_SQL/1059106420_1592475238.99/0/error-prone-annotations-2-3-4-sources-1-
jar/com/google/errorprone/annotations/NoAllocation.java
*
/opt/ws_local/PERMITS_SQL/1059106420_1592475238.99/0/error-prone-annotations-2-3-4-sources-1-
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*/

```

Found in path(s):

```

* /opt/ws_local/PERMITS_SQL/1059106420_1592475238.99/0/error-prone-annotations-2-3-4-sources-1-
jar/com/google/errorprone/annotations/FormatString.java
* /opt/ws_local/PERMITS_SQL/1059106420_1592475238.99/0/error-prone-annotations-2-3-4-sources-1-
jar/com/google/errorprone/annotations/DoNotMock.java
* /opt/ws_local/PERMITS_SQL/1059106420_1592475238.99/0/error-prone-annotations-2-3-4-sources-1-
jar/com/google/errorprone/annotations/CompatibleWith.java
*
/opt/ws_local/PERMITS_SQL/1059106420_1592475238.99/0/error-prone-annotations-2-3-4-sources-1-
jar/com/google/errorprone/annotations/RestrictedApi.java
* /opt/ws_local/PERMITS_SQL/1059106420_1592475238.99/0/error-prone-annotations-2-3-4-sources-1-
jar/com/google/errorprone/annotations/MustBeClosed.java
* /opt/ws_local/PERMITS_SQL/1059106420_1592475238.99/0/error-prone-annotations-2-3-4-sources-1-
jar/com/google/errorprone/annotations/FormatMethod.java

```

## 1.17 jctools-core 3.1.0

### 1.17.1 Available under license :

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```

<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/maven-v4_0_0.xsd">
  <modelVersion>4.0.0</modelVersion>

```

```

<artifactId>jctools-core</artifactId>
<groupId>org.jctools</groupId>
<version>3.1.0</version>
<name>Java Concurrency Tools Core Library</name>
<description>Java Concurrency Tools Core Library</description>
<packaging>bundle</packaging>

<dependencies>
<dependency>
<groupId>org.hamcrest</groupId>
<artifactId>hamcrest-all</artifactId>
<version>${hamcrest.version}</version>
<scope>test</scope>
</dependency>

<dependency>
<groupId>junit</groupId>
<artifactId>junit</artifactId>
<version>${junit.version}</version>
<scope>test</scope>
</dependency>

<dependency>
<groupId>com.google.guava</groupId>
<artifactId>guava-testlib</artifactId>
<version>${guava-testlib.version}</version>
<scope>test</scope>
</dependency>
</dependencies>
<build>
<plugins>
<plugin>
<groupId>org.apache.maven.plugins</groupId>
<artifactId>maven-surefire-plugin</artifactId>
<version>3.0.0-M3</version>
<configuration>
<includes>
<include>*</include>
</includes>
</configuration>
</plugin>
<plugin>
<groupId>org.apache.felix</groupId>
<artifactId>maven-bundle-plugin</artifactId>
<version>4.2.1</version>
<extensions>>true</extensions>
<configuration>

```

```

<instructions>
  <Import-Package>sun.misc;resolution:=optional</Import-Package>
</instructions>
</configuration>
</plugin>
<plugin>
  <groupId>org.apache.maven.plugins</groupId>
  <artifactId>maven-source-plugin</artifactId>
  <version>3.2.0</version>
  <executions>
    <execution>
      <id>attach-sources</id>
      <phase>verify</phase>
      <goals>
        <goal>jar-no-fork</goal>
      </goals>
    </execution>
  </executions>
</plugin>
<plugin>
  <groupId>org.apache.maven.plugins</groupId>
  <artifactId>maven-javadoc-plugin</artifactId>
  <version>3.1.1</version>
  <configuration>
    <additionalOptions>
      <additionalOption>-Xdoclint:none</additionalOption>
    </additionalOptions>
    <source>8</source>
  </configuration>
  <executions>
    <execution>
      <id>attach-javadocs</id>
      <goals>
        <goal>jar</goal>
      </goals>
    </execution>
  </executions>
</plugin>
</plugins>
</build>

<distributionManagement>
  <repository>
    <id>bintray-jctools-jctools</id>
    <name>jctools-jctools</name>
    <url>https://api.bintray.com/maven/jctools/jctools/jctools-core/?publish=1</url>
  </repository>
</distributionManagement>

```



```
<url>https://github.com/JCTools</url>
<inceptionYear>2013</inceptionYear>

<licenses>
  <license>
    <name>Apache
License, Version 2.0</name>
    <url>http://www.apache.org/licenses/LICENSE-2.0.txt</url>
    <distribution>repo</distribution>
  </license>
</licenses>

<scm>
<url>https://github.com/JCTools/JCTools</url>
<connection>scm:git:https://github.com/JCTools/JCTools</connection>
<tag>HEAD</tag>
</scm>

<developers>
<developer>
  <url>https://github.com/nitsanw</url>
</developer>
<developer>
  <url>https://github.com/mjpt777</url>
</developer>
<developer>
  <url>https://github.com/RichardWarburton</url>
</developer>
<developer>
  <url>https://github.com/kay</url>
</developer>
<developer>
  <url>https://github.com/franz1981</url>
</developer>
</developers>

<prerequisites>
<maven>3.5.0</maven>
</prerequisites>

<properties>
<project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>
<java.version>1.6</java.version>
<java.test.version>1.8</java.test.version>

<maven.compiler.source>${java.version}</maven.compiler.source>
<maven.compiler.target>${java.version}</maven.compiler.target>
```

```

<maven.compiler.testSource>${java.test.version}</maven.compiler.testSource>
<maven.compiler.testTarget>${java.test.version}</maven.compiler.testTarget>

<hamcrest.version>1.3</hamcrest.version>
<junit.version>4.12</junit.version>
<guava-testlib.version>21.0</guava-testlib.version>
</properties>
</project>

```

#### Found

in path(s):

```
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-jar/META-INF/maven/org.jctools/jctools-core/pom.xml
```

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```
/*
```

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```

Found in path(s):

```
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-jar/org.jctools/queues/spec/Ordering.java
```

```
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-jar/org.jctools/queues/atomic/SpSCUnboundedAtomicArrayQueue.java
```

```
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-jar/org.jctools/queues/atomic/SpMCAtomicArrayQueue.java
```

```
*
```

```

/opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-jar/org.jctools/queues/MessagePassingQueueUtil.java

```

```
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-jar/org.jctools/queues/atomic/MpMCAtomicArrayQueue.java
```

```
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-jar/org.jctools/util/UnsafeJvmInfo.java
```

```
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-jar/org.jctools/queues/atomic/LinkedQueueAtomicNode.java
```

```
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-jar/org.jctools/queues/SpSCLinkedQueue.java
```

```
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-
```

jar/org/jctools/queues/MpscUnboundedXaddArrayQueue.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-  
 jar/org/jctools/queues/spec/Preference.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-  
 jar/org/jctools/queues/atomic/MpscAtomicArrayQueue.java  
 \*  
 /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-  
 jar/org/jctools/queues/MessagePassingQueue.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-  
 jar/org/jctools/queues/SupportsIterator.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-  
 jar/org/jctools/queues/MpmcUnboundedXaddArrayQueue.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-  
 jar/org/jctools/queues/MpscGrowableArrayQueue.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-  
 jar/org/jctools/queues/atomic/BaseSpSCLinkedAtomicArrayQueue.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-  
 jar/org/jctools/queues/atomic/AtomicQueueFactory.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-  
 jar/org/jctools/queues/MpmcArrayQueue.java  
 \*  
 /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-  
 jar/org/jctools/queues/atomic/SpSCAtomicArrayQueue.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-  
 jar/org/jctools/queues/atomic/SpSCLinkedAtomicQueue.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-  
 jar/org/jctools/queues/SpmcArrayQueue.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-  
 jar/org/jctools/maps/AbstractEntry.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-  
 jar/org/jctools/queues/MpmcUnboundedXaddChunk.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-  
 jar/org/jctools/queues/MpscChunkedArrayQueue.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-  
 jar/org/jctools/maps/NonBlockingHashMapLong.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-  
 jar/org/jctools/queues/atomic/MpscChunkedAtomicArrayQueue.java  
 \*  
 /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-  
 jar/org/jctools/queues/ConcurrentSequencedCircularArrayQueue.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-  
 jar/org/jctools/util/UnsafeLongArrayAccess.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-  
 jar/org/jctools/queues/MpscBlockingConsumerArrayQueue.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-  
 jar/org/jctools/queues/atomic/BaseMpscLinkedAtomicArrayQueue.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-  
 jar/org/jctools/maps/NonBlockingHashMap.java

\* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/BaseMpscLinkedListArrayQueue.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/atomic/MpscGrowableAtomicArrayQueue.java  
 \*  
 /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/maps/NonBlockingIdentityHashMap.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/BaseLinkedList.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/util/InternalAPI.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/maps/NonBlockingHashSet.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/util/Pow2.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/spec/ConcurrentQueueSpec.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/atomic/SpSCChunkedAtomicArrayQueue.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/maps/ConcurrentAutoTable.java  
 \*  
 /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/MpscUnboundedXaddChunk.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/atomic/MpscUnboundedAtomicArrayQueue.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/LinkedListNode.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/SpSCUnboundedArrayQueue.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/util/PortableJvmInfo.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/ConcurrentCircularArrayQueue.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/maps/NonBlockingSetInt.java  
 \*  
 /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/atomic/BaseLinkedListAtomicQueue.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/atomic/SequencedAtomicReferenceArrayQueue.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/MpscLinkedList.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/util/UnsafeRefArrayAccess.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/MpscCompoundQueue.java  
 \* /opt/ws\_local/PERMITS\_SQL/1093815924\_1601014602.33/0/jctools-core-3-1-0-sources-

```

jar/org/jctools/queues/SpSCChunkedArrayQueue.java
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-
jar/org/jctools/queues/SpSCArrayQueue.java
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-
jar/org/jctools/queues/atomic/AtomicReferenceArrayQueue.java
*
/opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-
jar/org/jctools/queues/QueueFactory.java
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-
jar/org/jctools/queues/MpscArrayQueue.java
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-
jar/org/jctools/util/UnsafeAccess.java
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-
jar/org/jctools/queues/MpscUnboundedArrayQueue.java
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-
jar/org/jctools/queues/atomic/SpSCGrowablesAtomicArrayQueue.java
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-
jar/org/jctools/queues/IndexedQueueSizeUtil.java
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-
jar/org/jctools/queues/atomic/MpscLinkedAtomicQueue.java
*
/opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-
jar/org/jctools/queues/SpSCGrowablesArrayQueue.java
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-
jar/org/jctools/util/RangeUtil.java
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-
jar/org/jctools/queues/package-info.java
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-
jar/org/jctools/queues/BaseSpSCLinkedArrayQueue.java

```

## 1.18 okio 2.8.0

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Found in path(s):

- \* /opt/cola/permits/1096821398\_1601900245.47/0/okio-2-8-0-sources-jar/commonMain/okio/ByteString.kt
- \* /opt/cola/permits/1096821398\_1601900245.47/0/okio-2-8-0-sources-jar/commonMain/okio/internal/-Utf8.kt
- \* /opt/cola/permits/1096821398\_1601900245.47/0/okio-2-8-0-sources-jar/commonMain/okio/-Util.kt
- \* /opt/cola/permits/1096821398\_1601900245.47/0/okio-2-8-0-sources-jar/commonMain/okio/-Platform.kt
- \*
- \* /opt/cola/permits/1096821398\_1601900245.47/0/okio-2-8-0-sources-jar/jvmMain/okio/-Platform.kt
- \* /opt/cola/permits/1096821398\_1601900245.47/0/okio-2-8-0-sources-jar/commonMain/okio/internal/ByteString.kt

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- \*/

Found in path(s):

- \* /opt/cola/permits/1096821398\_1601900245.47/0/okio-2-8-0-sources-jar/commonMain/okio/internal/RealBufferedSink.kt
- \* /opt/cola/permits/1096821398\_1601900245.47/0/okio-2-8-0-sources-jar/commonMain/okio/internal/SegmentedByteString.kt
- \* /opt/cola/permits/1096821398\_1601900245.47/0/okio-2-8-0-sources-jar/commonMain/okio/internal/RealBufferedSource.kt

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- \*/

Found in path(s):

- \* /opt/cola/permits/1096821398\_1601900245.47/0/okio-2-8-0-sources-jar/commonMain/okio/BufferedSource.kt
- \* /opt/cola/permits/1096821398\_1601900245.47/0/okio-2-8-0-sources-jar/commonMain/okio/RealBufferedSink.kt
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- \* /opt/cola/permits/1096821398\_1601900245.47/0/okio-2-8-0-sources-jar/commonMain/okio/RealBufferedSource.kt
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- \*/opt/cola/permits/1096821398\_1601900245.47/0/okio-2-8-0-sources-jar/commonMain/okio/Source.kt
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- \* /opt/cola/permits/1096821398\_1601900245.47/0/okio-2-8-0-sources-jar/commonMain/okio/Buffer.kt
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jar/com/google/common/eventbus/SubscriberRegistry.java  
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```

jar/com/google/common/reflect/TypeToken.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/util/concurrent/FluentFuture.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
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jar/com/google/common/util/concurrent/CollectionFuture.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/base/CaseFormat.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/escape/CharEscaper.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/io/PatternFilenameFilter.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/util/concurrent/GwtFuturesCatchingSpecialization.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/escape/CharEscaperBuilder.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/util/concurrent/TimeoutFuture.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/util/concurrent/ImmediateFuture.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/util/concurrent/SimpleTimeLimiter.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/annotations/VisibleForTesting.java
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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/reflect/TypeVisitor.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/thirdparty/publicsuffix/PublicSuffixType.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/HashingInputStream.java  
\*  
/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/VerifyException.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/eventbus/SubscriberExceptionHandler.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/AbstractTable.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/Runnables.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/Verify.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/eventbus/SubscriberExceptionContext.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/FilteredMultimapValues.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/CharSequenceReader.java  
\*  
/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/Utf8.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/WrappingScheduledExecutorService.java  
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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/JdkBackedImmutableMap.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/BaseImmutableMultimap.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/JdkBackedImmutableBiMap.java  
\*

/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/IndexedImmutableSet.java

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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/hash/package-info.java

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/*
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* http://gee.cs.oswego.edu/cgi-bin/viewcvs.cgi/jsr166/src/test/tck/AbstractExecutorServiceTest.java?revision=1.30
* which contained the following notice:
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*/

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Found in path(s):

```

* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/util/concurrent/MoreExecutors.java

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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/FilteredKeySetMultimap.java

```

```

* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/FilteredKeyListMultimap.java

```

```

* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-

```

jar/com/google/common/collect/AllEqualOrdering.java  
\*  
/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/TransformedListIterator.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/FilteredMultimap.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/FilteredEntrySetMultimap.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/SortedMultisetBridge.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/CompactLinkedHashSet.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/CompactLinkedHashMap.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/FilteredSetMultimap.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/CompactHashMap.java  
\*  
/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/AbstractSortedKeySortedSetMultimap.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/ImmutableEnumMap.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/UnmodifiableSortedMultiset.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/util/concurrent/ForwardingBlockingDeque.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/ForwardingImmutableList.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/ForwardingBlockingDeque.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/ForwardingDeque.java  
\*  
/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/TransformedIterator.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/ForwardingImmutableMap.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/TreeTraverser.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/CompactHashSet.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/DescendingMultiset.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/FilteredEntryMultimap.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/RangeMap.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingNavigableSet.java

\*

/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/TreeRangeMap.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/DescendingImmutableSortedSet.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/AbstractMultimap.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/RegularImmutableAsList.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/EvictingQueue.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingNavigableMap.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingImmutableSet.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/AbstractNavigableMap.java

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\* Holder for extra methods of {@code Objects} only in web. Intended to be empty for regular  
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\*/

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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/ExtraObjectsMethodsForWeb.java

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jar/com/google/common/collect/ImmutableMapEntry.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/MultimapBuilder.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/io/MoreFiles.java
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jar/com/google/common/collect/ImmutableEntry.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/Tables.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/thirdparty/publicsuffix/PublicSuffixPatterns.java
*
```

```
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/Serialization.java
```

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/StandardTable.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableListMultimap.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/PeekingIterator.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/RegularImmutableMap.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableMultiset.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/SingletonImmutableBiMap.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/RegularImmutableBiMap.java  
 \*  
 /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableBiMap.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableSortedSet.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableMapValues.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Collections2.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableMapEntrySet.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableCollection.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Table.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/EmptyImmutableListMultimap.java  
 \*  
 /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/CollectPreconditions.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/HashBasedTable.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableMultimap.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Platform.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/TreeBasedTable.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/StandardRowSortedTable.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableMap.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Range.java

\*  
/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/UnmodifiableIterator.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/ImmutableMapKeySet.java  
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/\*\*  
\* Holder for web specializations of methods of { @code Shorts}. Intended to be empty for regular  
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\*/

Found in path(s):  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/primitives/ShortsMethodsForWeb.java  
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\*/  
/\*  
\* This method was rewritten in Java from an intermediate step of the Murmur hash function in  
\* <http://code.google.com/p/smhasher/source/browse/trunk/MurmurHash3.cpp>, which contained the

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```

Found in path(s):

```
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/ImmutableRangeSet.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/math/LinearTransformation.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/io/CharSink.java
*
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/hash/LongAddable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/util/concurrent/SmoothRateLimiter.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/FilteredKeyMultimap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/reflect/Parameter.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/io/ByteSink.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/Closer.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/math/Stats.java
```

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/html/package-info.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/math/PairedStatsAccumulator.java  
 \*  
 /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/reflect/Element.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/io/CharSource.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/reflect/package-info.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/reflect/ImmutableTypeToInstanceMap.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/math/StatsAccumulator.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/escape/package-info.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/reflect/MutableTypeToInstanceMap.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/hash/SipHashFunction.java  
 \*  
 /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/reflect/TypeCapture.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/cache/LongAddable.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/io/ByteSource.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/hash/ChecksumHashFunction.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/reflect/Invokable.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/util/concurrent/RateLimiter.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/base/StandardSystemProperty.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/hash/AbstractByteHasher.java  
 \*  
 /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/reflect/AbstractInvocationHandler.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/io/BaseEncoding.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/reflect/TypeToInstanceMap.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/math/PairedStats.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-

jar/com/google/common/cache/LongAddables.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/util/concurrent/ListenableScheduledFuture.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/hash/LongAddables.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/CartesianList.java  
\*  
/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/io/FileWriteMode.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/reflect/ClassPath.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/xml/package-  
info.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/ImmutableRangeMap.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/util/concurrent/ServiceManager.java  
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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/graph/AbstractBaseGraph.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/graph/BaseGraph.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/graph/Traverser.java  
\*  
/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/util/concurrent/ClosingFuture.java  
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 */
/*
 * This method was rewritten in Java from an intermediate step of the Murmur hash function in
 * http://code.google.com/p/smhasher/source/browse/trunk/MurmurHash3.cpp, which contained the
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*/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/Hashing.java
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 * the License.
 */
/**
 * Outer class that exists solely to let us write {@code Partially.GwtIncompatible} instead of plain
 * {@code GwtIncompatible}. This is more accurate for {@link Futures#catching}, which is available
 * under GWT but with a slightly different signature.
 */
```

```
*
* <p>We can't use { @code PartiallyGwtIncompatible } because then the GWT compiler
* wouldn't recognize
* it as a { @code GwtIncompatible } annotation. And for { @code Futures.catching }, we need the GWT
* compiler to autostrip the normal server method in order to expose the special, inherited GWT
* version.
*/
```

Found in path(s):

```
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/util/concurrent/Partially.java
```

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```
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/TopKSelector.java
```

```
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/ImmutableGraph.java
```

```
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/SuccessorsFunction.java
```

```
*
```

```
/* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/MutableNetwork.java
```

```
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/ImmutableNetwork.java
```

```
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/Graphs.java
```

```
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/io/InsecureRecursiveDeleteException.java
```

```
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/Graph.java
```

```
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
```



jar/com/google/common/io/RecursiveDeleteOption.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/graph/PredecessorsFunction.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/graph/MutableGraph.java  
\*  
/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/graph/Network.java

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jar/com/google/common/reflect/Reflection.java

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jar/com/google/common/util/concurrent/AtomicDoubleArray.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/hash/LongAdder.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/cache/LongAdder.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/cache/Striped64.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/hash/Striped64.java

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```
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/io/FileBackedOutputStream.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/primitives/Shorts.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/primitives/Doubles.java
*
 /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/util/concurrent/SequentialExecutor.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/base/CharMatcher.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/FluentIterable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/primitives/Booleans.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/primitives/Chars.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/net/PercentEscaper.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/base/Joiner.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/primitives/Floats.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/util/concurrent/ListenableFutureTask.java
*
 /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/escape/UnicodeEscaper.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/primitives/Bytes.java
```

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/MultiReader.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/Stopwatch.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/Converter.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/Longs.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/Ints.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/internal/Finalizer.java  
\*

/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/net/InetAddresses.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/escape/Escaper.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/thirdparty/publicsuffix/TrieParser.java

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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingSetMultimap.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/MinMaxPriorityQueue.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/AbstractSequentialIterator.java  
\*

/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingListMultimap.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-

jar/com/google/common/collect/RowSortedTable.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/ForwardingSortedSetMultimap.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/ForwardingImmutableCollection.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/UnmodifiableListIterator.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/SortedMapDifference.java  
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jar/com/google/common/collect/SortedMultiset.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/SortedMultisets.java  
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Found in path(s):

- \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/DenseImmutableTable.java
- \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/ForwardingFuture.java
- \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/UnsignedBytes.java
- \*
- /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/net/HostSpecifier.java
- \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/AbstractExecutionThreadService.java
- \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/JdkFutureAdapters.java
- \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/SignedBytes.java
- \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/annotations/GwtIncompatible.java
- \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/SparseImmutableTable.java
- \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/net/UrlEscapers.java
- \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/ReferenceEntry.java
- \*
- /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/MapMakerInternalMap.java
- \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/reflect/TypeResolver.java
- \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/escape/Platform.java
- \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/MapMaker.java
- \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/escape/ArrayBasedUnicodeEscaper.java
- \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/CacheBuilder.java
- \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Cut.java
- \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/ByteArrayDataInput.java
- \*
- /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/SettableFuture.java
- \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/Callables.java
- \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-

```
jar/com/google/common/util/concurrent/Service.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/util/concurrent/AbstractIdleService.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/util/concurrent/ForwardingFluentFuture.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/base/Platform.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/io/ByteArrayDataOutput.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/html/HtmlEscapers.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/escape/ArrayBasedEscaperMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/io/LineProcessor.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/xml/XmlEscapers.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/RegularImmutableTable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/util/concurrent/ForwardingListenableFuture.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/annotations/GwtCompatible.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/io/ByteProcessor.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/escape/ArrayBasedCharEscaper.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/net/InternetDomainName.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/util/concurrent/AbstractService.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/base/Splitter.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/cache/LocalCache.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/escape/Escapers.java
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*/
/**
 * Not supported. <b>You are attempting to create a map that may contain a non-{@code Comparable}
 * key.</b> Proper calls will resolve to the version in {@code ImmutableSortedMap}, not this dummy
 * version.
 *
 * @throws UnsupportedOperationException always
 * @deprecated <b>Pass a key of type {@code Comparable}
 to use {@link
 *   ImmutableSortedMap#of(Comparable, Object)}.</b>
 */

```

Found in path(s):

```

* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/ImmutableSortedMapFauxverideShim.java
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 */
/**
 * Holder for web specializations of methods of {@code Floats}. Intended to be empty for regular
 * version.
 */

```

Found in path(s):

```

* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/primitives/FloatsMethodsForWeb.java
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 */
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```
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/ComputationException.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/DiscreteDomain.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/ImmutableClassToInstanceMap.java
*
  /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/ImmutableSortedSetFauxverideShim.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/ImmutableTable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/ImmutableAsList.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/ArrayTable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/ForwardingTable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/TableCollectors.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/ImmutableEnumSet.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/RegularImmutableSortedSet.java
*
  /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/ImmutableSortedMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/SingletonImmutableList.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/SingletonImmutableTable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
```



jar/com/google/common/collect/ImmutableSetMultimap.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/ComparisonChain.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/RegularImmutableList.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/AbstractIndexedListIterator.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/EmptyImmutableSetMultimap.java  
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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/ContiguousSet.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/util/concurrent/Monitor.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/net/package-  
info.java  
\*

\*

/\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/SortedLists.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/util/concurrent/ForwardingBlockingQueue.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/base/Ascii.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/base/Strings.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/annotations/package-info.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/primitives/package-info.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/util/concurrent/Atomics.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/util/concurrent/Atomics.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/util/concurrent/Atomics.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/util/concurrent/Atomics.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/util/concurrent/Atomics.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/util/concurrent/Atomics.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/util/concurrent/Atomics.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/util/concurrent/Atomics.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/Equivalence.java

\*

/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/annotations/Beta.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/ThreadFactoryBuilder.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/ListeningExecutorService.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/UncaughtExceptionHandler.java

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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/AtomicLongMap.java

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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/PatternCompiler.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/CommonMatcher.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/CommonPattern.java

\*

/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/JdkPattern.java

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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/MutableValueGraph.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/AbstractGraph.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/AbstractUndirectedNetworkConnections.java

\*

/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/MoreCollectors.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/ImmutableValueGraph.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/ElementOrder.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/ValueGraphBuilder.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-

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jar/com/google/common/collect/HashMultimapGwtSerializationDependencies.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/NetworkConnections.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/Comparators.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/GraphConstants.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/ForwardingGraph.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/AbstractNetwork.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/EdgesConnecting.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/GraphBuilder.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/UndirectedMultiNetworkConnections.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/EndpointPairIterator.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/ForwardingValueGraph.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/AbstractValueGraph.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/EndpointPair.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/DirectedNetworkConnections.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/ImmutableMultisetGwtSerializationDependencies.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/StandardMutableNetwork.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/UndirectedNetworkConnections.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/ValueGraph.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/StandardMutableValueGraph.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/UndirectedGraphConnections.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/ForwardingNetwork.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/MultiEdgesConnecting.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/RangeGwtSerializationDependencies.java

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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/LinkedHashMapMultimapGwtSerializationDependencies.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/ArrayListMultimapGwtSerializationDependencies.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/StandardValueGraph.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/DirectedGraphConnections.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/StandardNetwork.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/CollectCollectors.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/MapRetrievalCache.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/DirectedMultiNetworkConnections.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/GraphConnections.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/AbstractGraphBuilder.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/NetworkBuilder.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/MapIteratorCache.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/AbstractDirectedNetworkConnections.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/graph/StandardMutableGraph.java
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* express
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* the License.
*/
/**
* Holder for web specializations of methods of { @code Doubles }. Intended to be empty for regular

```

\* version.

\*/

Found in path(s):

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/DoublesMethodsForWeb.java

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\*/

/\*\*

\* Holder for web specializations of methods of { @code Ints }. Intended to be empty for regular

\* version.

\*/

Found in path(s):

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/IntsMethodsForWeb.java

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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableSortedAsList.java

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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableBiMapFauxverideShim.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/package-info.java

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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/Resources.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-

jar/com/google/common/base/Predicates.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/base/Function.java  
\*  
/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/base/Throwables.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/eventbus/AsyncEventBus.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/primitives/Primitives.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/base/FinalizableWeakReference.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/util/concurrent/ExecutionList.java  
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jar/com/google/common/eventbus/DeadEvent.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/Files.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/eventbus/package-info.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/util/concurrent/package-info.java  
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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/eventbus/Subscribe.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/io/MultiInputStream.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/io/Flushables.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-



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jar/com/google/common/base/Supplier.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/base/FinalizableReference.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/Interners.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/io/Closeables.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/eventbus/EventBus.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/io/LineBuffer.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/base/Suppliers.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/package-
info.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/util/concurrent/DirectExecutor.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/EnumMultiset.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/HashBiMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/eventbus/AllowConcurrentEvents.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/io/LittleEndianDataInputStream.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/base/Defaults.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/io/CountingOutputStream.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/util/concurrent/ListenableFuture.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/base/AbstractIterator.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/base/Functions.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/io/CountingInputStream.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/io/LittleEndianDataOutputStream.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/io/CharStreams.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/io/ByteStreams.java

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jar/com/google/common/hash/LittleEndianByteArray.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/util/concurrent/AsyncCallable.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/hash/FarmHashFingerprint64.java

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/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/io/ReaderInputStream.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/hash/MacHashFunction.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/ConsumingQueueIterator.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/util/concurrent/CombinedFuture.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/util/concurrent/Platform.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/util/concurrent/InterruptibleTask.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/util/concurrent/AggregateFutureState.java

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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/CompactHashing.java

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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/AbstractMultiset.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingMapEntry.java  
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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Ordering.java  
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/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/TreeMultimap.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/LinkedListMultimap.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/AbstractSortedSetMultimap.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ConcurrentHashMultiset.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/HashMultimap.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/AbstractSetMultimap.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableList.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/NullsLastOrdering.java  
\*  
/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/AbstractBiMap.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/AbstractListMultimap.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-

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jar/com/google/common/collect/Multimap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/Iterators.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/Interner.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/Synchronized.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/ComparatorOrdering.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/CompoundOrdering.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/ForwardingSet.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/AbstractMapBasedMultimap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/ForwardingIterator.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/ForwardingSortedMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/package-info.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/ForwardingMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/MutableClassToInstanceMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/AbstractMapBasedMultiset.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/UsingToStringOrdering.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/Iterables.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/TreeMultiset.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/NaturalOrdering.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/Lists.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/ExplicitOrdering.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/RegularImmutableSet.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/LinkedHashMultiset.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/ArrayListMultimap.java
*

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/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingList.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ByFunctionOrdering.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingMultimap.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ListMultimap.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ReverseOrdering.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/SetMultimap.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/AbstractMapEntry.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/LexicographicalOrdering.java  
\*  
/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/LinkedHashMultimap.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/HashMultiset.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingCollection.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ClassToInstanceMap.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Maps.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingSortedSet.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingObject.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/MapDifference.java  
\*  
/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/EnumBiMap.java

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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/ImmutableDoubleArray.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/ImmutableIntArray.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/ForwardingLock.java  
\*

/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/AbstractHashFunction.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/ImmutableLongArray.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/ForwardingCondition.java

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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/Platform.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/Internal.java

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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/Streams.java

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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/io/Java8Compatibility.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/util/concurrent/OverflowAvoidingLockSupport.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/math/ToDoubleRounder.java

\*

/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/math/BigDecimalMath.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/hash/Java8Compatibility.java

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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/util/concurrent/IgnoreJRERRequirement.java  
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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/JdkBackedImmutableMultiset.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/collect/JdkBackedImmutableSet.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/hash/ImmutableSupplier.java  
\*

/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
jar/com/google/common/util/concurrent/ExecutionSequencer.java

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 \* or implied. See the License for the specific language governing permissions and limitations under  
 \* the License.  
 \*/  
 /\*  
 \* This method was written by Doug Lea with assistance from members of JCP JSR-166 Expert Group  
 \* and released to the public domain, as explained at  
 \* <http://creativecommons.org/licenses/publicdomain>  
 \*  
 \* As of 2010/06/11, this method is identical to the (package private) hash method in OpenJDK 7's  
 \* java.util.HashMap  
 class.  
 \*/

Found in path(s):

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/util/concurrent/Striped.java

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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/collect/RegularImmutableSortedMultiset.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/collect/ImmutableSortedMultisetFauxverideShim.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/collect/GeneralRange.java  
 \*

/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingSortedMultiset.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/SortedIterable.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/RangeSet.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/AbstractRangeSet.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Count.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/SortedIterables.java  
\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableSortedMultiset.java

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\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/UnsignedInts.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/WrappingExecutorService.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/AbstractScheduledService.java

\*

/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/UncheckedExecutionException.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/Weigher.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/CacheStats.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/AbstractCompositeHashFunction.java

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-

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jar/com/google/common/hash/Hashing.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/cache/AbstractLoadingCache.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/cache/package-info.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/cache/ForwardingLoadingCache.java
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/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/cache/CacheBuilderSpec.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/base/Optional.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/DescendingImmutableSortedMultiset.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/base/Ticker.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/hash/Murmur3_32HashFunction.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/hash/PrimitiveSink.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/hash/AbstractHasher.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/cache/RemovalListeners.java
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jar/com/google/common/primitives/UnsignedLong.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/reflect/Types.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/util/concurrent/ForwardingExecutorService.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/base/PairwiseEquivalence.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/util/concurrent/CycleDetectingLockFactory.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/TreeRangeSet.java

```

```

* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/collect/RegularContiguousSet.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/base/Absent.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/cache/RemovalNotification.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/util/concurrent/AbstractListeningExecutorService.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/hash/Hasher.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/util/concurrent/ForwardingListeningExecutorService.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/hash/HashCode.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/net/MediaType.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/hash/AbstractStreamingHasher.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/hash/Crc32cHashFunction.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/util/concurrent/Uninterruptibles.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/net/HostAndPort.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/hash/Murmur3_128HashFunction.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/base/Enums.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/math/MathPreconditions.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/hash/MessageDigestHashFunction.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/primitives/UnsignedLongs.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/cache/RemovalListener.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/util/concurrent/ListeningScheduledExecutorService.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/net/HttpHeaders.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-
jar/com/google/common/cache/RemovalCause.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/math/package-
info.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-

```

jar/com/google/common/base/FunctionalEquivalence.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/util/concurrent/AsyncFunction.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/cache/Cache.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/hash/BloomFilterStrategies.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/math/BigIntegerMath.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/cache/AbstractCache.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/util/concurrent/ExecutionError.java  
 \*  
 /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/math/IntMath.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/hash/HashingOutputStream.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/collect/EmptyContiguousSet.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/math/DoubleMath.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/hash/Funnels.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/cache/CacheLoader.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/hash/AbstractNonStreamingHashFunction.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/hash/Funnel.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/cache/ForwardingCache.java  
 \*  
 /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/collect/Queues.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/math/LongMath.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/math/DoubleUtils.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/collect/AbstractSortedMultiset.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/cache/LoadingCache.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/primitives/ParseRequest.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-  
 jar/com/google/common/util/concurrent/FutureCallback.java  
 \* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-

jar/com/google/common/hash/BloomFilter.java

\*

/opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-

jar/com/google/common/hash/HashFunction.java

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\*/

/\*\*

\* Returns an array containing all of the elements in the specified collection. This method

\* returns the elements in the order they are returned by the collection's iterator. The returned

\* array is "safe" in that no references to it are maintained by the collection. The caller is

\* thus free to modify the returned

array.

\*

\* <p>This method assumes that the collection size doesn't change while the method is running.

\*

\* <p>TODO(kevinb): support concurrently modified collections?

\*

\* @param c the collection for which to return an array of elements

\*/

Found in path(s):

\* /opt/cola/permits/1119092615\_1608716259.54/0/guava-30-1-jre-sources-1-

jar/com/google/common/collect/ObjectArrays.java

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\* /opt/cola/permits/1135840457\_1613613080.13/0/commons-logging-1-1-sources-9-

jar/org/apache/commons/logging/LogConfigurationException.java

\* /opt/cola/permits/1135840457\_1613613080.13/0/commons-logging-1-1-sources-9-

jar/org/apache/commons/logging/impl/Log4JLogger.java

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jar/org/apache/commons/logging/impl/LogFactoryImpl.java

```
*
/opt/cola/permits/1135840457_1613613080.13/0/commons-logging-1-1-sources-9-
jar/org/apache/commons/logging/impl/Jdk13LumberjackLogger.java
* /opt/cola/permits/1135840457_1613613080.13/0/commons-logging-1-1-sources-9-
jar/org/apache/commons/logging/impl/SimpleLog.java
* /opt/cola/permits/1135840457_1613613080.13/0/commons-logging-1-1-sources-9-
jar/org/apache/commons/logging/impl/Jdk14Logger.java
* /opt/cola/permits/1135840457_1613613080.13/0/commons-logging-1-1-sources-9-
jar/org/apache/commons/logging/LogSource.java
* /opt/cola/permits/1135840457_1613613080.13/0/commons-logging-1-1-sources-9-
jar/org/apache/commons/logging/impl/NoOpLog.java
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jar/org/apache/commons/logging/impl/LogKitLogger.java
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* /opt/cola/permits/1135840457_1613613080.13/0/commons-logging-1-1-sources-9-
jar/org/apache/commons/logging/impl/ServletContextCleaner.java
```

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# 1.28 commons-codec 1.14

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```

Found in path(s):

```
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/tools/rmi/Proxy.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/compiler/ast/Visitor.java
*
 /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/compiler/ast/Member.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/tools/reflect/CannotInvokeException.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/CtNewWrappedConstructor.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/LoaderClassPath.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/tools/rmi/AppletServer.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/CtConstructor.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/tools/rmi/ObjectNotFoundException.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/compiler/ast/ArrayInit.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/Mnemonic.java
*
 /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/CtNewClass.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/SignatureAttribute.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/CtArray.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/convert/TransformNewClass.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/compiler/Parser.java
```

\* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/util/proxy/DefineClassHelper.java

\* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/analysis/SubroutineScanner.java

\* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/CtMember.java

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/opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/ExceptionTable.java

\* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/expr/ConstructorCall.java

\* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/tools/rmi/StubGenerator.java

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\* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/compiler/CodeGen.java

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\* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/runtime/DotClass.java

\* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/URLClassPath.java

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/opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/util/proxy/ProxyObjectInputStream.java

\* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/InstructionPrinter.java

\* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/NestMembersAttribute.java

\* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/tools/reflect/CannotReflectException.java

\* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/scopedpool/ScopedClassPoolFactoryImpl.java

\* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/LocalVariableAttribute.java

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/opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/compiler/KeywordTable.java

\* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/CodeIterator.java

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 /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/ConstantAttribute.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/runtime/Desc.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/util/proxy/ProxyFactory.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/util/proxy/FactoryHelper.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/CtNewMethod.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-

```

jar/javassist/tools/rmi/RemoteException.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/compiler/ast/InstanceOfExpr.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/compiler/ast/Declarator.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/CtClassType.java
*
/opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/annotation/NoSuchClassError.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/CtBehavior.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/compiler/ast/Expr.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/ByteArray.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/tools/rmi/RemoteRef.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/stackmap/TypedBlock.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/compiler/ast/Keyword.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/compiler/MemberCodeGen.java
*
/opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/Descriptor.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/tools/reflect/Reflection.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/ClassFileWriter.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/analysis/Frame.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/tools/reflect/Compiler.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/analysis/FramePrinter.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/compiler/ast/DoubleConst.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/stackmap/TypeTag.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/scopedpool/ScopedClassPoolRepositoryImpl.java
*
/opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/convert/TransformAfter.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/analysis/Analyzer.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/util/proxy/SerializedProxy.java

```

\* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/compiler/MemberResolver.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/compiler/ast/StringL.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/analysis/Util.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/ParameterAnnotationsAttribute.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/tools/web/BadHttpRequest.java  
 \*  
 /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/BadBytecode.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/ClassPool.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/util/proxy/Proxy.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/CtNewWrappedMethod.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/analysis/Type.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/SyntheticAttribute.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/tools/rmi/ObjectImporter.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/expr/ExprEditor.java  
 \*  
 /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/compiler/ProceedHandler.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/ExceptionsAttribute.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/convert/TransformAccessArrayField.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/AnnotationDefaultAttribute.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/scopedpool/SoftValueHashMap.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/tools/reflect/Loader.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/CtField.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/tools/Dump.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/compiler/ast/MethodDecl.java  
 \*  
 /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/compiler/CompileError.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/expr/Handler.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/ByteStream.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-

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jar/javassist/bytecode/stackmap/Tracer.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/util/HotSwapAgent.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/expr/FieldAccess.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/InnerClassesAttribute.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/tools/web/Viewer.java
*
/opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/util/proxy/ProxyObject.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/convert/TransformCall.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/compiler/ast/Symbol.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/ByteArrayClassPath.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/compiler/AccessorMaker.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/compiler/Lex.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/compiler/ast/ASTList.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/expr/MethodCall.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/SerialVersionUID.java
*
/opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/convert/TransformBefore.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/runtime/Cflow.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/convert/Transformer.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/AnnotationsAttribute.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/LocalVariableTypeAttribute.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/DuplicateMemberException.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/util/proxy/MethodFilter.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/analysis/MultiArrayType.java
*
/opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/tools/reflect/Metaobject.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/stackmap/MapMaker.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/compiler/JvstTypeChecker.java

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\* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/convert/TransformReadField.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/Loader.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/StackMapTable.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/ClassPoolTail.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/ClassPath.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/util/HotSwapper.java  
 \*  
 /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/compiler/Javac.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/analysis/ControlFlow.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/Opcode.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/analysis/Executor.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/tools/web/Webserver.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/LongVector.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/util/proxy/ProxyObjectOutputStream.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/compiler/ast/CastExpr.java  
 \*  
 /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/DeprecatedAttribute.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/CtClass.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/Translator.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/tools/rmi/Sample.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/CodeAttribute.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/expr/NewArray.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/ClassClassPath.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/compiler/ast/IntConst.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/util/proxy/MethodHandler.java  
 \*  
 /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/convert/TransformNew.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/scopedpool/ScopedClassPoolRepository.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/expr/Cast.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/compiler/NoFieldException.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/compiler/SyntaxError.java  
 \* /opt/cola/permits/1135872664\_1613621010.52/0/javassist-3-27-0-ga-sources-1-

```
jar/javassist/compiler/TokenId.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/util/proxy/RuntimeSupport.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/compiler/ast/Pair.java
*
/opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/convert/TransformWriteField.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/CtNewConstructor.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/ConstPool.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/analysis/MultiType.java
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```

```
/*
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*/
```

Found in path(s):

```
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/annotation/MemberValue.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/annotation/EnumMemberValue.java
*
/opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/annotation/ByteMemberValue.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/annotation/ClassMemberValue.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/annotation/MemberValueVisitor.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/annotation/FloatMemberValue.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/annotation/IntegerMemberValue.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
```

```

jar/javassist/bytecode/annotation/StringMemberValue.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/annotation/ArrayMemberValue.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/annotation/BooleanMemberValue.java
*
/opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/annotation/LongMemberValue.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/annotation/CharMemberValue.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/annotation/Annotation.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/annotation/ShortMemberValue.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/annotation/AnnotationMemberValue.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-
jar/javassist/bytecode/annotation/DoubleMemberValue.java

```

## 1.30 zt 1.14

### 1.30.1 Available under license :

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```

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*/

```

Found in path(s):

```

* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-
jar/org/zeroturnaround/zip/extra/AsiExtraField.java
*

```



/opt/cola/permits/1135879776\_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/extra/ZipLong.java  
\* /opt/cola/permits/1135879776\_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/extra/ZipExtraField.java  
\* /opt/cola/permits/1135879776\_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/extra/ZipShort.java  
\* /opt/cola/permits/1135879776\_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/extra/ExtraFieldUtils.java  
\* /opt/cola/permits/1135879776\_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/extra/ZipConstants.java  
\* /opt/cola/permits/1135879776\_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/extra/UnrecognizedExtraField.java  
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\* /opt/cola/permits/1135879776\_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/commons/FileExistsException.java  
\*  
/opt/cola/permits/1135879776\_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/commons/IOUtils.java  
\* /opt/cola/permits/1135879776\_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/commons/FileUtilsV2\_2.java  
\* /opt/cola/permits/1135879776\_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/commons/StringBuilderWriter.java  
\* /opt/cola/permits/1135879776\_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/commons/FilenameUtils.java  
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Found in path(s):

- \* /opt/cola/permits/1135879776\_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/ZTFileUtil.java
- \* /opt/cola/permits/1135879776\_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/ZipInfoCallback.java
- \* /opt/cola/permits/1135879776\_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/NameMapper.java
- \*
- /opt/cola/permits/1135879776\_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/FileSource.java
- \* /opt/cola/permits/1135879776\_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/ZipEntryUtil.java
- \* /opt/cola/permits/1135879776\_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/timestamps/PreJava8TimestampStrategy.java
- \* /opt/cola/permits/1135879776\_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/Zips.java
- \* /opt/cola/permits/1135879776\_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/timestamps/TimestampStrategy.java
- \* /opt/cola/permits/1135879776\_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/ByteSource.java
- \* /opt/cola/permits/1135879776\_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/timestamps/Java8TimestampStrategy.java
- \* /opt/cola/permits/1135879776\_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/ZipEntrySource.java
- \*
- /opt/cola/permits/1135879776\_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/IdentityNameMapper.java
- \* /opt/cola/permits/1135879776\_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/ZipUtil.java
- \* /opt/cola/permits/1135879776\_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/timestamps/TimestampStrategyFactory.java
- \* /opt/cola/permits/1135879776\_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/ZipEntryCallback.java

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Upstream-Name: liblz4

Upstream-Contact: Yann Collet <Cyan4973@github.com>

Source: <https://github.com/lz4/lz4>

Files: \*

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```
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jar/org/objectweb/asm/signature/SignatureWriter.java
* /opt/cola/permits/1146079232_1616457494.45/0/asm-9-1-sources-jar/org/objectweb/asm/TypePath.java
* /opt/cola/permits/1146079232_1616457494.45/0/asm-9-1-sources-
jar/org/objectweb/asm/RecordComponentVisitor.java
*
/opt/cola/permits/1146079232_1616457494.45/0/asm-9-1-sources-
jar/org/objectweb/asm/signature/SignatureReader.java
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jar/org/objectweb/asm/MethodTooLargeException.java
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## 1.39 lombok 1.18.20

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rwitserloot/lombok.patcher

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```

Found in path(s):

```
* /opt/cola/permits/1218584030_1635037082.96/0/grpc-stub-1-39-0-sources-jar/io/grpc/stub/ClientCallStreamObserver.java
* /opt/cola/permits/1218584030_1635037082.96/0/grpc-stub-1-39-0-sources-jar/io/grpc/stub/ClientResponseObserver.java
* /opt/cola/permits/1218584030_1635037082.96/0/grpc-stub-1-39-0-sources-jar/io/grpc/stub/ServerCallStreamObserver.java
*
/opt/cola/permits/1218584030_1635037082.96/0/grpc-stub-1-39-0-sources-jar/io/grpc/stub/CallStreamObserver.java
```

## 1.46 grpc-protobuf 1.39.0

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\* /opt/cola/permits/1218584014\_1635037059.25/0/grpc-protobuf-1-39-0-sources-jar/io/grpc/protobuf/ProtoUtils.java  
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\* /opt/cola/permits/1218584014\_1635037059.25/0/grpc-protobuf-1-39-0-sources-jar/io/grpc/protobuf/ProtoMethodDescriptorSupplier.java  
\* /opt/cola/permits/1218584014\_1635037059.25/0/grpc-protobuf-1-39-0-sources-jar/io/grpc/protobuf/ProtoServiceDescriptorSupplier.java  
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/opt/cola/permits/1218584014\_1635037059.25/0/grpc-protobuf-1-39-0-sources-jar/io/grpc/protobuf/StatusProto.java  
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\* /opt/cola/permits/1218584014\_1635037059.25/0/grpc-protobuf-1-39-0-sources-jar/io/grpc/protobuf/ProtoFileDescriptorSupplier.java

## 1.47 alpine-keys 2.4-r1

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# 1.48 jackson 2.15.0

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## 1.51 log4j-jcl 2.17.1

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## 1.52 dom 1.0

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jar/org/apache/xerces/dom3/as/ElementEditAS.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/dom3/as/ASNotationDeclaration.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/dom3/as/ASObject.java

\*

/opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/dom3/as/CharacterDataEditAS.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/dom3/as/DOMImplementationAS.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/dom3/as/ASModel.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/dom3/as/DocumentAS.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/dom3/as/ASAttributeDeclaration.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/dom3/as/ASElementDeclaration.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/dom3/as/ASEntityDeclaration.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/dom3/as/ASNamedObjectMap.java

\*

/opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/dom3/as/ASDataType.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/dom3/as/ASContentModel.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/dom3/as/DOMASWriter.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/dom3/as/DocumentEditAS.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/dom3/as/ASObjectList.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/dom3/as/DOMASBuilder.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/dom3/as/DOMASException.java

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jar/org/apache/xerces/dom3/as/NodeEditAS.java

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\* Checks if this content model has had its min/maxOccurs values reduced for  
\* purposes of speeding up UPA. If  
so, this content model should not be used  
\* for any purpose other than checking unique particle attribution  
\*  
\* @return a boolean that says whether this content has been compacted for UPA  
\*/

Found in path(s):

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/impl/xs/models/XSCMValidator.java

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/\*\*

\* DOM Level 3 LS CR - Experimental.  
\* Create a new `LSParser`. The newly constructed parser may  
\*  
then be configured by means of its `DOMConfiguration`  
\* object, and used to parse documents by means of its `parse`  
\* method.  
\* @param mode The `mode` argument is either  
\* `MODE_SYNCHRONOUS` or `MODE_ASYNCHRONOUS`, if  
\* `mode` is `MODE_SYNCHRONOUS` then the  
\* `LSParser` that is created will operate in synchronous  
\* mode, if it's `MODE_ASYNCHRONOUS` then the

- \* `LSParser` that is created will operate in asynchronous
- \* mode.
- \* `@param schemaType` An absolute URI representing the type of the schema
- \* language used during the load of a `Document` using the
- \* newly created `LSParser`. Note that no lexical checking
- \* is done on the absolute URI. In order to create a
- \* `LSParser` for any kind of schema types (i.e. the
- \* `LSParser` will be free to use any schema

found), use the value

- \* `null`.
- \* `<p><b>Note:</b>` For W3C XML Schema [[XML Schema Part 1](http://www.w3.org/TR/2001/REC-xmlschema-1-20010502/)]
- \* , applications must use the value
- \* `"http://www.w3.org/2001/XMLSchema"`. For XML DTD [[XML 1.0](http://www.w3.org/TR/2000/REC-xml-20001006/)],
- \* applications must use the value
- \* `"http://www.w3.org/TR/REC-xml"`. Other Schema languages
- \* are outside the scope of the W3C and therefore should recommend an
- \* absolute URI in order to use this method.
- \* `@return` The newly created `LSParser` object. This
- \* `LSParser` is either synchronous or asynchronous
- \* depending on the value of the `mode` argument.
- \* `<p><b>Note:</b>` By default, the newly created `LSParser`
- \* does not contain a `DOMErrorHandler`, i.e. the value of
- \* the "[http://www.w3.org/TR/2003/WD-DOM-Level-3-Core-20030609/core.html#parameter-error-](http://www.w3.org/TR/2003/WD-DOM-Level-3-Core-20030609/core.html#parameter-error-handler)
- \* `handler`" configuration parameter is `null`. However, implementations
- \* may provide a default error handler at creation time. In that case,
- \* the initial value of the `"error-handler"` configuration
- \* parameter on the new created `LSParser` contains a
- \* reference to the default error handler.
- \* `@exception DOMException`
- \* `NOT_SUPPORTED_ERR`: Raised if the requested mode or schema type is
- \* not supported.

Found in path(s):

`/opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom/CoreDOMImplementationImpl.java`

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jar/org/apache/xerces/impl/xs/traversers/XSDocumentInfo.java  
\*  
/opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/impl/xs/traversers/XSDElementTraverser.java  
\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/xni/parser/XMLErrorHandler.java  
\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/html/dom/HTMLFrameElementImpl.java  
\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/util/XMLEntityDescriptionImpl.java  
\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/util/ShadowedSymbolTable.java  
\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/impl/xs/util/ObjectListImpl.java  
\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/wml/dom/WMLImgElementImpl.java  
\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/wml/WMLOptgroupElement.java  
\*  
/opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/xni/parser/XMLInputSource.java  
\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/wml/WMLImgElement.java  
\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/dom/DeferredCDATASectionImpl.java  
\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/impl/xs/traversers/XSDAbstractIDConstraintTraverser.java  
\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/wml/dom/WMLTimerElementImpl.java  
\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/xs/XSParticle.java  
\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/wml/dom/WMLWmlElementImpl.java  
\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/impl/dv/xs/AnySimpleDV.java  
\*

/opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
 jar/org/apache/xerces/xs/StringList.java  
 \* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
 jar/org/apache/wml/WMLTimerElement.java  
 \* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
 jar/org/apache/xerces/impl/xpath/regex/CaseInsensitiveMap.java  
 \* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
 jar/org/apache/xerces/impl/xs/opti/SchemaDOMImplementation.java  
 \* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
 jar/org/apache/xerces/impl/xs/opti/DefaultXMLDocumentHandler.java  
 \* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
 jar/org/apache/xerces/dom/DeferredElementImpl.java  
 \* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
 jar/org/apache/wml/WMLAnchorElement.java  
 \* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
 jar/org/apache/xml/serialize/HTMLSerializer.java  
 \*  
 /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
 jar/org/apache/html/dom/HTMLHtmlElementImpl.java  
 \* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
 jar/org/apache/xerces/stax/DefaultNamespaceContext.java  
 \* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
 jar/org/apache/xerces/xinclude/MultipleScopeNamespaceSupport.java  
 \* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
 jar/org/apache/xerces/impl/xs/opti/SchemaParsingConfig.java  
 \* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
 jar/org/apache/xerces/impl/dtd/XML11NSDTDValidator.java  
 \* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
 jar/org/apache/xerces/xpointer/XPointerMessageFormatter.java  
 \* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
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 \* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
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\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/jaxp/TeeXMLDocumentFilterImpl.java

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 \* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
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 jar/org/apache/xml/serialize/HTMLdtd.java

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* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
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* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
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* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
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* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
jar/org/apache/xerces/xs/XSTerm.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-

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jar/org/apache/xerces/xni/parser/XMLComponent.java
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/opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
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* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
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* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
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* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
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\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/util/ErrorHandlerWrapper.java  
\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
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/opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
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jar/org/apache/xerces/impl/dv/xs/ListDV.java
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* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
jar/org/apache/xerces/dom/DOMImplementationSourceImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
jar/org/apache/wml/WMLBrElement.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
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jar/org/apache/xerces/dom/RangeImpl.java
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/opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
jar/org/apache/xml/serialize/SerializerFactoryImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
jar/org/apache/xerces/impl/xs/XMLSchemaLoader.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
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* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
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* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
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* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
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* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
jar/org/apache/wml/WMLTableElement.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
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* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
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* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
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jar/org/apache/xerces/xs/XSObject.java
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/opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
jar/org/apache/xerces/impl/dv/SchemaDVFactory.java

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\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
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\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/jaxp/datatype/SerializedXMLGregorianCalendar.java

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\* used to check the 3 constraints against each complex type

\* (should be each model group):

\* Unique Particle

Attribution, Particle Derivation (Restriction),

\* Element Declarations Consistent.

\*/

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\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/impl/xs/traversers/XSDKeyrefTraverser.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/impl/dv/xs/DateDV.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/impl/dv/xs/DateTimeDV.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/impl/xs/traversers/XSDUniqueOrKeyTraverser.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/impl/dv/xs/MonthDV.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/impl/dv/xs/DurationDV.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/impl/dv/xs/MonthDayDV.java

\*

/opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/impl/dv/xs/TimeDV.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/impl/xs/traversers/XSAttributeChecker.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/impl/dv/xs/YearMonthDV.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/impl/xs/XSModelGroupImpl.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/impl/dv/xs/XSSimpleTypeDecl.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/impl/xs/traversers/XSDHandler.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/impl/dv/xs/DayDV.java

\* /opt/cola/permits/1257218116\_1642790294.82/0/xercesimpl-2-12-0-sources-  
jar/org/apache/xerces/impl/xs/XMLSchemaValidator.java

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Found in path(s):

```
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
jar/org/apache/xerces/impl/msg/XMLSchemaMessages.properties
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
jar/org/apache/xerces/impl/xpath/regex/message.properties
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
jar/org/apache/xerces/impl/msg/DOMMessages.properties
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
jar/org/apache/xerces/impl/msg/XPointerMessages.properties
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
jar/org/apache/xerces/impl/msg/DatatypeMessages.properties
*
/opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
jar/org/apache/xerces/impl/xpath/regex/message_fr.properties
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
jar/org/apache/xerces/impl/msg/SAXMessages.properties
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
jar/org/apache/xerces/impl/msg/XIncludeMessages.properties
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
jar/org/apache/xerces/impl/msg/XMLMessages.properties
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
jar/org/apache/xerces/impl/msg/XMLSerializerMessages.properties
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
jar/org/apache/xerces/impl/xpath/regex/message_ja.properties
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
jar/org/apache/xerces/impl/msg/JAXPValidationMessages.properties
```

## 1.53 netty 2.0.34.Final

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```
INet/bytebuddy/asm/Advice$ArgumentHandler$ForInstrumentedMethod$Default$CopyingFnet/bytebuddy/asm/A  
dvice$ArgumentHandler$ForInstrumentedMethod$DefaultAdvice.java5Lnet/bytebuddy/build/HashCodeAndEquals  
Plugin$Enhance;(net/bytebuddy/asm/Advice$ArgumentHandlernet/bytebuddy/asm/Advice
```

```

ArgumentHandler>net/bytebuddy/asm/Advice$ArgumentHandler$ForInstrumentedMethodForInstrumentedMethod
Default3net/bytebuddy/build/HashCodeAndEqualsPlugin$Enhance+net/bytebuddy/build/HashCodeAndEqualsPlugi
nEnhance6net/bytebuddy/description/type/TypeDescription$Generic.net/bytebuddy/description/type/TypeDescriptio
nGenericCopying<init>(Lnet/bytebuddy/description/method/MethodDescription;Lnet/bytebuddy/description/type/T
ypeDefinition;Ljava/util/TreeMap;Lnet/bytebuddy/description/type/TypeDefinition;)V(Lnet/bytebuddy/description/
method/MethodDescription;Lnet/bytebuddy/description/type/TypeDefinition;Ljava/util/TreeMap<Ljava/lang/String;
Lnet/bytebuddy/description/type/TypeDefinition;>;Lnet/bytebuddy/description/type/TypeDefinition;)V
thisPLnet/bytebuddy/asm/Advice$ArgumentHandler$ForInstrumentedMethod$Default$Copying;instrumentedMeth
od4Lnet/bytebuddy/description/method/MethodDescription;exitType/Lnet/bytebuddy/description/type/TypeDefiniti
on;
namedTypesVLjava/util/TreeMap<Ljava/lang/String;Lnet/bytebuddy/description/type/TypeDefinition;>;Ljava/util/
TreeMap; enterTypeargument(I)I"# ,2net/bytebuddy/description/method/MethodDescription.getStackSize()I01/2$%
4-
net/bytebuddy/description/type/TypeDefinition63()Lnet/bytebuddy/implementation/bytecode/StackSize;0879/net/by
tebuddy/implementation/bytecode/StackSize;getSize=1
<>@(& @java/util/TreeMapBvalues()Ljava/util/Collection;DE
CFof(Ljava/util/Collection;)IHI
<J)% LoffsetIvariableisStatic()ZQR/S
getParameters2()Lnet/bytebuddy/description/method/ParameterList;UV/W.net/bytebuddy/description/method/Para
meterListYsize[1Zjava/lang/Void^TYPELjava/lang/Class;`a _b
represents(Ljava/lang/reflect/Type;)Zde7f
C\indexisCopyingArgumentsprepare((Lnet/bytebuddy/jar/asm/MethodVisitor;)I#net/bytebuddy/jar/asm/MethodVisi
tormvisitVarInsn(II)Vop
nqSINGLE1Lnet/bytebuddy/implementation/bytecode/StackSize;st <uZEROwt
<xiterator()Ljava/util/Iterator;z{Zjava/util/Iterator~hasNextRnext()Ljava/lang/Object;5net/bytebuddy/description/m
ethod/ParameterDescriptiongetType:(Lnet/bytebuddy/description/type/TypeDescription$Generic;
asErasure2()Lnet/bytebuddy/description/type/TypeDescription;
getDescriptor()Ljava/lang/String;net/bytebuddy/jar/asm/Type0(Ljava/lang/String;)Lnet/bytebuddy/jar/asm/Type;
getOpcode+
getOffset19maximumd(Lnet/bytebuddy/implementation/bytecode/StackSize;)Lnet/bytebuddy/implementation/bytec
ode/StackSize;
<
stackSizetypeLnet/bytebuddy/jar/asm/Type;parameterDescription7Lnet/bytebuddy/description/method/ParameterDe
scription;
methodVisitor%Lnet/bytebuddy/jar/asm/MethodVisitor;equals(Ljava/lang/Object;)Zjava/lang/ObjectgetClass()Ljav
a/lang/Class;
hashCode
java/lang/Class1
CodeLineNumberTableLocalVariableTableLocalVariableTypeTable SignatureInnerClasses
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```

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```
* /opt/cola/permits/1257772315_1643010337.24/0/dagger-2-4-sources-jar/dagger/Reusable.java
```



```
* /opt/cola/permits/1257772315_1643010337.24/0/dagger-2-4-sources-jar/dagger/internal/ProviderOfLazy.java
* /opt/cola/permits/1257772315_1643010337.24/0/dagger-2-4-sources-jar/dagger/Binds.java
* /opt/cola/permits/1257772315_1643010337.24/0/dagger-2-4-sources-jar/dagger/internal/Preconditions.java
*
/opt/cola/permits/1257772315_1643010337.24/0/dagger-2-4-sources-jar/dagger/internal/DoubleCheck.java
* /opt/cola/permits/1257772315_1643010337.24/0/dagger-2-4-sources-
jar/dagger/multibindings/ElementsIntoSet.java
* /opt/cola/permits/1257772315_1643010337.24/0/dagger-2-4-sources-jar/dagger/multibindings/IntoMap.java
* /opt/cola/permits/1257772315_1643010337.24/0/dagger-2-4-sources-jar/dagger/multibindings/package-info.java
* /opt/cola/permits/1257772315_1643010337.24/0/dagger-2-4-sources-jar/dagger/multibindings/IntoSet.java
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```
* /opt/cola/permits/1257772315_1643010337.24/0/dagger-2-4-sources-jar/dagger/Module.java
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## 1.55 paranamer 2.5.1

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jar/com/thoughtworks/paranamer/BytecodeReadingParanamer.java

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jar/com/thoughtworks/paranamer/NullParanamer.java

\* /opt/cola/permits/1257772269\_1643010353.74/0/paranamer-2-5-1-sources-  
jar/com/thoughtworks/paranamer/AdaptiveParanamer.java

\* /opt/cola/permits/1257772269\_1643010353.74/0/paranamer-2-5-1-sources-  
jar/com/thoughtworks/paranamer/ParameterNamesNotFoundException.java

\*

/opt/cola/permits/1257772269\_1643010353.74/0/paranamer-2-5-1-sources-  
jar/com/thoughtworks/paranamer/CachingParanamer.java

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jar/com/thoughtworks/paranamer/JavadocParanamer.java

## 1.56 annotations 4.1.1.4

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\* /opt/cola/permits/1258811491\_1643111603.33/0/annotations-4-1-1-4-sources-  
jar/android/annotation/SuppressLint.java  
\* /opt/cola/permits/1258811491\_1643111603.33/0/annotations-4-1-1-4-sources-  
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## 1.57 animal-sniffer-annotation 1.19

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## 1.58 error\_prone\_annotations 2.3.3

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\* /opt/cola/permits/1264660152\_1643871085.34/0/error-prone-annotations-2-3-3-sources-jar/com/google/errorprone/annotations/CompatibleWith.java

\* /opt/cola/permits/1264660152\_1643871085.34/0/error-prone-annotations-2-3-3-sources-jar/com/google/errorprone/annotations/FormatMethod.java

\* /opt/cola/permits/1264660152\_1643871085.34/0/error-prone-annotations-2-3-3-sources-jar/com/google/errorprone/annotations/MustBeClosed.java

\*

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\* /opt/cola/permits/1264660152\_1643871085.34/0/error-prone-annotations-2-3-3-sources-jar/com/google/errorprone/annotations/DoNotCall.java  
\* /opt/cola/permits/1264660152\_1643871085.34/0/error-prone-annotations-2-3-3-sources-jar/com/google/errorprone/annotations/concurrent/GuardedBy.java  
\*

/opt/cola/permits/1264660152\_1643871085.34/0/error-prone-annotations-2-3-3-sources-jar/com/google/errorprone/annotations/CheckReturnValue.java

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\* /opt/cola/permits/1264660152\_1643871085.34/0/error-prone-annotations-2-3-3-sources-jar/com/google/errorprone/annotations/concurrent/LockMethod.java  
\* /opt/cola/permits/1264660152\_1643871085.34/0/error-prone-annotations-2-3-3-sources-jar/com/google/errorprone/annotations/concurrent/UnlockMethod.java

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jar/com/google/errorprone/annotations/CompileTimeConstant.java
* /opt/cola/permits/1264660152_1643871085.34/0/error-prone-annotations-2-3-3-sources-
jar/com/google/errorprone/annotations/SuppressPackageLocation.java
* /opt/cola/permits/1264660152_1643871085.34/0/error-prone-annotations-2-3-3-sources-
jar/com/google/errorprone/annotations/Immutable.java
*
/opt/cola/permits/1264660152_1643871085.34/0/error-prone-annotations-2-3-3-sources-
jar/com/google/errorprone/annotations/RequiredModifiers.java
* /opt/cola/permits/1264660152_1643871085.34/0/error-prone-annotations-2-3-3-sources-
jar/com/google/errorprone/annotations/Var.java
* /opt/cola/permits/1264660152_1643871085.34/0/error-prone-annotations-2-3-3-sources-
jar/com/google/errorprone/annotations/ForOverride.java
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jar/com/google/errorprone/annotations/concurrent/LazyInit.java
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jar/com/google/errorprone/annotations/CanIgnoreReturnValue.java
* /opt/cola/permits/1264660152_1643871085.34/0/error-prone-annotations-2-3-3-sources-
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```

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jar/org/picocontainer/injectors/ProviderAdapter.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/ComponentLifecycle.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/security/CustomPermissionsURLClassLoader.java  
\*  
/opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/ComponentMonitorStrategy.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/behaviors/Stored.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/injectors/FactoryInjector.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/references/SimpleReference.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/behaviors/Guarded.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/injectors/Provider.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/injectors/CompositeInjector.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/Injector.java  
\*  
/opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/injectors/InjectInto.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/references/ThreadLocalMapObjectReference.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/injectors/CompositeInjection.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/injectors/Injector.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/injectors/MultiInjector.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/ObjectReference.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/behaviors/Decorated.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/injectors/Reinjection.java  
\*

/opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/references/ThreadLocalReference.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/injectors/Reinjector.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/injectors/MultiInjection.java

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\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/classname/ClassPathElement.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/classname/ClassName.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/classname/ClassLoadingPicoContainer.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/parameters/DefaultConstructorParameter.java

\*  
/opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/classname/DefaultClassLoadingPicoContainer.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/parameters/NullParameter.java

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jar/org/picocontainer/lifecycle/LifecycleState.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/lifecycle/StartableLifecycleStrategy.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/visitors/MethodCallingVisitor.java

\*

/opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/lifecycle/AbstractMonitoringLifecycleStrategy.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/visitors/TraversalCheckingVisitor.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/converters/Converter.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/lifecycle/ReflectionLifecycleStrategy.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/PicoVisitor.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/ComponentAdapter.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/lifecycle/JavaEE5LifecycleStrategy.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/Converters.java  
\*

/opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/LifecycleStrategy.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/visitors/VerifyingVisitor.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/lifecycle/DefaultLifecycleState.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/lifecycle/CompositeLifecycleStrategy.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/lifecycle/ReflectionLifecycleException.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/visitors/AbstractPicoVisitor.java

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\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/injectors/AnnotatedFieldInjection.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/injectors/NamedFieldInjector.java  
\*

/opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/Automated.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/Locked.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/NameBinding.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/AdaptingBehavior.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/PropertyApplicator.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/AnnotatedFieldInjector.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/monitors/LifecycleComponentMonitor.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/PicoContainer.java  
\*  
/opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/Automating.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/ComponentFactory.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/adapters/AbstractAdapter.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/Injectors.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/Characteristics.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/PropertyApplying.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/annotations/Inject.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/containers/TransientPicoContainer.java  
\*  
/opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/DefaultPicoContainer.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/lifecycle/NullLifecycleStrategy.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/parameters/BasicComponentParameter.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/Synchronizing.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/NamedMethodInjector.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/PicoVerificationException.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/PicoException.java

\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/annotations/Cache.java  
\*  
/opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/containers/CommandLinePicoContainer.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/TypedFieldInjection.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/adapters/InstanceAdapter.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/TypedFieldInjector.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/NamedFieldInjection.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/parameters/CollectionComponentParameter.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/Locking.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/annotations/Nullable.java  
\*  
/opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/Behaviors.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/AbstractInjector.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/BehaviorFactory.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/PicoBuilder.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/InjectionFactory.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/AnnotatedMethodInjector.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/ImplementationHiding.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/HiddenImplementation.java  
\*  
/opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/parameters/ComponentParameter.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/containers/ImmutablePicoContainer.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/Synchronized.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/SetterInjector.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/PicoClassNotFoundException.java

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Found in path(s):

\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/monitors/NullComponentMonitor.java

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\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/behaviors/AbstractBehavior.java

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\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/behaviors/Decorating.java  
\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-  
jar/org/picocontainer/behaviors/FieldDecorating.java



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* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/monitors/ComponentMonitorHelper.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/monitors/WriterComponentMonitor.java
*

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/opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/monitors/ConsoleComponentMonitor.java

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* Original code by the committers *
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* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/containers/AbstractDelegatingMutablePicoContainer.java

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* Original Code By: Centerline Computers, Inc. *
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* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-

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jar/org/picocontainer/injectors/PrimitiveMemberChecker.java

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* Idea by Rachel Davies, Original code by various *
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\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/containers/CompositePicoContainer.java

\* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/MutablePicoContainer.java

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jar/org/picocontainer/monitors/AbstractComponentMonitor.java

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* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/behaviors/AbstractBehaviorFactory.java

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* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/containers/PropertiesPicoContainer.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/injectors/MethodInjector.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/behaviors/Intercepting.java
*

```

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/opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/PicoLifecycleException.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/injectors/ForgetfulConstructorInjection.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/behaviors/Intercepted.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/containers/SystemPropertiesPicoContainer.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/containers/CommandLineArgumentsPicoContainer.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/injectors/ParameterNameBinding.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/parameters/AbstractParameter.java
*
/opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/injectors/SingleMemberInjector.java
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jar/org/picocontainer/composers/RegexComposer.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/monitors/ComposingMonitor.java
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Found in path(s):
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/parameters/ConstantParameter.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/Parameter.java
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- \* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/Behavior.java
- \* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/containers/EmptyPicoContainer.java

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- \* /opt/cola/permits/1266565840\_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/ThreadCached.java
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```

jar/org/picocontainer/behaviors/Guarding.java
*
/opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/injectors/SetterInjection.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/injectors/MethodInjection.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/injectors/AnnotatedMethodInjection.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/injectors/AdaptingInjection.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/injectors/ConstructorInjection.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/behaviors/ThreadCaching.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/injectors/ConstructorInjector.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/behaviors/Storing.java
*
/opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/behaviors/Caching.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/PicoCompositionException.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/behaviors/OptInCaching.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-
jar/org/picocontainer/behaviors/Cached.java

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## 1.60 handy-uri-templates 2.1.8

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Found in path(s):

\* /opt/cola/permits/1273317603\_1645099869.69/0/handy-uri-templates-2-1-8-sources-jar/com/damnhandy/uri/template/impl/Operator.java

\* /opt/cola/permits/1273317603\_1645099869.69/0/handy-uri-templates-2-1-8-sources-jar/com/damnhandy/uri/template/Expression.java

\* /opt/cola/permits/1273317603\_1645099869.69/0/handy-uri-templates-2-1-8-sources-jar/com/damnhandy/uri/template/UriUtil.java

\*

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\* /opt/cola/permits/1273317603\_1645099869.69/0/handy-uri-templates-2-1-8-sources-jar/com/damnhandy/uri/template/impl/Modifier.java

\* /opt/cola/permits/1273317603\_1645099869.69/0/handy-uri-templates-2-1-8-sources-jar/com/damnhandy/uri/template/VariableExpansionException.java

\* /opt/cola/permits/1273317603\_1645099869.69/0/handy-uri-templates-2-1-8-sources-jar/com/damnhandy/uri/template/VarName.java

\* /opt/cola/permits/1273317603\_1645099869.69/0/handy-uri-templates-2-1-8-sources-jar/com/damnhandy/uri/template/VarExploder.java

\* /opt/cola/permits/1273317603\_1645099869.69/0/handy-uri-templates-2-1-8-sources-jar/com/damnhandy/uri/template/impl/VarSpec.java

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\*

/opt/cola/permits/1273317603\_1645099869.69/0/handy-uri-templates-2-1-8-sources-jar/com/damnhandy/uri/template/impl/UriTemplateParser.java

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\* /opt/cola/permits/1273317603\_1645099869.69/0/handy-uri-templates-2-1-8-sources-jar/META-INF/maven/com.damnhandy/handy-uri-templates/pom.xml

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\* /opt/cola/permits/1273317603\_1645099869.69/0/handy-uri-templates-2-1-8-sources-jar/com/damnhandy/uri/template/MalformedUriTemplateException.java

## 1.61 javax-annotation-api 1.3.2

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\* /opt/cola/permits/1287386049\_1647249958.14/0/error-prone-annotations-2-10-0-sources-jar/com/google/errorprone/annotations/concurrent/LockMethod.java

\* /opt/cola/permits/1287386049\_1647249958.14/0/error-prone-annotations-2-10-0-sources-jar/com/google/errorprone/annotations/concurrent/UnlockMethod.java

\*

/opt/cola/permits/1287386049\_1647249958.14/0/error-prone-annotations-2-10-0-sources-jar/com/google/errorprone/annotations/NoAllocation.java

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\* /opt/cola/permits/1287386049\_1647249958.14/0/error-prone-annotations-2-10-0-sources-jar/com/google/errorprone/annotations/MustBeClosed.java

\* /opt/cola/permits/1287386049\_1647249958.14/0/error-prone-annotations-2-10-0-sources-jar/com/google/errorprone/annotations/CompatibleWith.java

\*

/opt/cola/permits/1287386049\_1647249958.14/0/error-prone-annotations-2-10-0-sources-jar/com/google/errorprone/annotations/DoNotMock.java

\* /opt/cola/permits/1287386049\_1647249958.14/0/error-prone-annotations-2-10-0-sources-jar/com/google/errorprone/annotations/FormatMethod.java

\* /opt/cola/permits/1287386049\_1647249958.14/0/error-prone-annotations-2-10-0-sources-jar/com/google/errorprone/annotations/FormatString.java

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\* /opt/cola/permits/1287386049\_1647249958.14/0/error-prone-annotations-2-10-0-sources-jar/com/google/errorprone/annotations/InlineMe.java

\* /opt/cola/permits/1287386049\_1647249958.14/0/error-prone-annotations-2-10-0-sources-jar/com/google/errorprone/annotations/Modifier.java

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\* /opt/cola/permits/1287386049\_1647249958.14/0/error-prone-annotations-2-10-0-sources-jar/com/google/errorprone/annotations/DoNotCall.java  
\* /opt/cola/permits/1287386049\_1647249958.14/0/error-prone-annotations-2-10-0-sources-jar/com/google/errorprone/annotations/CheckReturnValue.java  
\* /opt/cola/permits/1287386049\_1647249958.14/0/error-prone-annotations-2-10-0-sources-jar/com/google/errorprone/annotations/concurrent/GuardedBy.java  
\*  
/opt/cola/permits/1287386049\_1647249958.14/0/error-prone-annotations-2-10-0-sources-jar/com/google/errorprone/annotations/OverridingMethodsMustInvokeSuper.java  
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\* /opt/cola/permits/1287386049\_1647249958.14/0/error-prone-annotations-2-10-0-sources-jar/com/google/errorprone/annotations/RequiredModifiers.java  
\* /opt/cola/permits/1287386049\_1647249958.14/0/error-prone-annotations-2-10-0-sources-jar/com/google/errorprone/annotations/CanIgnoreReturnValue.java  
\* /opt/cola/permits/1287386049\_1647249958.14/0/error-prone-annotations-2-10-0-sources-jar/com/google/errorprone/annotations/concurrent/LazyInit.java  
\*  
/opt/cola/permits/1287386049\_1647249958.14/0/error-prone-annotations-2-10-0-sources-jar/com/google/errorprone/annotations/Var.java  
\* /opt/cola/permits/1287386049\_1647249958.14/0/error-prone-annotations-2-10-0-sources-jar/com/google/errorprone/annotations/CompileTimeConstant.java  
\* /opt/cola/permits/1287386049\_1647249958.14/0/error-prone-annotations-2-10-0-sources-

```
jar/com/google/errorprone/annotations/Immutable.java
* /opt/cola/permits/1287386049_1647249958.14/0/error-prone-annotations-2-10-0-sources-
jar/com/google/errorprone/annotations/IncompatibleModifiers.java
* /opt/cola/permits/1287386049_1647249958.14/0/error-prone-annotations-2-10-0-sources-
jar/com/google/errorprone/annotations/SuppressPackageLocation.java
* /opt/cola/permits/1287386049_1647249958.14/0/error-prone-annotations-2-10-0-sources-
jar/com/google/errorprone/annotations/ForOverride.java
```

## 1.63 error\_prone\_annotations 2.11.0

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```
* /opt/cola/permits/1295545178_1648483747.7/0/error-prone-annotations-2-11-0-1-jar/META-
INF/maven/com.google.errorprone/error_prone_annotations/pom.xml
```

## 1.64 re2j 1.6

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* /opt/cola/permits/1300482759_1649149014.06/0/re2j-1-6-sources-jar/com/google/re2j/RE2J.gwt.xml
```

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\* /opt/cola/permits/1300482759\_1649149014.06/0/re2j-1-6-sources-jar/com/google/re2j/Machine.java

\* /opt/cola/permits/1300482759\_1649149014.06/0/re2j-1-6-sources-jar/com/google/re2j/Simplify.java

\* /opt/cola/permits/1300482759\_1649149014.06/0/re2j-1-6-sources-

jar/com/google/re2j/PatternSyntaxException.java

\* /opt/cola/permits/1300482759\_1649149014.06/0/re2j-1-6-sources-jar/com/google/re2j/Matcher.java

\* /opt/cola/permits/1300482759\_1649149014.06/0/re2j-1-6-sources-jar/com/google/re2j/CharGroup.java

\* /opt/cola/permits/1300482759\_1649149014.06/0/re2j-1-6-sources-jar/com/google/re2j/Utils.java

\* /opt/cola/permits/1300482759\_1649149014.06/0/re2j-1-6-sources-jar/com/google/re2j/Parser.java

\* /opt/cola/permits/1300482759\_1649149014.06/0/re2j-1-6-sources-jar/com/google/re2j/Prog.java

\*

/opt/cola/permits/1300482759\_1649149014.06/0/re2j-1-6-sources-jar/com/google/re2j/CharClass.java

\* /opt/cola/permits/1300482759\_1649149014.06/0/re2j-1-6-sources-jar/com/google/re2j/Characters.java

\* /opt/cola/permits/1300482759\_1649149014.06/0/re2j-1-6-sources-jar/com/google/re2j/UnicodeTables.java

\* /opt/cola/permits/1300482759\_1649149014.06/0/re2j-1-6-sources-jar/com/google/re2j/MachineInput.java

\* /opt/cola/permits/1300482759\_1649149014.06/0/re2j-1-6-sources-jar/com/google/re2j/Regex.java

\* /opt/cola/permits/1300482759\_1649149014.06/0/re2j-1-6-sources-jar/com/google/re2j/Unicode.java

\* /opt/cola/permits/1300482759\_1649149014.06/0/re2j-1-6-sources-jar/com/google/re2j/Compiler.java

\* /opt/cola/permits/1300482759\_1649149014.06/0/re2j-1-6-sources-jar/com/google/re2j/RE2.java

\* /opt/cola/permits/1300482759\_1649149014.06/0/re2j-1-6-sources-jar/com/google/re2j/Inst.java

\* /opt/cola/permits/1300482759\_1649149014.06/0/re2j-1-6-sources-jar/com/google/re2j/Pattern.java

\*

/opt/cola/permits/1300482759\_1649149014.06/0/re2j-1-6-sources-

jar/com/google/re2j/super/com/google/re2j/Characters.java

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```
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/base/VerifyException.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/base/Verify.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/eventbus/SubscriberExceptionContext.java
*
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/io/CharSequenceReader.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/util/concurrent/WrappingScheduledExecutorService.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/eventbus/SubscriberExceptionHandler.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/reflect/TypeVisitor.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/FilteredMultimapValues.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/AbstractTable.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/util/concurrent/Runnables.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/hash/HashingInputStream.java
*
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/base/Utf8.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/thirdparty/publicsuffix/PublicSuffixType.java
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```

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 */
/*
 * This method was rewritten in Java from an intermediate step of the Murmur hash function in
 * http://code.google.com/p/smhasher/source/browse/trunk/MurmurHash3.cpp, which contained the
 * following header:
 *
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 */
```

Found in path(s):

```
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/base/SmallCharMatcher.java
```

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 */
```

Found in path(s):

```
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/MapMaker.java
```

```
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
```

jar/com/google/common/util/concurrent/JdkFutureAdapters.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/xml/XmlEscapers.java  
\*  
/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/io/ByteArrayDataInput.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/Cut.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/util/concurrent/Callables.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/annotations/GwtIncompatible.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/util/concurrent/AbstractExecutionThreadService.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/annotations/GwtCompatible.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/escape/Escapers.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/primitives/SignedBytes.java  
\*  
/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/SparseImmutableTable.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/cache/LocalCache.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/escape/ArrayBasedCharEscaper.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/net/HostSpecifier.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/escape/Platform.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/cache/CacheBuilder.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/primitives/UnsignedBytes.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/util/concurrent/ForwardingFuture.java  
\*  
/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/net/InternetDomainName.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/util/concurrent/ForwardingFluentFuture.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/util/concurrent/ForwardingListenableFuture.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/util/concurrent/Service.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/reflect/TypeResolver.java

```

* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/base/Splitter.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/io/LineProcessor.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/MapMakerInternalMap.java
*
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/cache/ReferenceEntry.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/RegularImmutableTable.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/util/concurrent/AbstractIdleService.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/net/UrlEscapers.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/base/Platform.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/escape/ArrayBasedEscaperMap.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/util/concurrent/AbstractService.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/DenseImmutableTable.java
*
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/io/ByteProcessor.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/util/concurrent/SettableFuture.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/escape/ArrayBasedUnicodeEscaper.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/io/ByteArrayDataOutput.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/html/HtmlEscapers.java
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```

```
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Found in path(s):

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/package-info.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/base/FinalizablePhantomReference.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/LineBuffer.java

\*

/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/base/Function.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/LittleEndianDataOutputStream.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/base/Throwables.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/CountingOutputStream.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/Closeables.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/eventbus/DeadEvent.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/base/Preconditions.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/base/Supplier.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/ListenableFuture.java

\*

/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/MultiInputStream.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/primitives/Primitives.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/base/package-info.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/base/Objects.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/LineReader.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/Interners.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/eventbus/AsyncEventBus.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/CountingInputStream.java

\*

/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/eventbus/Subscribe.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/util/concurrent/package-info.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/base/FinalizableReference.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/util/concurrent/DirectExecutor.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/base/AbstractIterator.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/util/concurrent/ExecutionList.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/eventbus/package-info.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/io/ByteStreams.java  
 \*  
 /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/collect/EnumMultiset.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/base/FinalizableReferenceQueue.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/base/Functions.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/eventbus/AllowConcurrentEvents.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/collect/HashBiMap.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/io/Resources.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/base/FinalizableSoftReference.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/io/CharStreams.java  
 \*  
 /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/base/Defaults.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/base/Predicate.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/base/Charsets.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/base/Suppliers.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/base/FinalizableWeakReference.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/Files.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/util/concurrent/AbstractFuture.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-

jar/com/google/common/io/Flushables.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/eventbus/EventBus.java

\*  
/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/io/LittleEndianDataInputStream.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/base/Predicates.java

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jar/com/google/common/collect/DescendingMultiset.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/util/concurrent/ForwardingBlockingDeque.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/FilteredSetMultimap.java

\*

/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/FilteredEntryMultimap.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/RegularImmutableAsList.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/CompactLinkedHashSet.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/AbstractMultimap.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/ForwardingImmutableList.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/ForwardingImmutableMap.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/TransformedIterator.java



\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/DescendingImmutableSortedSet.java  
\*  
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\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/CompactLinkedHashMap.java  
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\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/FilteredEntrySetMultimap.java  
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\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/FilteredKeySetMultimap.java  
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/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ImmutableEnumMap.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/AbstractSortedKeySortedSetMultimap.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/AllEqualOrdering.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/UnmodifiableSortedMultiset.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ForwardingBlockingDeque.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/TreeTraverser.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ForwardingNavigableSet.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/SortedMultisetBridge.java  
\*  
/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/RangeMap.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ForwardingNavigableMap.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/CompactHashSet.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/CompactHashMap.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/FilteredKeyListMultimap.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/TransformedListIterator.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-

jar/com/google/common/collect/ForwardingImmutableSet.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/TreeRangeMap.java  
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```
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Found in path(s):

```
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/hash/MacHashFunction.java  
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/hash/LittleEndianByteArray.java  
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/util/concurrent/CombinedFuture.java  
*  
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/io/ReaderInputStream.java  
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/util/concurrent/InterruptibleTask.java  
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/util/concurrent/AggregateFutureState.java  
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/hash/FarmHashFingerprint64.java  
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/util/concurrent/AsyncCallable.java  
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/ConsumingQueueIterator.java  
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/util/concurrent/Platform.java  
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Found in path(s):

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/MoreFiles.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/MultimapBuilder.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ImmutableMapEntry.java

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/\*\*

\* Holder for web specializations of methods of { @code Floats }. Intended to be empty for regular  
\* version.

\*/

Found in path(s):

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/primitives/FloatsMethodsForWeb.java

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Found in path(s):

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/FilteredKeyMultimap.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/ListenableScheduledFuture.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/BaseEncoding.java  
\*  
/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ImmutableRangeMap.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/math/Stats.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/math/PairedStats.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/math/StatsAccumulator.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/xml/package-info.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/Closer.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/reflect/package-info.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/SmoothRateLimiter.java  
\*  
/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/hash/SipHashFunction.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/reflect/Parameter.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/FileWriteMode.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/math/PairedStatsAccumulator.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/CartesianList.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/reflect/TypeCapture.java

```

* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/hash/LongAddable.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/hash/LongAddables.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/cache/LongAddable.java
*
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/escape/package-info.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/util/concurrent/ServiceManager.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/reflect/Invokable.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/cache/LongAddables.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/html/package-info.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/io/CharSource.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/base/StandardSystemProperty.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/hash/ChecksumHashFunction.java
*
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/hash/AbstractByteHasher.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/reflect/ClassPath.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/reflect/TypeToInstanceMap.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/math/LinearTransformation.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/io/CharSink.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/io/ByteSource.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/io/ByteSink.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/reflect/ImmutableTypeToInstanceMap.java
*
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/reflect/AbstractInvocationHandler.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/util/concurrent/RateLimiter.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/ImmutableRangeSet.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-

```

jar/com/google/common/reflect/MutableTypeToInstanceMap.java  
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 */
/**
 * Holder for extra methods of {@code Objects} only in web. Intended to be empty for regular
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 */
```

Found in path(s):

```
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/base/ExtraObjectsMethodsForWeb.java
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jar/com/google/common/hash/LongAdder.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/cache/LongAdder.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/cache/Striped64.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/hash/Striped64.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/util/concurrent/AtomicDoubleArray.java
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\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/ImmutableSortedAsList.java  
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\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/LinkedHashMultiset.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/UsingToStringOrdering.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/MutableClassToInstanceMap.java  
\*  
/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/ForwardingListIterator.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/ArrayListMultimap.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/Synchronized.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ImmutableSet.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ForwardingSortedSet.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ComparatorOrdering.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/RegularImmutableSet.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ListMultimap.java  
\*  
/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/AbstractMapEntry.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ConcurrentHashMultiset.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/Iterables.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/SingletonImmutableSet.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/NullsFirstOrdering.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/EnumBiMap.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/AbstractMultiset.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/TreeMultiset.java  
\*  
/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ExplicitOrdering.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ForwardingMap.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/Lists.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/AbstractBiMap.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ForwardingMapEntry.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ReverseNaturalOrdering.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/LinkedListMultimap.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ForwardingQueue.java  
\*  
/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/HashMultiset.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-



```

jar/com/google/common/collect/AbstractMapBasedMultiset.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/AbstractSortedSetMultimap.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/Multiset.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/LexicographicalOrdering.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/Ordering.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/AbstractListMultimap.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/BiMap.java
*
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/ClassToInstanceMap.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/NaturalOrdering.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/ForwardingSortedMap.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/ReverseOrdering.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/Iterators.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/ForwardingConcurrentMap.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/TreeMultimap.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/SortedSetMultimap.java
*
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/ImmutableList.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/Multimap.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/LinkedHashMultimap.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/package-info.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/HashMultimap.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/AbstractMapBasedMultimap.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/ByFunctionOrdering.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/MapDifference.java
*

```

```
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/Sets.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/Interner.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/SetMultimap.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/NullsLastOrdering.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/AbstractIterator.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/ForwardingMultiset.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/ForwardingIterator.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/ForwardingSet.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/ForwardingList.java
*
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/ForwardingMultimap.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/Multisets.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/EnumHashMap.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/ForwardingObject.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/Maps.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/AbstractSetMultimap.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/Multimaps.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/CompoundOrdering.java
*
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/ForwardingCollection.java
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Found in path(s):

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/SortedMultiset.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/SortedMultisets.java

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\*/

/\*\*

\* Returns an array containing all of the elements in the specified collection. This method

\* returns the elements in the order they are returned by the collection's iterator. The returned

\* array is "safe" in that no references to it are maintained by the collection. The caller is

\* thus free to modify the returned

array.

\*

\* <p>This method assumes that the collection size doesn't change while the method is running.

\*

\* <p>TODO(kevinb): support concurrently modified collections?

\*

\* @param c the collection for which to return an array of elements

\*/

Found in path(s):

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/ObjectArrays.java

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 */
/*
 * This method was rewritten in Java from an intermediate step of the Murmur hash function in
 * http://code.google.com/p/smhasher/source/browse/trunk/MurmurHash3.cpp, which contained the
 * following header:
 *
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disclaims copyright to this source code.
 */
```

Found in path(s):

```
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/Hashing.java
```

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Found in path(s):

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/Traverser.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/ClosingFuture.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/AbstractBaseGraph.java

\*

/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/BaseGraph.java

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\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/Streams.java

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\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/IndexedImmutableSet.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/JdkBackedImmutableBiMap.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/JdkBackedImmutableMap.java

\*

/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/BaseImmutableMultimap.java

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/\*\*

\* Holder for web specializations of methods of { @code Shorts }. Intended to be empty for regular  
\* version.

\*/

Found in path(s):

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/primitives/ShortsMethodsForWeb.java

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\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/reflect/Reflection.java

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\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/Atomics.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/primitives/package-info.java

\*

/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/SortedLists.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/net/package-info.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/annotations/Beta.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ContiguousSet.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/ForwardingBlockingQueue.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/ThreadFactoryBuilder.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/base/Ascii.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/base/Equivalence.java

```
*
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/util/concurrent/UncaughtExceptionHandler.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/util/concurrent/ListeningExecutorService.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/util/concurrent/Monitor.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/base/Strings.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/util/concurrent/ForwardingLock.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/util/concurrent/ForwardingCondition.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/primitives/ImmutableIntArray.java
*
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/hash/AbstractHashFunction.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/primitives/ImmutableDoubleArray.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/primitives/ImmutableLongArray.java
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\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/primitives/Platform.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/util/concurrent/Internal.java

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/\*\*  
\* Holder for web specializations of methods of { @code Doubles }. Intended to be empty for regular  
\* version.  
\*/

Found in path(s):

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/primitives/DoublesMethodsForWeb.java

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\*

\* As of 2010/06/11, this method is identical to the (package private) hash method in OpenJDK 7's  
\* `java.util.HashMap`

class.

\*/

Found in path(s):

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/util/concurrent/Striped.java

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jar/com/google/common/util/concurrent/ServiceManagerBridge.java

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*/
/**
 * Not supported. <b>You are attempting to create a map that may contain a non-{@code Comparable}
 * key.</b> Proper calls will resolve to the version in {@code ImmutableSortedMap}, not this dummy
 * version.
 *
 * @throws UnsupportedOperationException always
 * @deprecated <b>Pass a key of type {@code Comparable}
 to use {@link
 *   ImmutableSortedMap#of(Comparable, Object)}.</b>
 */
```

Found in path(s):

```
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/ImmutableSortedMapFauxverideShim.java
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jar/com/google/common/hash/package-info.java
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express
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* the License.
*/
/**
* Outer class that exists solely to let us write {@code Partially.GwtIncompatible} instead of plain
* {@code GwtIncompatible}. This is more accurate for {@link Futures#catching}, which is available
* under GWT but with a slightly different signature.
*
* <p>We can't use {@code PartiallyGwtIncompatible} because then the GWT compiler
wouldn't recognize
* it as a {@code GwtIncompatible} annotation. And for {@code Futures.catching}, we need the GWT
* compiler to autostrip the normal server method in order to expose the special, inherited GWT
* version.
*/

```

Found in path(s):

```

* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/util/concurrent/Partially.java

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```

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jar/com/google/common/graph/Network.java

```

```

* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-

```

```
jar/com/google/common/graph/PredecessorsFunction.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/graph/ImmutableGraph.java
*
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/graph/MutableGraph.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/io/RecursiveDeleteOption.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/graph/SuccessorsFunction.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/graph/Graph.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/graph/ImmutableNetwork.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/graph/Graphs.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/TopKSelector.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/graph/MutableNetwork.java
*
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/io/InsecureRecursiveDeleteException.java
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```

Found in path(s):

```
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/JdkBackedImmutableSet.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/hash/ImmutableSupplier.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/util/concurrent/ExecutionSequencer.java
*
```

/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/JdkBackedImmutableMultiset.java

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\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/RegularImmutableSortedSet.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ImmutableAsList.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ComparisonChain.java

\*

/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ImmutableClassToInstanceMap.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/SingletonImmutableList.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/TableCollectors.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/DiscreteDomain.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ImmutableSortedMap.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ImmutableSortedSetFauxverideShim.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/SingletonImmutableTable.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ImmutableEnumSet.java

\*

/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/EmptyImmutableSetMultimap.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-

jar/com/google/common/collect/AbstractIndexedListIterator.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/RegularImmutableList.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/ImmutableTable.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/ComputationException.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/ImmutableSetMultimap.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/ForwardingTable.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/ArrayTable.java

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\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/PeekingIterator.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/ImmutableEntry.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/ImmutableBiMap.java  
\*  
/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/Serialization.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/HashBasedTable.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/ImmutableMapValues.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/ImmutableMultiset.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-

jar/com/google/common/collect/ImmutableMap.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/ImmutableMapKeySet.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/ImmutableSortedSet.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/ImmutableMultimap.java  
\*  
/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/CollectPreconditions.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/Tables.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/RegularImmutableMap.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/UnmodifiableIterator.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/SingletonImmutableBiMap.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/thirdparty/publicsuffix/PublicSuffixPatterns.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/StandardRowSortedTable.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/ImmutableMapEntrySet.java  
\*  
/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/Collections2.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/StandardTable.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/ImmutableCollection.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/RegularImmutableBiMap.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/Table.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/TreeBasedTable.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/ImmutableListMultimap.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/Platform.java  
\*  
/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/Range.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/EmptyImmutableListMultimap.java  
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jar/com/google/common/base/NullnessCasts.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/NullnessCasts.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/util/concurrent/NullnessCasts.java
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jar/com/google/common/util/concurrent/CycleDetectingLockFactory.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/hash/AbstractHasher.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/primitives/UnsignedInteger.java
*
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/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/primitives/UnsignedLongs.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/cache/CacheStats.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/base/FunctionalEquivalence.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/reflect/TypeParameter.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/math/DoubleMath.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/hash/MessageDigestHashFunction.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
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 jar/com/google/common/util/concurrent/ListeningScheduledExecutorService.java  
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 jar/com/google/common/collect/TreeRangeSet.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/cache/Weigher.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/net/HttpHeaders.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/base/Present.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/hash/Crc32HashFunction.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/collect/RegularContiguousSet.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/cache/LoadingCache.java  
 \*  
 /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/cache/AbstractCache.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/util/concurrent/FutureCallback.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/collect/RegularImmutableMultiset.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/hash/Murmur3\_32HashFunction.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/cache/RemovalListener.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/reflect/Types.java  
 \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
 jar/com/google/common/hash/HashCode.java

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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/math/IntMath.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/hash/Funnel.java
*
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/math/DoubleUtils.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/hash/AbstractNonStreamingHashFunction.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
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jar/com/google/common/collect/BoundType.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/hash/HashingOutputStream.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/cache/AbstractLoadingCache.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/math/LongMath.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/util/concurrent/ExecutionError.java
*
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/cache/package-info.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/hash/HashFunction.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/math/package-info.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/EmptyContiguousSet.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/util/concurrent/AbstractScheduledService.java
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jar/com/google/common/util/concurrent/Uninterruptibles.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/base/Optional.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/primitives/ParseRequest.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/AbstractSortedMultiset.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-

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jar/com/google/common/base/Enums.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/primitives/UnsignedInts.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/DescendingImmutableSortedMultiset.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/cache/RemovalCause.java
*
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/hash/AbstractCompositeHashFunction.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/primitives/UnsignedLong.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/base/Absent.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/util/concurrent/ForwardingExecutorService.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/hash/PrimitiveSink.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/hash/AbstractStreamingHasher.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/util/concurrent/ForwardingListeningExecutorService.java
*
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/hash/Funnels.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/net/MediaType.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/math/MathPreconditions.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/base/Ticker.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/cache/ForwardingCache.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/math/BigIntegerMath.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/hash/Hasher.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/util/concurrent/WrappingExecutorService.java
*
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/net/HostAndPort.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/hash/Murmur3_128HashFunction.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/cache/RemovalNotification.java

```

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/hash/BloomFilterStrategies.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/cache/RemovalListeners.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/cache/CacheLoader.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/UncheckedExecutionException.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/Queues.java  
\*  
/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/AbstractListeningExecutorService.java  
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\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/LinkedHashMapMultimapGwtSerializationDependencies.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/EndpointPairIterator.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/ForwardingNetwork.java  
\*  
/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/ForwardingGraph.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/AbstractGraph.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/ElementOrder.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/NetworkConnections.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-

jar/com/google/common/graph/UndirectedNetworkConnections.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/graph/EdgesConnecting.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/graph/MultiEdgesConnecting.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/Comparators.java  
\*  
/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/graph/AbstractGraphBuilder.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/graph/GraphConnections.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/graph/AbstractDirectedNetworkConnections.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/graph/AbstractNetwork.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/graph/ImmutableValueGraph.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/graph/ValueGraph.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/graph/UndirectedGraphConnections.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/graph/MapRetrievalCache.java  
\*  
/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/collect/HashMultimapGwtSerializationDependencies.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/graph/ValueGraphBuilder.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/graph/StandardMutableNetwork.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/graph/NetworkBuilder.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/graph/MutableValueGraph.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/graph/StandardMutableValueGraph.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/graph/ForwardingValueGraph.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/graph/GraphConstants.java  
\*  
/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/graph/UndirectedMultiNetworkConnections.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/graph/StandardMutableGraph.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/graph/EndpointPair.java

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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/graph/AbstractValueGraph.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/graph/StandardValueGraph.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/graph/DirectedMultiNetworkConnections.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/graph/GraphBuilder.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/ArrayListMultimapGwtSerializationDependencies.java
*
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/graph/AbstractUndirectedNetworkConnections.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/RangeGwtSerializationDependencies.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/graph/DirectedGraphConnections.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/graph/MapIteratorCache.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/CollectCollectors.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/MoreCollectors.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/collect/ImmutableMultisetGwtSerializationDependencies.java
*
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/graph/StandardNetwork.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/graph/DirectedNetworkConnections.java
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jar/com/google/common/hash/Fingerprint2011.java
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\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/IncidentEdgeSet.java

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\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/base/Joiner.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/net/InetAddresses.java

\*

/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/MultiReader.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/FluentIterable.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/net/PercentEscaper.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/primitives/Doubles.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/primitives/Chars.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-



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jar/com/google/common/primitives/Bytes.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/util/concurrent/SequentialExecutor.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/primitives/Longs.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/primitives/Ints.java
*
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/primitives/Booleans.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/util/concurrent/ListenableFutureTask.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/escape/Escaper.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/primitives/Shorts.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/base/internal/Finalizer.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/io/FileBackedOutputStream.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/thirdparty/publicsuffix/TrieParser.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/base/Stopwatch.java
*
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/base/CharMatcher.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/primitives/Floats.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-
jar/com/google/common/base/Converter.java
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jar/com/google/common/primitives/IntsMethodsForWeb.java

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jar/com/google/common/util/concurrent/TrustedListenableFutureTask.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/eventbus/Subscriber.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/base/MoreObjects.java

\*

/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/util/concurrent/ListenerCallQueue.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/math/Quantiles.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/eventbus/Dispatcher.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/eventbus/SubscriberRegistry.java

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\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ImmutableSortedMultisetFauxverideShim.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/GeneralRange.java  
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/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/Count.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/RegularImmutableSortedMultiset.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/SortedIterable.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/RangeSet.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/AbstractRangeSet.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/SortedIterables.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ImmutableSortedMultiset.java  
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\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/GwtTransient.java

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\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ImmutableBiMapFauxverideShim.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/CollectSpliterators.java

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- \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/OverflowAvoidingLockSupport.java
- \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/math/BigDecimalMath.java
- \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/Java8Compatibility.java

\*

- /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/hash/Java8Compatibility.java

- \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/math/ToDoubleRounder.java

- \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/base/Java8Compatibility.java

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- \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/UnmodifiableListIterator.java

- \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/RowSortedTable.java

\*

- /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/MinMaxPriorityQueue.java

- \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ForwardingImmutableCollection.java

- \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/AbstractSequentialIterator.java

- \* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/SortedMapDifference.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ForwardingSortedSetMultimap.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ForwardingSetMultimap.java  
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\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/ParametricNullness.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/net/ParametricNullness.java  
\*  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/math/ParametricNullness.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/xml/ParametricNullness.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/hash/ParametricNullness.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/cache/ParametricNullness.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/eventbus/ParametricNullness.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/primitives/ParametricNullness.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/html/ElementTypesAreNonnullByDefault.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ElementTypesAreNonnullByDefault.java  
\*

/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/cache/ElementTypesAreNonnullByDefault.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/ElementTypesAreNonnullByDefault.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/escape/ElementTypesAreNonnullByDefault.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/reflect/ElementTypesAreNonnullByDefault.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/hash/ElementTypesAreNonnullByDefault.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/math/ElementTypesAreNonnullByDefault.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/ElementTypesAreNonnullByDefault.java  
\*

/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/xml/ElementTypesAreNonnullByDefault.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/base/ElementTypesAreNonnullByDefault.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/primitives/ElementTypesAreNonnullByDefault.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ParametricNullness.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/eventbus/ElementTypesAreNonnullByDefault.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/net/ElementTypesAreNonnullByDefault.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/base/ParametricNullness.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/reflect/ParametricNullness.java  
\*

/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/ParametricNullness.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/ElementTypesAreNonnullByDefault.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/escape/ParametricNullness.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/ParametricNullness.java

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\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/base/PatternCompiler.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/base/JdkPattern.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/base/CommonMatcher.java  
\*

/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/base/CommonPattern.java

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\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/util/concurrent/ImmediateFuture.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/util/concurrent/FakeTimeLimiter.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/util/concurrent/GwtFuturesCatchingSpecialization.java  
\*

/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/escape/CharEscaperBuilder.java

\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-  
jar/com/google/common/util/concurrent/TimeoutFuture.java



\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/Futures.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/CollectionFuture.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/base/CaseFormat.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/GwtFluentFutureCatchingSpecialization.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/annotations/VisibleForTesting.java

\*  
/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/FuturesGetChecked.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/UncheckedTimeoutException.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/TimeLimiter.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/reflect/TypeToken.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/AbstractCatchingFuture.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/escape/CharEscaper.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/AbstractTransformFuture.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/SimpleTimeLimiter.java

\*  
/opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/FluentFuture.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/AppendableWriter.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/AggregateFuture.java  
\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/PatternFilenameFilter.java

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\* /opt/cola/permits/1301953781\_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/MoreExecutors.java

## 1.66 perfmark-api 0.23.0

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\* /opt/cola/permits/1302049233\_1649313702.49/0/perfmark-api-0-23-0-sources-1-jar/io/perfmark/TaskCloseable.java

\* /opt/cola/permits/1302049233\_1649313702.49/0/perfmark-api-0-23-0-sources-1-jar/io/perfmark/StringFunction.java

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* /opt/cola/permits/1302049233_1649313702.49/0/perfmark-api-0-23-0-sources-1-jar/io/perfmark/package-info.java
* /opt/cola/permits/1302049233_1649313702.49/0/perfmark-api-0-23-0-sources-1-jar/io/perfmark/Link.java
*
* /opt/cola/permits/1302049233_1649313702.49/0/perfmark-api-0-23-0-sources-1-jar/io/perfmark/PerfMark.java
* /opt/cola/permits/1302049233_1649313702.49/0/perfmark-api-0-23-0-sources-1-jar/io/perfmark/Impl.java
```

## 1.67 javapoet 1.13.0

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Found in path(s):

\* /opt/cola/permits/1312156089\_1650477546.68/0/javapoet-1-13-0-sources-1-jar/com/squareup/javapoet/JavaFile.java

\* /opt/cola/permits/1312156089\_1650477546.68/0/javapoet-1-13-0-sources-1-jar/com/squareup/javapoet/AnnotationSpec.java

\* /opt/cola/permits/1312156089\_1650477546.68/0/javapoet-1-13-0-sources-1-

```

jar/com/squareup/javapoet/TypeName.java
*
/opt/cola/permits/1312156089_1650477546.68/0/javapoet-1-13-0-sources-1-
jar/com/squareup/javapoet/CodeWriter.java
* /opt/cola/permits/1312156089_1650477546.68/0/javapoet-1-13-0-sources-1-
jar/com/squareup/javapoet/MethodSpec.java
* /opt/cola/permits/1312156089_1650477546.68/0/javapoet-1-13-0-sources-1-
jar/com/squareup/javapoet/TypeVariableName.java
* /opt/cola/permits/1312156089_1650477546.68/0/javapoet-1-13-0-sources-1-
jar/com/squareup/javapoet/NameAllocator.java
* /opt/cola/permits/1312156089_1650477546.68/0/javapoet-1-13-0-sources-1-
jar/com/squareup/javapoet/FieldSpec.java
* /opt/cola/permits/1312156089_1650477546.68/0/javapoet-1-13-0-sources-1-
jar/com/squareup/javapoet/CodeBlock.java
* /opt/cola/permits/1312156089_1650477546.68/0/javapoet-1-13-0-sources-1-jar/com/squareup/javapoet/Util.java
* /opt/cola/permits/1312156089_1650477546.68/0/javapoet-1-13-0-sources-1-
jar/com/squareup/javapoet/ParameterizedTypeName.java
* /opt/cola/permits/1312156089_1650477546.68/0/javapoet-1-13-0-sources-1-
jar/com/squareup/javapoet/TypeSpec.java
*
/opt/cola/permits/1312156089_1650477546.68/0/javapoet-1-13-0-sources-1-
jar/com/squareup/javapoet/ArrayTypeName.java
* /opt/cola/permits/1312156089_1650477546.68/0/javapoet-1-13-0-sources-1-
jar/com/squareup/javapoet/WildcardTypeName.java
* /opt/cola/permits/1312156089_1650477546.68/0/javapoet-1-13-0-sources-1-
jar/com/squareup/javapoet/ParameterSpec.java

```

# 1.68 guava 31.0.1-android

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```
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/math/Quantiles.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/eventbus/SubscriberRegistry.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/eventbus/Dispatcher.java
*
/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/base/MoreObjects.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/util/concurrent/TrustedListenableFutureTask.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/util/concurrent/ListenerCallQueue.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/eventbus/Subscriber.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/Tables.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/RegularImmutableMap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/ImmutableMapValues.java
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/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/StandardRowSortedTable.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/Collections2.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/Platform.java
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\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ImmutableSortedSet.java  
 \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Table.java  
 \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Range.java  
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 /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/HashBasedTable.java  
 \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Serialization.java  
 \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ImmutableMapKeySet.java  
 \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/RegularImmutableBiMap.java  
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 \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/thirdparty/publicsuffix/PublicSuffixPatterns.java  
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 \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ImmutableListMultimap.java  
 \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/UnmodifiableIterator.java  
 \*  
 /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/EmptyImmutableListMultimap.java  
 \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/CollectPreconditions.java

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jar/com/google/common/hash/ImmutableSupplier.java

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jar/com/google/common/util/concurrent/ExecutionSequencer.java

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jar/com/google/common/io/Java8Compatibility.java

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jar/com/google/common/base/Java8Compatibility.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/math/ToDoubleRounder.java

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/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/OverflowAvoidingLockSupport.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/hash/Java8Compatibility.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/math/BigDecimalMath.java  
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\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/ListeningScheduledExecutorService.java

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\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/cache/RemovalListeners.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/hash/Hashing.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/cache/CacheStats.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/math/MathPreconditions.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/FutureCallback.java

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\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/math/package-info.java

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\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/cache/ForwardingLoadingCache.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/reflect/TypeParameter.java  
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\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/Optional.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/hash/HashFunction.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/cache/RemovalListener.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/math/LongMath.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/ForwardingExecutorService.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/hash/Murmur3\_128HashFunction.java

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\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/Enums.java  
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jar/com/google/common/util/concurrent/AbstractListeningExecutorService.java
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jar/com/google/common/cache/AbstractCache.java
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jar/com/google/common/hash/AbstractStreamingHasher.java
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jar/com/google/common/util/concurrent/Uninterruptibles.java
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```
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/util/concurrent/ForwardingLock.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/primitives/ImmutableDoubleArray.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/primitives/ImmutableIntArray.java
*
 /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/hash/AbstractHashFunction.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/primitives/ImmutableLongArray.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/util/concurrent/ForwardingCondition.java
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 */
/**
 * Holder for web specializations of methods of { @code Shorts}. Intended to be empty for regular
 * version.
```

\*/

Found in path(s):

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/primitives/ShortsMethodsForWeb.java

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\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/BaseImmutableMultimap.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/IndexedImmutableSet.java

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\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-

jar/com/google/common/collect/ForwardingSetMultimap.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/collect/AbstractSequentialIterator.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/collect/SortedMapDifference.java  
\*  
/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/collect/ForwardingSortedSetMultimap.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/collect/RowSortedTable.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/collect/UnmodifiableListIterator.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/collect/ForwardingImmutableCollection.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/collect/ForwardingListMultimap.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/collect/MinMaxPriorityQueue.java  
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\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/graph/IncidentEdgeSet.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/collect/CompactHashing.java  
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\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/Runnables.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/eventbus/SubscriberExceptionContext.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/reflect/TypeVisitor.java  
\*  
/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/hash/HashingInputStream.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/WrappingScheduledExecutorService.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/CharSequenceReader.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/Utf8.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AbstractTable.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/VerifyException.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/thirdparty/publicsuffix/PublicSuffixType.java  
\*  
/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/eventbus/SubscriberExceptionHandler.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/Verify.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/FilteredMultimapValues.java  
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*/
/**
 * Returns an array containing all of the elements in the specified collection. This method
 * returns the elements in the order they are returned by the collection's iterator. The returned
 * array is "safe" in that no references to it are maintained by the collection. The caller is
 * thus free to modify the returned
array.
 *
 * <p>This method assumes that the collection size doesn't change while the method is running.
 *
 * <p>TODO(kevinb): support concurrently modified collections?
 *
 * @param c the collection for which to return an array of elements
 */
```

Found in path(s):

```
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/ObjectArrays.java
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jar/com/google/common/collect/GwtTransient.java
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```
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/base/Strings.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/util/concurrent/ThreadFactoryBuilder.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/util/concurrent/Atomics.java
*
 /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/SortedLists.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/util/concurrent/Monitor.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/base/Ascii.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/util/concurrent/ForwardingBlockingQueue.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/annotations/package-info.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/util/concurrent/ListeningExecutorService.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/ContiguousSet.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/annotations/Beta.java
*
 /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/primitives/package-info.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/base/Equivalence.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/util/concurrent/UncaughtExceptionHandler.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/net/package-info.java
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\* Holder for web specializations of methods of { @code Floats }. Intended to be empty for regular

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\*/

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jar/com/google/common/primitives/FloatsMethodsForWeb.java

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jar/com/google/common/graph/AbstractValueGraph.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/graph/MapRetrievalCache.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-

jar/com/google/common/graph/DirectedNetworkConnections.java  
\*  
/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/graph/ForwardingNetwork.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/collect/HashMultimapGwtSerializationDependencies.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/graph/UndirectedGraphConnections.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/collect/Comparators.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/graph/EdgesConnecting.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/graph/NetworkBuilder.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/graph/StandardMutableValueGraph.java  
\*  
/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/graph/StandardNetwork.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/graph/ForwardingValueGraph.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/graph/ValueGraphBuilder.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/graph/MapIteratorCache.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/graph/StandardMutableGraph.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/graph/NetworkConnections.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/graph/GraphBuilder.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/collect/ArrayListMultimapGwtSerializationDependencies.java  
\*  
/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/graph/AbstractDirectedNetworkConnections.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/collect/LinkedHashMultimapGwtSerializationDependencies.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/graph/StandardValueGraph.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/graph/GraphConstants.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/collect/RangeGwtSerializationDependencies.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/graph/EndpointPairIterator.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/graph/ImmutableValueGraph.java

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*
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jar/com/google/common/graph/EndpointPair.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/graph/GraphConnections.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/graph/UndirectedMultiNetworkConnections.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/graph/ValueGraph.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/graph/ForwardingGraph.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/graph/MultiEdgesConnecting.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/graph/MutableValueGraph.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/graph/UndirectedNetworkConnections.java
*
/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/graph/AbstractGraphBuilder.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/graph/AbstractUndirectedNetworkConnections.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/graph/DirectedMultiNetworkConnections.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/graph/StandardMutableNetwork.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/graph/DirectedGraphConnections.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/graph/AbstractNetwork.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/graph/ElementOrder.java
*
/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/ImmutableMultisetGwtSerializationDependencies.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/graph/AbstractGraph.java

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\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/SortedMultisets.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/SortedMultiset.java  
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- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/CompactLinkedHashSet.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/RangeMap.java
- \*
- /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingDeque.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/RegularImmutableAsList.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/FilteredMultimap.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingImmutableMap.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/FilteredEntrySetMultimap.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/EvictingQueue.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/FilteredEntryMultimap.java
- \*
- /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AbstractSortedKeySortedSetMultimap.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/FilteredKeyListMultimap.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/FilteredSetMultimap.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AbstractNavigableMap.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/UnmodifiableSortedMultiset.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/TransformedIterator.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/TreeRangeMap.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/TreeTraverser.java
- \*
- /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingImmutableSet.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/SortedMultisetBridge.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AllEqualOrdering.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/CompactHashSet.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/ForwardingBlockingDeque.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingNavigableMap.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/CompactHashMap.java  
\*  
/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ImmutableEnumMap.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AbstractMultimap.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingNavigableSet.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingBlockingDeque.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingImmutableList.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/DescendingMultiset.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/FilteredKeySetMultimap.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/CompactLinkedHashMap.java  
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/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/TransformedListIterator.java

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- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/hash/LittleEndianByteArray.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/AggregateFutureState.java
- \*
- /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/hash/MacHashFunction.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/hash/FarmHashFingerprint64.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/Platform.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/ReaderInputStream.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ConsumingQueueIterator.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/InterruptibleTask.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/CombinedFuture.java

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- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/cache/LongAdder.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/AtomicDoubleArray.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/cache/Striped64.java

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jar/com/google/common/reflect/Reflection.java

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jar/com/google/common/eventbus/Subscribe.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/io/MultiInputStream.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/base/Objects.java

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/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/base/FinalizableSoftReference.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/io/LineReader.java

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jar/com/google/common/base/Charsets.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/base/FinalizableWeakReference.java

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jar/com/google/common/io/LineBuffer.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/base/Predicate.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/util/concurrent/ExecutionList.java  
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jar/com/google/common/io/ByteStreams.java  
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jar/com/google/common/base/Function.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/io/Files.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/eventbus/AsyncEventBus.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/base/AbstractIterator.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/eventbus/DeadEvent.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/eventbus/package-info.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/base/FinalizablePhantomReference.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/base/FinalizableReferenceQueue.java  
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/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/collect/Interners.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/base/Predicates.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/io/CountingInputStream.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/io/CharStreams.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/base/Suppliers.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/util/concurrent/ListenableFuture.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/base/Supplier.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/primitives/Primitives.java  
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/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/util/concurrent/AbstractFuture.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/eventbus/EventBus.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/io/CountingOutputStream.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/Closeables.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/Defaults.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/Flushables.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/Throwables.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/HashBiMap.java  
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/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/eventbus/AllowConcurrentEvents.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/LittleEndianDataInputStream.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/Functions.java  
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\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/FinalizableReference.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/package-info.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/EnumMultiset.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/package-info.java  
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/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/package-info.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/Preconditions.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/LittleEndianDataOutputStream.java  
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\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/SuccessorsFunction.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/MutableGraph.java  
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/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/Network.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/PredecessorsFunction.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/Graphs.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/TopKSelector.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/MutableNetwork.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/ImmutableGraph.java  
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jar/com/google/common/collect/MultimapBuilder.java

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 */
```

Found in path(s):

```
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/graph/package-info.java
```

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 *
 * As of 2010/06/11, this method is identical to the (package private) hash method in OpenJDK 7's
 * java.util.HashMap
 * class.
 */
```

Found in path(s):

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/Striped.java

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/\*\*

\* Not supported. <b>You are attempting to create a map that may contain a non-{@code Comparable}

\* key.</b> Proper calls will resolve to the version in {@code ImmutableSortedMap}, not this dummy

\* version.

\*

\* @throws UnsupportedOperationException always

\* @deprecated <b>Pass a key of type {@code Comparable}

to use {@link

\* `ImmutableSortedMap#of(Comparable, Object)}`.</b>

\*/

Found in path(s):

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ImmutableSortedMapFauxverideShim.java

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Found in path(s):

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/primitives/Platform.java

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\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/html/package-info.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/BaseEncoding.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/ByteSink.java

\*

/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/StandardSystemProperty.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/reflect/ImmutableTypeToInstanceMap.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/CartesianList.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/ServiceManager.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ImmutableRangeMap.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/math/PairedStatsAccumulator.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/hash/AbstractByteHasher.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/Closer.java

\*



/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/math/PairedStats.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/hash/SipHashFunction.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/hash/LongAddable.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/xml/package-info.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/reflect/ClassPath.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/CharSink.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/reflect/package-info.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/hash/ChecksumHashFunction.java  
\*  
/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/reflect/TypeCapture.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/escape/package-info.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/FilteredKeyMultimap.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/FileWriteMode.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/reflect/Invokable.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ImmutableRangeSet.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/cache/LongAddable.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/CharSource.java  
\*  
/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/reflect/MutableTypeToInstanceMap.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/reflect/TypeToInstanceMap.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/math/LinearTransformation.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/ListenableScheduledFuture.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/SmoothRateLimiter.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/RateLimiter.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/hash/LongAddables.java

```
*
/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/io/ByteSource.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/math/StatsAccumulator.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/math/Stats.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/cache/LongAddables.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/reflect/Parameter.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/reflect/AbstractInvocationHandler.java
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```
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/ObjectCountLinkedHashMap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/util/concurrent/ClosingFuture.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/graph/AbstractBaseGraph.java
*
/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/graph/Traverser.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/graph/BaseGraph.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/ObjectCountHashMap.java
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jar/com/google/common/util/concurrent/MoreExecutors.java

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\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/primitives/Floats.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/SequentialExecutor.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/primitives/Shorts.java

\*

/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/primitives/Ints.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/net/InetAddresses.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/primitives/Longs.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/MultiReader.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/escape/UnicodeEscaper.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/primitives/Doubles.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/ListenableFutureTask.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/primitives/Chars.java

\*

/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/net/PercentEscaper.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/internal/Finalizer.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/CharMatcher.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/thirdparty/publicsuffix/TrieParser.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/Joiner.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/escape/Escaper.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/Converter.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/primitives/Booleans.java

\*

/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/Stopwatch.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/FluentIterable.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/primitives/Bytes.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/FileBackedOutputStream.java

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Found in path(s):

```
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/ImmutableSortedMap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/ArrayTable.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/ImmutableSetMultimap.java
*
/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/RegularImmutableSortedSet.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/ImmutableTable.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/ComputationException.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/AbstractIndexedListIterator.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/EmptyImmutableSetMultimap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/ImmutableClassToInstanceMap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/ImmutableEnumSet.java
*
/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/ComparisonChain.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/ImmutableAsList.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/SingletonImmutableTable.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
```

jar/com/google/common/collect/RegularImmutableList.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/collect/DiscreteDomain.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/collect/ImmutableSortedSetFauxverideShim.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/collect/ForwardingTable.java  
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 */
/**
 * Outer class that exists solely to let us write {@code Partially.GwtIncompatible} instead of plain
 * {@code GwtIncompatible}. This is more accurate for {@link Futures#catching}, which is available
 * under GWT but with a slightly different signature.
 *
 * <p>We can't use {@code PartiallyGwtIncompatible} because then the GWT compiler
 * wouldn't recognize
 * it as a {@code GwtIncompatible} annotation. And for {@code Futures.catching}, we need the GWT
 * compiler to autostrip the normal server method in order to expose the special, inherited GWT
 * version.
 */
```

Found in path(s):  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/util/concurrent/Partially.java  
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- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingMapEntry.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ExplicitOrdering.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Multiset.java
- \*
- /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/LexicographicalOrdering.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AbstractIterator.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AbstractSortedSetMultimap.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/UsingToStringOrdering.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/RegularImmutableSet.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingObject.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingQueue.java
- \*
- /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/EnumBiMap.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/EnumHashBiMap.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ConcurrentHashMultiset.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/NullsFirstOrdering.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ImmutableList.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/HashMultiset.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Multimap.java
- \* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/CompoundOrdering.java
- \*

/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AbstractSetMultimap.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AbstractMapBasedMultiset.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ByFunctionOrdering.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/SortedSetMultimap.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingList.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingMap.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/HashMultimap.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingSet.java  
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/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AbstractMapEntry.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/package-info.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AbstractMultiset.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Lists.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingListIterator.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/LinkedListMultimap.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/NaturalOrdering.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingMultiset.java  
\*  
/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AbstractBiMap.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/LinkedHashMultimap.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingMultimap.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ReverseNaturalOrdering.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AbstractListMultimap.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingSortedMap.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/SetMultimap.java



\*  
/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Multisets.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/SingletonImmutableSet.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/MutableClassToInstanceMap.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/MapDifference.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/NullsLastOrdering.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Ordering.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ImmutableSet.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/TreeMultiset.java  
\*  
/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Sets.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingCollection.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Synchronized.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ListMultimap.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ReverseOrdering.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AbstractMapBasedMultimap.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Multimaps.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ArrayListMultimap.java  
\*  
/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingSortedSet.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingConcurrentMap.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/TreeMultimap.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingIterator.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ClassToInstanceMap.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Iterators.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-

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jar/com/google/common/collect/Maps.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/ComparatorOrdering.java
*
/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/LinkedHashMultiset.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/Interner.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/BiMap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/Iterables.java
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```
Found in path(s):
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/util/concurrent/ServiceManagerBridge.java
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```

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Found in path(s):

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/hash/package-info.java

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\* This method was rewritten in Java from an intermediate step of the Murmur hash function in

\* <http://code.google.com/p/smhasher/source/browse/trunk/MurmurHash3.cpp>, which contained the

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\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Hashing.java

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Found in path(s):

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/PatternCompiler.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/CommonPattern.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/JdkPattern.java

\*

/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/CommonMatcher.java

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\* <http://code.google.com/p/smhasher/source/browse/trunk/MurmurHash3.cpp>, which contained the  
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\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/SmallCharMatcher.java

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\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/escape/ArrayBasedUnicodeEscaper.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/collect/MapMakerInternalMap.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/util/concurrent/AbstractExecutionThreadService.java  
\*  
/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/net/HostSpecifier.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/reflect/TypeResolver.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/base/Platform.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/annotations/GwtIncompatible.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/annotations/GwtCompatible.java  
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jar/com/google/common/util/concurrent/AbstractIdleService.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/cache/ReferenceEntry.java  
\*  
/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
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\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/util/concurrent/ForwardingFuture.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/escape/ArrayBasedCharEscaper.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/io/ByteProcessor.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/html/HtmlEscapers.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-  
jar/com/google/common/net/UrlEscapers.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-

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jar/com/google/common/collect/Cut.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/util/concurrent/Callables.java
*
/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/net/InternetDomainName.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/io/ByteArrayDataInput.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/escape/ArrayBasedEscaperMap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/MapMaker.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/util/concurrent/ForwardingListenableFuture.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/DenseImmutableTable.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/cache/CacheBuilder.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
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jar/com/google/common/escape/Platform.java
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jar/com/google/common/util/concurrent/AbstractService.java
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jar/com/google/common/cache/LocalCache.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/xml/XmlEscapers.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/SparseImmutableTable.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/base/Splitter.java

```

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/primitives/SignedBytes.java

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Found in path(s):

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/FuturesGetChecked.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/TimeoutFuture.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/FluentFuture.java

\*

/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/escape/CharEscaper.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/UncheckedTimeoutException.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/GwtFuturesCatchingSpecialization.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/AbstractTransformFuture.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/SimpleTimeLimiter.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/PatternFilenameFilter.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/CollectionFuture.java

\*

/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/ImmediateFuture.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/reflect/TypeToken.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/annotations/VisibleForTesting.java

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/Futures.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/AbstractCatchingFuture.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/CaseFormat.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/AppendableWriter.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/GwtFluentFutureCatchingSpecialization.java  
\*

/opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/TimeLimiter.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/FakeTimeLimiter.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/escape/CharEscaperBuilder.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/AggregateFuture.java

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Found in path(s):

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/NullnessCasts.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/NullnessCasts.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/NullnessCasts.java

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express
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* the License.
*/
/**
* Holder for web specializations of methods of { @code Doubles}. Intended to be empty for regular
* version.
*/

```

Found in path(s):

```

* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/primitives/DoublesMethodsForWeb.java

```

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*/

```

Found in path(s):

```

* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/base/ParametricNullness.java

```

```

* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/hash/ParametricNullness.java

```

```

* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/math/ParametricNullness.java

```

```

*
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/net/ElementTypesAreNonnullByDefault.java

```

```

* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-

```

```

jar/com/google/common/html/ElementTypesAreNonnullByDefault.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/primitives/ParametricNullness.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/cache/ParametricNullness.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/eventbus/ElementTypesAreNonnullByDefault.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/reflect/ParametricNullness.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/escape/ParametricNullness.java
*
/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/hash/ElementTypesAreNonnullByDefault.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/escape/ElementTypesAreNonnullByDefault.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/xml/ParametricNullness.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/html/ParametricNullness.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/net/ParametricNullness.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/xml/ElementTypesAreNonnullByDefault.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/math/ElementTypesAreNonnullByDefault.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/ParametricNullness.java
*
/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/io/ParametricNullness.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/primitives/ElementTypesAreNonnullByDefault.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/graph/ElementTypesAreNonnullByDefault.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/util/concurrent/ParametricNullness.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/eventbus/ParametricNullness.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/util/concurrent/ElementTypesAreNonnullByDefault.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/graph/ParametricNullness.java
*
/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/reflect/ElementTypesAreNonnullByDefault.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/ElementTypesAreNonnullByDefault.java

```

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/ElementTypesAreNonnullByDefault.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/ElementTypesAreNonnullByDefault.java  
\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/cache/ElementTypesAreNonnullByDefault.java  
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\*/

/\*\*

\* Holder for web specializations of methods of { @code Ints }. Intended to be empty for regular  
\* version.

\*/

Found in path(s):

\* /opt/cola/permits/1312950193\_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/primitives/IntsMethodsForWeb.java

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Found in path(s):

```

* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/SortedIterables.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/ImmutableSortedMultiset.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/Count.java
*
/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/RangeSet.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/ForwardingSortedMultiset.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/ImmutableSortedMultisetFauxverideShim.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/GeneralRange.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/SortedIterable.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/RegularImmutableSortedMultiset.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-
jar/com/google/common/collect/AbstractRangeSet.java

```

## 1.69 proto-google-common-protos 2.7.4

### 1.69.1 Available under license :

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```

Found in path(s):

```

* /opt/cola/permits/1319211721_1651231546.54/0/proto-google-common-protos-2-7-4-
jar/google/api/launch_stage.proto

```

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```

Found in path(s):

```

* /opt/cola/permits/1319211721_1651231546.54/0/proto-google-common-protos-2-7-4-

```

jar/google/api/visibility.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/geo/type/viewport.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/api/consumer.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/api/system\_parameter.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/api/distribution.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/type/dayofweek.proto  
\*  
/opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-jar/google/api/resource.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-jar/google/rpc/status.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-jar/google/type/color.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-jar/google/api/usage.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/type/timeofday.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/api/endpoint.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/cloud/extended\_operations.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-jar/google/type/date.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/api/source\_info.proto  
\*  
/opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-jar/google/api/logging.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-jar/google/api/log.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-jar/google/type/money.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-jar/google/api/label.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-jar/google/type/month.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/api/annotations.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-jar/google/rpc/code.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-jar/google/api/client.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-jar/google/api/billing.proto  
\*  
/opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/rpc/context/attribute\_context.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/logging/type/log\_severity.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-jar/google/api/control.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/api/httpbody.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-jar/google/type/latlng.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/type/postal\_address.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-

jar/google/cloud/audit/audit\_log.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/api/backend.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-jar/google/api/http.proto  
\*  
/opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-jar/google/type/interval.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/type/decimal.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/api/error\_reason.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-jar/google/type/expr.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/type/quaternion.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/longrunning/operations.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/type/fraction.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/api/monitored\_resource.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-jar/google/api/metric.proto  
\*  
/opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/api/field\_behavior.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/logging/type/http\_request.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/api/documentation.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/rpc/error\_details.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-jar/google/api/quota.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/type/localized\_text.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/type/calendar\_period.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-jar/google/api/auth.proto  
\*  
/opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/type/phone\_number.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/api/config\_change.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-jar/google/api/context.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-jar/google/api/service.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/api/monitoring.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-jar/google/api/routing.proto  
\* /opt/cola/permits/1319211721\_1651231546.54/0/proto-google-common-protos-2-7-4-  
jar/google/type/datetime.proto

# 1.70 ion-java 1.0.2

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* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-
jar/com/google/gson/internal/GsonBuildConfig.java
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```
* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-
jar/com/google/gson/internal/bind/TreeTypeAdapter.java
```

```
* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-
```

jar/com/google/gson/internal/bind/DateTypeAdapter.java  
\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/internal/ConstructorConstructor.java  
\*  
/opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/internal/sql/SqlDateTypeAdapter.java  
\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/internal/UnsafeAllocator.java  
\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/internal/sql/SqlTimeTypeAdapter.java  
\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/internal/LazilyParsedNumber.java  
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jar/com/google/gson/internal/bind/ArrayTypeAdapter.java  
\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/internal/bind/JsonTreeReader.java  
\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/internal/bind/TypeAdapterRuntimeTypeWrapper.java  
\*  
/opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/internal/bind/CollectionTypeAdapterFactory.java  
\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/internal/bind/MapTypeAdapterFactory.java  
\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/TypeAdapterFactory.java  
\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/internal/JsonReaderInternalAccess.java  
\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/internal/bind/ReflectiveTypeAdapterFactory.java

\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/internal/bind/TypeAdapters.java  
\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/internal/bind/ObjectTypeAdapter.java  
\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/TypeAdapter.java  
\*

/opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/internal/bind/JsonTreeWriter.java

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\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/JsonObject.java

\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/JsonArray.java

\*

/opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/FieldNamingStrategy.java

\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/annotations/SerializedName.java

\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/JsonDeserializationContext.java

\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/internal/Excluder.java

\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/FieldNamingPolicy.java

\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/internal/\$Gson\$Preconditions.java

\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/internal/bind/DefaultDateTypeAdapter.java

\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-

jar/com/google/gson/JsonSerializationContext.java  
\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/JsonParseException.java  
\*  
/opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/internal/ObjectConstructor.java  
\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/Gson.java  
\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/JsonIOException.java  
\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/reflect/TypeToken.java  
\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/JsonDeserializer.java  
\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/annotations/Expose.java  
\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/internal/Primitives.java  
\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/GsonBuilder.java  
\*  
/opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/JsonSerializer.java  
\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/annotations/Since.java  
\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/JsonPrimitive.java  
\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/ExclusionStrategy.java  
\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/annotations/Until.java  
\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/InstanceCreator.java  
\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/JsonNull.java  
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\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/stream/MalformedJsonException.java

\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/stream/JsonScope.java

\*

/opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/stream/JsonToken.java

\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/stream/JsonWriter.java

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\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/internal/reflect/ReflectionAccessor.java

\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/internal/reflect/UnsafeReflectionAccessor.java

\*

/opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/internal/PreJava9DateFormatProvider.java

\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/internal/JavaVersion.java

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Found in path(s):

\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/ToNumberPolicy.java  
\* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-  
jar/com/google/gson/ToNumberStrategy.java  
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```

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```
*/opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-
jar/com/google/gson/JsonSyntaxException.java
*/opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-
jar/com/google/gson/internal/Streams.java
```

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```
*/opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-
jar/com/google/gson/internal/$Gson$Types.java
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- \* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/JsonStreamParser.java
- \* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/LongSerializationPolicy.java
- \* /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/FieldAttributes.java
- \*
- /opt/cola/permits/1330613678\_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/JsonParser.java

## 1.72 zstd-jni 1.5.2-1

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Manifest-Version: 1.0

Automatic-Module-Name: com.github.luben.zstd\_jni

Bnd-LastModified: 1642851452470

Bundle-Description: JNI bindings for Zstd native library that provides fast and high compression lossless algorithm for Java and all JVM languages.

Bundle-License: <https://opensource.org/licenses/BSD-2-Clause>;description=BSD 2-Clause License

Bundle-ManifestVersion: 2

Bundle-Name: zstd-jni

Bundle-NativeCode: darwin/x86\_64/libzstd-jni-1.5.2-1.dylib;osname=MacOSS;osname=MacOSX;processor=x86\_64, darwin/aarch64/libzstd-jni-1.5.2-1.dylib;osname=MacOS;osname=MacOSX;processor=aarch64, freebsd/amd64/libzstd-jni-1.5.2-1.so;osname=FreeBSD;processor=amd64, freebsd/i386/libzstd-jni-1.5.2-1.so;osname=FreeBSD;processor=i386, linux/aarch64/libzstd-jni-1.5.2-1.so;osname=Linux;processor=aarch64, linux/amd64/libzstd-jni-1.5.2-1.so;osname=Linux;processor=amd64, linux/arm/libzstd-jni-1.5.2-1.so;osname=Linux;processor=arm, linux/i386/libzstd-jni-1.5.2-1.so;osname=Linux;processor=i386, linux/mips64/libzstd-jni-1.5.2-1.so;osname=Linux;processor=mips64, linux/ppc64/libzstd-jni-1.5.2-1.so;osname=Linux;processor=ppc64, linux/ppc64le/libzstd-jni-1.5.2-1.so;osname=Linux;processor=ppc64le, linux/s390x/libzstd-jni-1.5.2-1.so;osname=Linux;processor=s390x, win/amd64/libzstd-jni-1.5.2-1.dll;osname=Win32;processor=amd64, win/x86/libzstd-jni-1.5.2-1.dll;osname=Win32;processor=x86

Bundle-SymbolicName: com.github.luben.zstd-jni  
Bundle-Vendor: com.github.luben  
Bundle-Version: 1.5.2.1  
Created-By: 11.0.14 (Debian)  
Export-Package: com.github.luben.zstd;version="1.5.2.1",com.github.luben.zstd.util;version="1.5.2.1"  
Implementation-Title: zstd-jni  
Implementation-Vendor: com.github.luben  
Implementation-Vendor-Id: com.github.luben  
Implementation-Version: 1.5.2-1  
Import-Package: org.osgi.framework;resolution:=optional  
Private-Package: linux.amd64,linux.i386,linux.aarch64,linux.arm,linux.ppc64,linux.ppc64le,linux.mips64,linux.s390x,darwin.x86\_64,darwin.arm64,win.amd64,win.x86,freebsd.amd64,freebsd.i386  
Require-Capability: osgi.ee;filter="(&(osgi.ee=JavaSE)(version=11.0))"  
"  
Specification-Title: zstd-jni  
Specification-Vendor: com.github.luben  
Specification-Version: 1.5.2-1  
Tool: Bnd-4.0.0.201805111645

Found in path(s):

\* /opt/cola/permits/1337889408\_1654234488.39181/0/zstd-jni-1-5-2-1-jar/META-INF/MANIFEST.MF

## 1.73 okhttp 4.10.0

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## 1.74 everit-json-schema 1.14.1

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\* /opt/cola/permits/1347861461\_1655734144.0687535/0/everit-json-schema-1-14-1-sources-jar/org/everit/json/schema/JSONPointerException.java

\* /opt/cola/permits/1347861461\_1655734144.0687535/0/everit-json-schema-1-14-1-sources-jar/org/everit/json/schema/JSONPointerException.java

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\* /opt/cola/permits/1347861461\_1655734144.0687535/0/everit-json-schema-1-14-1-sources-jar/META-INF/maven/com.github.erosb/everit-json-schema/pom.xml

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## 1.75 reactive-streams 1.0.4

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## 1.76 avro 1.11.1

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 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/style/StyleResolver.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/style/StyledWriter.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jansi/solaris/SolarisNativePty.java  
 \*  
 /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/style/MemoryStyleSource.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/PumpReader.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/impl/SimpleMaskingCallback.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/ssh/ShellCommand.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jansi/osx/OsXNativePty.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/style/StyleColor.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/telnet/Telnet.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jansi/freebsd/FreeBsdNativePty.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jansi/linux/LinuxNativePty.java  
 \*  
 /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jna/win/JnaWinConsoleWriter.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/NonBlockingPumpReader.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/style/NopStyleSource.java  
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```

Found in path(s):

```

* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/builtins/telnet/ConnectionManager.java
*
  /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/builtins/telnet/ConnectionEvent.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/builtins/telnet/TelnetIO.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/builtins/telnet/Connection.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-

```



jar/org/jline/builtins/telnet/ConnectionData.java  
\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
jar/org/jline/builtins/telnet/PortListener.java  
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```
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/InputRC.java  
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/ParsedLine.java  
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/History.java  
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-  
jar/org/jline/terminal/impl/PosixSysTerminal.java  
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-  
jar/org/jline/reader/CompletingParsedLine.java  
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/Utils/NonBlocking.java  
*  
/opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-  
jar/org/jline/Utils/NonBlockingReader.java  
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-  
jar/org/jline/Style/StyleExpression.java  
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-  
jar/org/jline/reader/impl/KillRing.java  
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/Utils/StyleResolver.java  
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/Size.java  
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/Completer.java  
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-  
jar/org/jline/reader/impl/completer/FileNameCompleter.java  
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-  
jar/org/jline/terminal/impl/PosixPtyTerminal.java  
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/Utils/Colors.java  
*  
/opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-  
jar/org/jline/Utils/AttributedStringBuilder.java  
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/Style/Styler.java  
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/Terminal.java  
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/Utils/Curses.java  
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-  
jar/org/jline/terminal/impl/LineDisciplineTerminal.java  
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/Style/StyleFactory.java  
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
```

```
jar/org/jline/terminal/impl/ExternalTerminal.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/terminal/impl/DumbTerminal.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/NfaMatcher.java
*
/opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/utils/NonBlockingInputStream.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/utils/NonBlockingReaderImpl.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/terminal/impl/jna/win/Kernel32.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/keymap/BindingReader.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/reader/MaskingCallback.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/style/StyleSource.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/utils/NonBlockingInputStreamImpl.java
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```

```
auto_left_margin, bw, bw
auto_right_margin, am, am
back_color_erase, bce, ut
can_change, ccc, cc
ceol_standout_glitch, xhp, xs
col_addr_glitch, xhpa, YA
cpi_changes_res, cpix, YF
cr_cancels_micro_mode, crxm, YB
dest_tabs_magic_sms0, xt, xt
eat_newline_glitch, xenl, xn
erase_overstrike, eo, eo
generic_type, gn, gn
hard_copy, hc, hc
hard_cursor, chts, HC
has_meta_key, km, km
has_print_wheel, daisy, YC
has_status_line, hs, hs
hue_lightness_saturation, hls, hl
insert_null_glitch, in, in
```

lpi\_changes\_res, lpix, YG  
memory\_above, da, da  
memory\_below, db, db  
move\_insert\_mode, mir, mi  
move\_standout\_mode, msgr, ms  
needs\_xon\_xoff, nxon, nx  
no\_esc\_ctlc, xsb, xb  
no\_pad\_char, npc,  
NP  
non\_dest\_scroll\_region, ndscr, ND  
non\_rev\_rmcup, nrrmc, NR  
over\_strike, os, os  
prtr\_silent, mc5i, 5i  
row\_addr\_glitch, xvpa, YD  
semi\_auto\_right\_margin, sam, YE  
status\_line\_esc\_ok, eslok, es  
tilde\_glitch, hz, hz  
transparent\_underline, ul, ul  
xon\_xoff, xon, xo  
columns, cols, co  
init\_tabs, it, it  
label\_height, lh, lh  
label\_width, lw, lw  
lines, lines, li  
lines\_of\_memory, lm, lm  
magic\_cookie\_glitch, xmc, sg  
max\_attributes, ma, ma  
max\_colors, colors, Co  
max\_pairs, pairs, pa  
maximum\_windows, wnum, MW  
no\_color\_video, ncv, NC  
num\_labels, nlab, Nl  
padding\_baud\_rate, pb, pb  
virtual\_terminal, vt, vt  
width\_status\_line, wsl, ws  
bit\_image\_entwining, bitwin, Yo  
bit\_image\_type, bitype, Yp  
buffer\_capacity, bufisz, Ya  
buttons, btns, BT  
dot\_horz\_spacing, spinh, Yc  
dot\_vert\_spacing, spinv, Yb  
max\_micro\_address, maddr, Yd  
max\_micro\_jump, mjump, Ye  
micro\_col\_size, mcs, Yf  
micro\_line\_size, mls, Yg  
number\_of\_pins, npins, Yh  
output\_res\_char, orc, Yi  
output\_res\_horz\_inch, orhi, Yk

output\_res\_line, orl, Yj  
output\_res\_vert\_inch,  
orvi, Yl  
print\_rate, cps, Ym  
wide\_char\_size, widcs, Yn  
acs\_chars, acsc, ac  
back\_tab, cbt, bt  
bell, bel, bl  
carriage\_return, cr, cr  
change\_char\_pitch, cpi, ZA  
change\_line\_pitch, lpi, ZB  
change\_res\_horz, chr, ZC  
change\_res\_vert, cvr, ZD  
change\_scroll\_region, csr, cs  
char\_padding, rmp, rP  
clear\_all\_tabs, tbc, ct  
clear\_margins, mgc, MC  
clear\_screen, clear, cl  
clr\_bol, e1l, cb  
clr\_eol, el, ce  
clr\_eos, ed, cd  
column\_address, hpa, ch  
command\_character, cmdch, CC  
create\_window, cwin, CW  
cursor\_address, cup, cm  
cursor\_down, cud1, do  
cursor\_home, home, ho  
cursor\_invisible, civis, vi  
cursor\_left, cub1, le  
cursor\_mem\_address, mrcup, CM  
cursor\_normal, cnorm, ve  
cursor\_right, cuf1, nd  
cursor\_to\_ll, ll, ll  
cursor\_up, cuu1, up  
cursor\_visible, cvvis, vs  
define\_char, defc, ZE  
delete\_character, dch1, dc  
delete\_line, dl1, dl  
dial\_phone, dial, DI  
dis\_status\_line, dsl, ds  
display\_clock, dclk, DK  
down\_half\_line, hd, hd  
ena\_acs, enacs, eA  
enter\_alt\_charset\_mode, smacs, as  
enter\_am\_mode, smam,  
SA  
enter\_blink\_mode, blink, mb  
enter\_bold\_mode, bold, md

enter\_ca\_mode, smcup, ti  
enter\_delete\_mode, smdc, dm  
enter\_dim\_mode, dim, mh  
enter\_doublewide\_mode, swidm, ZF  
enter\_draft\_quality, sdrfq, ZG  
enter\_insert\_mode, smir, im  
enter\_italics\_mode, sitm, ZH  
enter\_leftward\_mode, slm, ZI  
enter\_micro\_mode, smicm, ZJ  
enter\_near\_letter\_quality, snlq, ZK  
enter\_normal\_quality, snrmq, ZL  
enter\_protected\_mode, prot, mp  
enter\_reverse\_mode, rev, mr  
enter\_secure\_mode, invis, mk  
enter\_shadow\_mode, sshm, ZM  
enter\_standout\_mode, smso, so  
enter\_subscript\_mode, ssubm, ZN  
enter\_superscript\_mode, ssupm, ZO  
enter\_underline\_mode, smul, us  
enter\_upward\_mode, sum, ZP  
enter\_xon\_mode, smxon, SX  
erase\_chars, ech, ec  
exit\_alt\_charset\_mode, rmacs, ae  
exit\_am\_mode, rmam, RA  
exit\_attribute\_mode, sgr0, me  
exit\_ca\_mode, rmcup, te  
exit\_delete\_mode, rmdc, ed  
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exit\_italics\_mode, ritm, ZR  
exit\_leftward\_mode, rlm, ZS  
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ZU  
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exit\_subscript\_mode, rsubm, ZV  
exit\_superscript\_mode, rsupm, ZW  
exit\_underline\_mode, rmul, ue  
exit\_upward\_mode, rum, ZX  
exit\_xon\_mode, rmxon, RX  
fixed\_pause, pause, PA  
flash\_hook, hook, fh  
flash\_screen, flash, vb  
form\_feed, ff, ff  
from\_status\_line, fsl, fs  
goto\_window, wingo, WG  
hangup, hup, HU  
init\_lstring, is1, i1

init\_2string, is2, is  
init\_3string, is3, i3  
init\_file, if, if  
init\_prog, iprog, iP  
initialize\_color, initc, Ic  
initialize\_pair, initp, Ip  
insert\_character, ich1, ic  
insert\_line, ill, al  
insert\_padding, ip, ip  
key\_a1, ka1, K1  
key\_a3, ka3, K3  
key\_b2, kb2, K2  
key\_backspace, kbs, kb  
key\_beg, kbeg, @1  
key\_btab, kcbt, kB  
key\_c1, kc1, K4  
key\_c3, kc3, K5  
key\_cancel, kcan, @2  
key\_catab, ktbc, ka  
key\_clear, kclr, kC  
key\_close, kclo, @3  
key\_command, kcmd, @4  
key\_copy, kcpy, @5  
key\_create, kcrt, @6  
key\_ctab, kctab, kt  
key\_dc, kdch1, kD  
key\_dl, kdl1, kL  
key\_down, kcud1, kd  
key\_eic, krmir, kM  
key\_end, kend, @7  
key\_enter, kent, @8  
key\_eol, kel, kE  
key\_eos,  
ked, kS  
key\_exit, kext, @9  
key\_f0, kf0, k0  
key\_f1, kf1, k1  
key\_f10, kf10, k;  
key\_f11, kf11, F1  
key\_f12, kf12, F2  
key\_f13, kf13, F3  
key\_f14, kf14, F4  
key\_f15, kf15, F5  
key\_f16, kf16, F6  
key\_f17, kf17, F7  
key\_f18, kf18, F8  
key\_f19, kf19, F9  
key\_f2, kf2, k2

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key\_f23, kf23, FD  
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key\_f26, kf26, FG  
key\_f27, kf27, FH  
key\_f28, kf28, FI  
key\_f29, kf29, FJ  
key\_f3, kf3, k3  
key\_f30, kf30, FK  
key\_f31, kf31, FL  
key\_f32, kf32, FM  
key\_f33, kf33, FN  
key\_f34, kf34, FO  
key\_f35, kf35, FP  
key\_f36, kf36, FQ  
key\_f37, kf37, FR  
key\_f38, kf38, FS  
key\_f39, kf39, FT  
key\_f4, kf4, k4  
key\_f40, kf40, FU  
key\_f41, kf41, FV  
key\_f42, kf42, FW  
key\_f43, kf43, FX  
key\_f44, kf44, FY  
key\_f45, kf45, FZ  
key\_f46, kf46, Fa  
key\_f47, kf47, Fb  
key\_f48, kf48, Fc  
key\_f49, kf49, Fd  
key\_f5, kf5, k5  
key\_f50, kf50, Fe  
key\_f51, kf51, Ff  
key\_f52, kf52, Fg  
key\_f53, kf53, Fh  
key\_f54, kf54, Fi  
key\_f55, kf55, Fj  
key\_f56, kf56, Fk  
key\_f57, kf57, Fl  
key\_f58, kf58,  
Fm  
key\_f59, kf59, Fn  
key\_f6, kf6, k6  
key\_f60, kf60, Fo  
key\_f61, kf61, Fp  
key\_f62, kf62, Fq

key\_f63, kf63, Fr  
key\_f7, kf7, k7  
key\_f8, kf8, k8  
key\_f9, kf9, k9  
key\_find, kfnd, @0  
key\_help, khlp, %1  
key\_home, khome, kh  
key\_ic, kich1, kI  
key\_il, kil1, kA  
key\_left, kcub1, kI  
key\_ll, kll, kH  
key\_mark, kmrk, %2  
key\_message, kmsg, %3  
key\_move, kmov, %4  
key\_next, knxt, %5  
key\_npage, knp, kN  
key\_open, kopn, %6  
key\_options, kopt, %7  
key\_ppage, kpp, kP  
key\_previous, kprv, %8  
key\_print, kpri, %9  
key\_redo, krdo, %0  
key\_reference, kref, &1  
key\_refresh, krfr, &2  
key\_replace, krpl, &3  
key\_restart, krst, &4  
key\_resume, kres, &5  
key\_right, kcuf1, kr  
key\_save, ksav, &6  
key\_sbeg, kBEG, &9  
key\_scancel, kCAN, &0  
key\_scommand, kCMD, \*1  
key\_scopy, kCPY, \*2  
key\_screate, kCRT, \*3  
key\_sdc, kDC, \*4  
key\_sdl, kDL, \*5  
key\_select, kslt, \*6  
key\_send, kEND, \*7  
key\_seol, kEOL, \*8  
key\_sexit, kEXT, \*9  
key\_sf, kind, kF  
key\_sfind, kFND, \*0  
key\_shelp, kHLP, #1  
key\_shome, kHOM, #2  
key\_sic, kIC, #3  
key\_sleft, kLFT, #4  
key\_smessage,



kMSG, %a  
key\_smove, kMOV, %b  
key\_snext, kNXT, %c  
key\_soptions, kOPT, %d  
key\_sprevious, kPRV, %e  
key\_sprint, kPRT, %f  
key\_sr, kri, kR  
key\_sredo, kRDO, %g  
key\_sreplace, kRPL, %h  
key\_sright, kRIT, %i  
key\_sresume, kRES, %j  
key\_ssave, kSAV, !1  
key\_ssuspend, kSPD, !2  
key\_stab, khts, kT  
key\_sundo, kUND, !3  
key\_suspend, kspd, &7  
key\_undo, kund, &8  
key\_up, kcuu1, ku  
keypad\_local, rmkx, ke  
keypad\_xmit, smkx, ks  
lab\_f0, lf0, l0  
lab\_f1, lf1, l1  
lab\_f10, lf10, la  
lab\_f2, lf2, l2  
lab\_f3, lf3, l3  
lab\_f4, lf4, l4  
lab\_f5, lf5, l5  
lab\_f6, lf6, l6  
lab\_f7, lf7, l7  
lab\_f8, lf8, l8  
lab\_f9, lf9, l9  
label\_format, fln, Lf  
label\_off, rmln, LF  
label\_on, smln, LO  
meta\_off, rmm, mo  
meta\_on, smm, mm  
micro\_column\_address, mhpa, ZY  
micro\_down, mcud1, ZZ  
micro\_left, mcub1, Za  
micro\_right, mcuf1, Zb  
micro\_row\_address, mvpa, Zc  
micro\_up, mcuu1, Zd  
newline, nel, nw  
order\_of\_pins, porder, Ze  
orig\_colors, oc, oc  
orig\_pair, op, op  
pad\_char, pad, pc  
parm\_dch, dch, DC

parm\_delete\_line, dl, DL  
parm\_down\_cursor, cud, DO  
parm\_down\_micro,  
  mcud, Zf  
parm\_ich, ich, IC  
parm\_index, indn, SF  
parm\_insert\_line, il, AL  
parm\_left\_cursor, cub, LE  
parm\_left\_micro, mcub, Zg  
parm\_right\_cursor, cuf, RI  
parm\_right\_micro, mcuf, Zh  
parm\_rindex, rin, SR  
parm\_up\_cursor, cuu, UP  
parm\_up\_micro, mciu, Zi  
pkey\_key, pfkey, pk  
pkey\_local, pfloc, pl  
pkey\_xmit, pfx, px  
plab\_norm, pln, pn  
print\_screen, mc0, ps  
ptr\_non, mc5p, pO  
ptr\_off, mc4, pf  
ptr\_on, mc5, po  
pulse, pulse, PU  
quick\_dial, qdial, QD  
remove\_clock, rmclk, RC  
repeat\_char, rep, rp  
req\_for\_input, rfi, RF  
reset\_1string, rs1, r1  
reset\_2string, rs2, r2  
reset\_3string, rs3, r3  
reset\_file, rf, rf  
restore\_cursor, rc, rc  
row\_address, vpa, cv  
save\_cursor, sc, sc  
scroll\_forward, ind, sf  
scroll\_reverse, ri, sr  
select\_char\_set, scs, Zj  
set\_attributes, sgr, sa  
set\_background, setb, Sb  
set\_bottom\_margin, smgb, Zk  
set\_bottom\_margin\_parm, smgbp, Zl  
set\_clock, sclk, SC  
set\_color\_pair, scp, sp  
set\_foreground, setf, Sf  
set\_left\_margin, smgl, ML  
set\_left\_margin\_parm, smglp, Zm  
set\_right\_margin,

smgr, MR  
set\_right\_margin\_parm, smgrp, Zn  
set\_tab, hts, st  
set\_top\_margin, smgt, Zo  
set\_top\_margin\_parm, smgtp, Zp  
set\_window, wind, wi  
start\_bit\_image, sbim, Zq  
start\_char\_set\_def, scsd, Zr  
stop\_bit\_image, rbim, Zs  
stop\_char\_set\_def, rcsd, Zt  
subscript\_characters, subcs, Zu  
superscript\_characters, supcs, Zv  
tab, ht, ta  
these\_cause\_cr, docr, Zw  
to\_status\_line, tsl, ts  
tone, tone, TO  
underline\_char, uc, uc  
up\_half\_line, hu, hu  
user0, u0, u0  
user1, u1, u1  
user2, u2, u2  
user3, u3, u3  
user4, u4, u4  
user5, u5, u5  
user6, u6, u6  
user7, u7, u7  
user8, u8, u8  
user9, u9, u9  
wait\_tone, wait, WA  
xoff\_character, xoffc, XF  
xon\_character, xonc, XN  
zero\_motion, zerom, Zx  
alt\_scancode\_esc, scesa, S8  
bit\_image\_carriage\_return, bicr, Yv  
bit\_image\_newline, binel, Zz  
bit\_image\_repeat, birep, Xy  
char\_set\_names, csnm, Zy  
code\_set\_init, csin, ci  
color\_names, colorm, Yw  
define\_bit\_image\_region, defbi, Yx  
device\_type, devt, dv  
display\_pc\_char, dispc, S1  
end\_bit\_image\_region, endbi, Yy  
enter\_pc\_charset\_mode,  
smpch, S2  
enter\_scancode\_mode, smsc, S4  
exit\_pc\_charset\_mode, rmpch, S3  
exit\_scancode\_mode, rmsc, S5

get\_mouse, getm, Gm  
key\_mouse, kmous, Km  
mouse\_info, minfo, Mi  
pc\_term\_options, pctrm, S6  
pkey\_plab, pfxl, xl  
req\_mouse\_pos, reqmp, RQ  
scancode\_escape, scesc, S7  
set0\_des\_seq, s0ds, s0  
set1\_des\_seq, s1ds, s1  
set2\_des\_seq, s2ds, s2  
set3\_des\_seq, s3ds, s3  
set\_a\_background, setab, AB  
set\_a\_foreground, setaf, AF  
set\_color\_band, setcolor, Yz  
set\_lr\_margin, smglr, ML  
set\_page\_length, slines, YZ  
set\_tb\_margin, smgtb, MT  
enter\_horizontal\_hl\_mode, ehhl, Xh  
enter\_left\_hl\_mode, elhl, Xl  
enter\_low\_hl\_mode, elohlm, Xo  
enter\_right\_hl\_mode, erhl, Xr  
enter\_top\_hl\_mode, ethlm, Xt  
enter\_vertical\_hl\_mode, evhl, Xv  
set\_a\_attributes, sgr1, sA  
set\_pglen\_inch, slength, sL

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\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utis/capabilities.txt

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\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
 jar/org/jline/builtins/telnet/ConnectionListener.java  
 \*  
 /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
 jar/org/jline/builtins/telnet/ConnectionFilter.java

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black  
 maroon  
 green  
 olive  
 navy  
 purple  
 teal  
 silver  
 grey

red  
lime  
yellow  
blue  
fuchsia  
aqua  
white  
grey0  
navyblue  
darkblue  
blue3  
blue3a  
blue1  
darkgreen  
deepskyblue4  
deepskyblue4a  
deepskyblue4b  
dodgerblue3  
dodgerblue2  
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springgreen4  
turquoise4  
deepskyblue3  
deepskyblue3a  
dodgerblue1  
green3  
springgreen3  
darkcyan  
lightseagreen  
deepskyblue2  
deepskyblue1  
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springgreen3a  
springgreen2  
cyan3  
darkturquoise  
turquoise2  
green1  
springgreen2a  
springgreen1  
mediumspringgreen  
cyan2  
cyan1  
darkred  
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purple4  
purple4a  
purple3

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darkseagreen4  
paleturquoise4  
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steelblue3  
cornflowerblue  
chartreuse3  
darkseagreen4a  
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cadetbluea  
skyblue3  
steelblue1  
chartreuse3a  
palegreen3  
seagreen3  
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chartreuse2  
seagreen2  
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seagreen1a  
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wheat4  
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mediumpurple

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darkseagreen2  
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thistle3  
plum2  
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deeppink1  
deeppink1a  
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indianred1a  
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lightcoral  
palevioletred1  
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thistle1  
yellow1  
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khaki1  
wheat1  
cornsilk1  
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in path(s):

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/colors.txt

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\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/Reference.java

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/Expander.java

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/spi/Pty.java

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/package-info.java

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-

jar/org/jline/terminal/impl/CursorSupport.java

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-

jar/org/jline/terminal/impl/jna/win/WindowsAnsiWriter.java

\*

/opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-

jar/org/jline/reader/impl/completer/NullCompleter.java

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/impl/completer/Levenshtein.java

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-

jar/org/jline/reader/impl/completer/AggregateCompleter.java

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-

jar/org/jline/reader/impl/history/package-info.java

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/keymap/KeyMap.java

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/OSUtils.java

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-

jar/org/jline/reader/impl/completer/package-info.java

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-

jar/org/jline/terminal/impl/MouseEvent.java

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/package-

info.java

\*

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/opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/Attributes.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/terminal/impl/MouseSupport.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/terminal/impl/ExecPty.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/utils/AttributedString.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/utils/ShutdownHooks.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/terminal/impl/AbstractPosixTerminal.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/DiffHelper.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/WCWidth.java
*
/opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/reader/impl/DefaultExpander.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/Source.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/ExecHelper.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/Cursor.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/Macro.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/reader/InputStreamReader.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/Binding.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/reader/UserInterruptException.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/reader/impl/UndoTree.java
*
/opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/reader/impl/completer/EnumCompleter.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/Widget.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/package-info.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/reader/ClosedException.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/terminal/impl/NativeSignalHandler.java
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 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
 jar/org/jline/widget/AutosuggestionWidgets.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/Utils/Signals.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
 jar/org/jline/console/CommandInput.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
 jar/org/jline/terminal/impl/jansi/JansiNativePty.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
 jar/org/jline/console/impl/AbstractCommandRegistry.java  
 \*  
 /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
 jar/org/jline/terminal/impl/jna/win/JnaWinSysTerminal.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
 jar/org/jline/reader/LineReaderBuilder.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
 jar/org/jline/reader/impl/completer/SystemCompleter.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
 jar/org/jline/terminal/impl/jna/linux/CLibrary.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
 jar/org/jline/terminal/impl/jna/osx/CLibrary.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/widget/Widgets.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
 jar/org/jline/terminal/impl/jna/linux/LinuxNativePty.java  
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 \*  
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 jar/org/jline/console/CommandRegistry.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/Nano.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
 jar/org/jline/console/CommandMethods.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
 jar/org/jline/terminal/spi/JnaSupport.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
 jar/org/jline/terminal/TerminalBuilder.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
 jar/org/jline/terminal/impl/jna/JnaSupportImpl.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
 jar/org/jline/console/impl/Builtins.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/Utils/Display.java  
 \* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
 jar/org/jline/terminal/impl/jansi/win/JansiWinSysTerminal.java  
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 jar/org/jline/terminal/impl/jna/solaris/SolarisNativePty.java  
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jar/org/jline/terminal/impl/jansi/JansiSupportImpl.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/Log.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/reader/impl/DefaultParser.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/Parser.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/reader/impl/LineReaderImpl.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/builtins/ConsoleOptionGetter.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/console/impl/JlineCommandRegistry.java
*
/opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/reader/CompletionMatcher.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/console/CmdLine.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/reader/EndOfFileException.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/TTop.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/console/ConsoleEngine.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/ColorPalette.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/terminal/impl/jna/solaris/CLibrary.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/console/CmdDesc.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/terminal/impl/jna/freebsd/CLibrary.java
*
/opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/terminal/spi/JansiSupport.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/console/ScriptEngine.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/terminal/impl/jna/freebsd/FreeBsdNativePty.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/terminal/impl/jna/JnaNativePty.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/terminal/impl/jna/osx/OsXNativePty.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/Less.java
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 */
```

Found in path(s):

```
*/opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/Options.java
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```

Found in path(s):

```
*/opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jansi/win/WindowsAnsiWriter.java
*/opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jansi/win/WindowsAnsiWriter.java
No license file was found, but licenses were detected in source scan.
```

```
<!--
```

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Found in path(s):

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/META-INF/maven/org.jline/jline-console/pom.xml

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/META-INF/maven/org.jline/jline-terminal-jansi/pom.xml

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/META-INF/maven/org.jline/jline-remote-ssh/pom.xml

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/META-INF/maven/org.jline/jline-reader/pom.xml

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/META-INF/maven/org.jline/jline/pom.xml

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/META-INF/maven/org.jline/jline-terminal-jna/pom.xml

\*

/opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/META-INF/maven/org.jline/jline-builtins/pom.xml

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/META-INF/maven/org.jline/jline-style/pom.xml

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/META-INF/maven/org.jline/jline-terminal/pom.xml

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/META-INF/maven/org.jline/jline-remote-telnet/pom.xml

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Found in path(s):

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/AbstractWindowsTerminal.java

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/Candidate.java

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/Status.java

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-



jar/org/jline/terminal/impl/AbstractPty.java  
\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
jar/org/jline/builtins/ConfigurationPath.java  
\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/Tmux.java  
\*  
/opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
jar/org/jline/reader/impl/completer/ArgumentCompleter.java  
\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
jar/org/jline/reader/impl/completer/StringsCompleter.java  
\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/InfoCmp.java  
\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/Highlighter.java  
\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/Editor.java  
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Found in path(s):

\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
jar/org/jline/console/impl/DefaultPrinter.java  
\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
jar/org/jline/console/impl/ConsoleEngineImpl.java  
\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
jar/org/jline/reader/PrintAboveWriter.java  
\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/Commands.java  
\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
jar/org/jline/reader/impl/history/DefaultHistory.java  
\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/console/ArgDesc.java  
\*  
/opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
jar/org/jline/reader/impl/DefaultHighlighter.java  
\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/console/Printer.java  
\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
jar/org/jline/widget/TailTipWidgets.java  
\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/Styles.java  
\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/LineReader.java  
\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
jar/org/jline/console/impl/SystemRegistryImpl.java  
\* /opt/cola/permits/1434683282\_1665037674.3132415/0/jline-3-20-0-sources-  
jar/org/jline/reader/impl/CompletionMatcherImpl.java

```
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/Completers.java
*
/opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/terminal/impl/AbstractTerminal.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/console/impl/SystemHighlighter.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-
jar/org/jline/console/SystemRegistry.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/AttributedStyle.java
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```

Found in path(s):

```
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/SyntaxError.java
*
/opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/EOFError.java
```

## 1.81 protobuf-java 3.19.6

### 1.81.1 Available under license :

No license file was found, but licenses were detected in source scan.

Manifest-Version: 1.0

Automatic-Module-Name: com.google.protobuf

Bnd-LastModified: 1664485905970

Build-Jdk: 1.8.0\_181-google-v7

Built-By: mkruskal

Bundle-Description: Core Protocol Buffers library. Protocol Buffers are a way of encoding structured data in an efficient yet extensible for

mat.  
Bundle-DocURL: <https://developers.google.com/protocol-buffers/>  
Bundle-License: <https://opensource.org/licenses/BSD-3-Clause>  
Bundle-ManifestVersion: 2  
Bundle-Name: Protocol Buffers [Core]  
Bundle-SymbolicName: com.google.protobuf  
Bundle-Version: 3.19.6  
Created-By: Apache Maven Bundle Plugin  
Export-Package: com.google.protobuf;version="3.19.6"  
Import-Package: sun.misc;resolution:=optional,com.google.protobuf;version="[3.19,4)"  
Require-Capability: osgi.ee;filter="(&(osgi.ee=JavaSE)(version=1.7))"  
Tool: Bnd-3.0.0.201509101326

Found in path(s):

\* /opt/cola/permits/1444789790\_1666041710.804059/0/protobuf-java-3-19-6-jar/META-INF/MANIFEST.MF  
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```
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Found in path(s):

\* /opt/cola/permits/1444789790\_1666041710.804059/0/protobuf-java-3-19-6-jar/google/protobuf/timestamp.proto  
\* /opt/cola/permits/1444789790\_1666041710.804059/0/protobuf-java-3-19-6-jar/google/protobuf/struct.proto  
\* /opt/cola/permits/1444789790\_1666041710.804059/0/protobuf-java-3-19-6-jar/google/protobuf/wrappers.proto  
\*  
/opt/cola/permits/1444789790\_1666041710.804059/0/protobuf-java-3-19-6-jar/google/protobuf/type.proto  
\* /opt/cola/permits/1444789790\_1666041710.804059/0/protobuf-java-3-19-6-jar/google/protobuf/empty.proto  
\* /opt/cola/permits/1444789790\_1666041710.804059/0/protobuf-java-3-19-6-jar/google/protobuf/any.proto  
\* /opt/cola/permits/1444789790\_1666041710.804059/0/protobuf-java-3-19-6-jar/google/protobuf/descriptor.proto  
\* /opt/cola/permits/1444789790\_1666041710.804059/0/protobuf-java-3-19-6-jar/google/protobuf/duration.proto  
\* /opt/cola/permits/1444789790\_1666041710.804059/0/protobuf-java-3-19-6-jar/google/protobuf/field\_mask.proto  
\* /opt/cola/permits/1444789790\_1666041710.804059/0/protobuf-java-3-19-6-jar/google/protobuf/compiler/plugin.proto  
\* /opt/cola/permits/1444789790\_1666041710.804059/0/protobuf-java-3-19-6-jar/google/protobuf/source\_context.proto  
\* /opt/cola/permits/1444789790\_1666041710.804059/0/protobuf-java-3-19-6-jar/google/protobuf/api.proto

# 1.82 kotlin 1.6.21

## 1.82.1 Available under license :

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```
{ "version":3,"file":"kotlin.js","sources":["wrapper.js","js/arrayUtils.js","js/callableReferenceUtils.js","js/conversions.js","js/core.js","js/long.js","js/markerFunctions.js","js/misc.js","js/polyfills.js","js/rtti.js","runtime/arrayUtils.kt","runtime/Enum.kt","primitiveCompanionObjects.kt","common/src/generated/_Arrays.kt","common/src/generated/_Ranges.kt","unsigned/src/kotlin/UByte.kt","unsigned/src/kotlin/UInt.kt","unsigned/src/kotlin/UShort.kt","builtin-sources/Ranges.kt","src/kotlin/collections/Collections.kt","src/kotlin/collections/Maps.kt","src/kotlin/collections/Sets.kt","src/kotlin/text/StringNumberConversions.kt","src/kotlin/time/Duration.kt","unsigned/src/kotlin/UnsignedUtils.kt","src/kotlin/collections/Iterables.kt","src/kotlin/collections/Sequences.kt","src/kotlin/util/Preconditions.kt","js/src/generated/_ArraysJs.kt","src/kotlin/comparisons/Comparisons.kt","src/kotlin/util/Standard.kt","js/src/generated/_ComparisonsJs.kt","unsigned/src/kotlin/ULong.kt","common/src/generated/_Collections.kt","js/src/kotlin/collections.kt","src/kotlin/collections/Iterators.kt","common/src/generated/_Comparisons.kt","common/src/generated/_Maps.kt","common/src/generated/_OneToManyTitlecaseMappings.kt","js/src/kotlin/text/char.kt","js/src/kotlin/text/string.kt","src/kotlin/text/Char.kt","src/kotlin/CharCode.kt","common/src/generated/_Sequences.kt","common/src/generated/_Sets.kt","common/src/generated/_Strings.kt","src/kotlin/text/Strings.kt","unsigned/src/kotlin/UByteArray.kt","unsigned/src/kotlin/UIntArray.kt","unsigned/src/kotlin/ULongArray.kt","unsigned/src/kotlin/UShortArray.kt","common/src/generated/_UArrays.kt","common/src/generated/_UCollections.kt","common/src/generated/_UComparisons.kt","common/src/generated/_URanges.kt","common/src/generated/_USequences.kt","common/src/kotlin/ExceptionsH.kt","common/src/kotlin/JsAnnotationsH.kt","common/src/kotlin/ioH.kt","builtin-sources/Collections.kt","builtin-sources/Iterators.kt","builtin-sources/ProgressionIterators.kt","builtin-sources/Progressions.kt","builtin-sources/Range.kt","builtin-sources/Unit.kt","builtin-sources/annotation/Annotations.kt","builtin-sources/internal/InternalAnnotations.kt","builtin-sources/internal/progressionUtil.kt","src/kotlin/builtins.kt","src/kotlin/jsTypeOf.kt","src/kotlin/kotlin.kt","src/kotlin/CharCode_js-v1.kt","src/kotlin/coroutines/CoroutineImpl.kt","src/kotlin/util/Result.kt","src/kotlin/coroutines/Continuation.kt","src/kotlin/coroutines/intrinsics/IntrinsicsJs.kt","src/kotlin/currentBeMisc.kt","src/kotlin/exceptions.kt","src/kotlin/jsOperators.kt","src/kotlin/math_js-v1.kt","src/kotlin/numbers_js-v1.kt","src/kotlin/reflection_js-v1.kt","src/kotlin/text/numberConversions_js-v1.kt","js/src/generated/_CharCategories.kt","js/src/generated/_CollectionsJs.kt","js/src/generated/_DigitChars.kt","js/src/generated/_LetterChars.kt","js/src/generated/_OtherLowercaseChars.kt","js/src/generated/_OtherUppercaseChars.kt","js/src/generated/_StringsJs.kt","js/src/generated/_TitlecaseMappings.kt","js/src/generated/_UArraysJs.kt","js/src/generated/_WhitespaceChars.kt","js/src/kotlin/Comparator.kt","js/src/kotlin/annotations.kt","js/src/kotlin/annotationsJVM.kt","js/src/kotlin/collections/AbstractMutableCollection.kt","js/src/kotlin/collections/AbstractMutableList.kt","js/src/kotlin/collections/AbstractMutableMap.kt","js/src/kotlin/collections/AbstractMutableSet.kt","js/src/kotlin/collections/ArrayList.kt","js/src/kotlin/collections/ArraySorting.kt","js/src/kotlin/collections/ArraysJs.kt","js/src/kotlin/collections/EqualityComparator.kt","js/src/kotlin/collections/HashMap.kt","js/src/kotlin/collections/HashSet.kt","js/src/kotlin/collections/InternalHashCodeMap.kt","js/src/kotlin/collections/InternalMap.kt","js/src/kotlin/collections/InternalStringMap.kt","js/src/kotlin/collections/LinkedHashMap.kt","js/src/kotlin/collections/LinkedHashSet.kt","js/src/kotlin/concurrent.kt","js/src/kotlin/console.kt","js/src/kotlin/coroutines/SafeContinuationJs.kt","js/src/kotlin/coroutines/cancellation/CancellationException.kt","js/src/kotlin/coroutines/js/internal/EmptyContinuation.kt","js/src/kotlin/date.kt","js/src/kotlin/dom/Builders.kt","js/src/kotlin/dom/Classes.kt","js/src/kotlin/dom/Dom.kt","js/src/kotlin/dom/EventListener.kt","js/src/kotlin/dom/ItemArrayLike.kt","js/src/kotlin/dom/Mutations.kt","js/src/kotlin/dynamic.kt","js/src/kotlin/exceptionUtils.kt","js/src/kotlin/grouping.kt","src/kotlin/collections/Grouping.kt","js/src/kotlin/internalAnnotations.kt","js/src/kotlin/json.kt","js/src/kotlin/math.kt","js/src/kotlin/numbers.kt","js/src/kotlin/promise.
```

kt", "js/src/kotlin/random/PlatformRandom.kt", "js/src/kotlin/reflect/AssociatedObjects.kt", "js/src/kotlin/reflect/JsClass.kt", "js/src/kotlin/reflect/KClassImpl.kt", "js/src/kotlin/reflect/KClassesImpl.kt", "js/src/kotlin/reflect/KTypeHelpers.kt", "js/src/kotlin/reflect/KTypeImpl.kt", "js/src/kotlin/reflect/KTypeParameterImpl.kt", "js/src/kotlin/reflect/primitives.kt", "js/src/kotlin/reflect/reflection.kt", "js/src/kotlin/regexp.kt", "js/src/kotlin/sequence.kt", "js/src/kotlin/text/CharCategoryJS.kt", "js/src/kotlin/text/CharacterCodingExceptionJs.kt", "js/src/kotlin/text/StringBuilderJs.kt", "js/src/kotlin/text/numberConversions.kt", "js/src/kotlin/text/regex.kt", "src/kotlin/text/StringBuilder.kt", "js/src/kotlin/text/stringsCode.kt", "js/src/kotlin/text/utf8Encoding.kt", "js/src/kotlin/throwableExtensions.kt", "js/src/kotlin/time/DurationJs.kt", "js/src/kotlin/time/DurationUnit.kt", "js/src/kotlin/time/MonoTimeSource.kt", "js/src/kotlinx/dom/Builders.kt", "js/src/kotlinx/dom/Classes.kt", "src/kotlin/text/regex/RegexExtensions.kt", "js/src/kotlinx/dom/Dom.kt", "js/src/kotlinx/dom/Mutations.kt", "js/src/org.w3c/deprecated.kt", "js/src/org.w3c/org.khronos.webgl.kt", "js/src/org.w3c/org.w3c.dom.clipboard.kt", "js/src/org.w3c/org.w3c.dom.css.kt", "js/src/org.w3c/org.w3c.dom.encryptedmedia.kt", "js/src/org.w3c/org.w3c.dom.events.kt", "js/src/org.w3c/org.w3c.dom.kt", "js/src/org.w3c/org.w3c.fetch.kt", "js/src/org.w3c/org.w3c.dom.mediacapture.kt", "js/src/org.w3c/org.w3c.dom.mediasource.kt", "js/src/org.w3c/org.w3c.dom.pointerevents.kt", "js/src/org.w3c/org.w3c.dom.svg.kt", "js/src/org.w3c/org.w3c.files.kt", "js/src/org.w3c/org.w3c.notifications.kt", "js/src/org.w3c/org.w3c.workers.kt", "js/src/org.w3c/org.w3c.xhr.kt", "src/kotlin/annotations/Experimental.kt", "src/kotlin/annotations/ExperimentalStdlibApi.kt", "src/kotlin/annotations/Inference.kt", "src/kotlin/annotations/Multiplatform.kt", "src/kotlin/annotations/OptIn.kt", "src/kotlin/collections/AbstractCollection.kt", "src/kotlin/collections/AbstractIterator.kt", "src/kotlin/collections/AbstractList.kt", "src/kotlin/collections/AbstractMap.kt", "src/kotlin/collections/AbstractSet.kt", "src/kotlin/collections/ArrayDeque.kt", "src/kotlin/collections/Arrays.kt", "src/kotlin/collections/BrittleContainsOptimization.kt", "src/kotlin/collections/IndexedValue.kt", "src/kotlin/collections/MapAccessors.kt", "src/kotlin/collections/MapWithDefault.kt", "src/kotlin/collections/MutableCollections.kt", "src/kotlin/collections/ReversedViews.kt", "src/kotlin/collections/SequenceBuilder.kt", "src/kotlin/collections/SlidingWindow.kt", "src/kotlin/collections/UArraySorting.kt", "src/kotlin/comparisons/compareTo.kt", "src/kotlin/contracts/ContractBuilder.kt", "src/kotlin/coroutines/ContinuationInterceptor.kt", "src/kotlin/coroutines/CoroutineContext.kt", "src/kotlin/coroutines/CoroutineContextImpl.kt", "src/kotlin/coroutines/intrinsics/Intrinsics.kt", "src/kotlin/experimental/bitwiseOperations.kt", "src/kotlin/experimental/inferenceMarker.kt", "src/kotlin/internal/Annotations.kt", "src/kotlin/properties/Delegates.kt", "src/kotlin/properties/Interfaces.kt", "src/kotlin/properties/ObservableProperty.kt", "src/kotlin/properties/PropertyReferenceDelegates.kt", "src/kotlin/random/Random.kt", "src/kotlin/random/URandom.kt", "src/kotlin/random/XorWowRandom.kt", "src/kotlin/ranges/Ranges.kt", "src/kotlin/reflect/KClasses.kt", "src/kotlin/reflect/KTypeProjection.kt", "src/kotlin/reflect/KVariance.kt", "src/kotlin/reflect/typeOf.kt", "src/kotlin/text/Appendable.kt", "src/kotlin/text/Indent.kt", "src/kotlin/text/Typography.kt", "src/kotlin/text/regex/MatchResult.kt", "src/kotlin/time/DurationUnit.kt", "src/kotlin/time/ExperimentalTime.kt", "src/kotlin/time/TimeSource.kt", "src/kotlin/time/TimeSources.kt", "src/kotlin/time/measureTime.kt", "src/kotlin/util/DeepRecursive.kt", "src/kotlin/util/FloorDivMod.kt", "src/kotlin/util/HashCode.kt", "src/kotlin/util/KotlinVersion.kt", "src/kotlin/util/Lateinit.kt", "src/kotlin/util/Lazy.kt", "src/kotlin/util/Numbers.kt", "src/kotlin/util/Suspend.kt", "src/kotlin/util/Tuples.kt", "unsigned/src/kotlin/UIntRange.kt", "unsigned/src/kotlin/UIterators.kt", "unsigned/src/kotlin/ULongRange.kt", "unsigned/src/kotlin/UMath.kt", "unsigned/src/kotlin/UNumbers.kt", "unsigned/src/kotlin/UProgressionUtil.kt", "unsigned/src/kotlin/UStrings.kt", "unsigned/src/kotlin/annotations/Unsigned.kt", "common/src/kotlin/MathH.kt"], "sourcesContent": ["(function (root, factory) {\n if (typeof define === 'function' && define.amd) {\n define('kotlin', ['exports'], factory);\n }\n else if (typeof exports === 'object') {\n factory(module.exports);\n }\n else {\n root.kotlin = {};\n factory(root.kotlin);\n }\n}(this, function (Kotlin) {\n var \_ = Kotlin;\n\n insertContent();\n}));\n", "/\*\n \* Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors. \n \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n\n\*/\n\nKotlin.isArray = function (a) {\n return (Array.isArray(a) || a instanceof Int8Array) && a.\$type\$ === \"BooleanArray\";\n}\n\nKotlin.isByteArray = function (a) {\n return a instanceof Int8Array && a.\$type\$ !== \"BooleanArray\";\n}\n\nKotlin.isShortArray = function (a) {\n return a instanceof Int16Array;\n}\n\nKotlin.isCharArray = function (a) {\n return a instanceof Uint16Array

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&& a.$type$ === \'CharArray\'");\n\nKotlin.isIntArray = function (a) {\n  return a instanceof
Int32Array\n};\n\nKotlin.isFloatArray = function (a) {\n  return a instanceof
Float32Array\n};\n\nKotlin.isDoubleArray = function (a) {\n  return a instanceof
Float64Array\n};\n\nKotlin.isLongArray = function (a) {\n  return Array.isArray(a) && a.$type$ ===
\'LongArray\'");\n\nKotlin.isArray = function (a) {\n  return Array.isArray(a) &&
!a.$type$;\n};\n\nKotlin.isArrayish = function (a) {\n  return Array.isArray(a) ||
ArrayBuffer.isView(a)\n};\n\nKotlin.arrayToString = function (a) {\n  if (a === null) return \'null\'\n  var
toString = Kotlin.isCharArray(a) ? String.fromCharCode : Kotlin.toString;\n  return "[" +
Array.prototype.map.call(a, function(e) { return toString(e); }).join(", ") + "]"");\n\nKotlin.arrayDeepToString
= function (arr) {\n  return Kotlin.kotlin.collections.contentDeepToStringImpl(arr);\n};\n\nKotlin.arrayEquals =
function (a, b) {\n
  if (a === b) {\n    return true;\n  }\n  if (a === null || b === null || !Kotlin.isArrayish(b) || a.length !==
b.length) {\n    return false;\n  }\n  for (var i = 0, n = a.length; i < n; i++) {\n    if (!Kotlin.equals(a[i], b[i]))
{\n      return false;\n    }\n  }\n  return true;\n};\n\nKotlin.arrayDeepEquals = function (a, b) {\n  return
Kotlin.kotlin.collections.contentDeepEqualsImpl(a, b);\n};\n\nKotlin.arrayHashCode = function (arr) {\n  if (arr
=== null) return 0\n  var result = 1;\n  for (var i = 0, n = arr.length; i < n; i++) {\n    result = ((31 * result | 0) +
Kotlin.hashCode(arr[i])) | 0;\n  }\n  return result;\n};\n\nKotlin.arrayDeepHashCode = function (arr) {\n  return
Kotlin.kotlin.collections.contentDeepHashCodeImpl(arr);\n};\n\nKotlin.primitiveArraySort = function (array) {\n
array.sort(Kotlin.doubleCompareTo)\n};\n";\n"/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming
Language contributors. \n
* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\nKotlin.getCallableRef = function(name, f) {\n  f.callableName = name;\n  return
f;\n};\n\nKotlin.getPropertyCallableRef = function(name, paramCount, getter, setter) {\n  getter.get = getter;\n
getter.set = setter;\n  getter.callableName = name;\n  return getPropertyRefClass(getter, setter,
propertyRefClassMetadataCache[paramCount]);\n};\n\nfunction getPropertyRefClass(obj, setter, cache) {\n
obj.$metadata$ = getPropertyRefMetadata(typeof setter === \'function\' ? cache.mutable : cache.immutable);\n
obj.constructor = obj;\n  return obj;\n}\n\nvar propertyRefClassMetadataCache = [\n  {\n    mutable: { value:
null, implementedInterface: function () {\n      return Kotlin.kotlin.reflect.KMutableProperty0 }\n    },\n
immutable: { value: null, implementedInterface: function () {\n      return Kotlin.kotlin.reflect.KProperty0
}\n    }\n  },\n  {\n    mutable: { value: null, implementedInterface: function () {\n      return
Kotlin.kotlin.reflect.KMutableProperty1 }\n    },\n    immutable: { value: null, implementedInterface: function
() {\n      return Kotlin.kotlin.reflect.KProperty1 }\n    }\n  }\n];\n\nfunction getPropertyRefMetadata(cache)
{\n  if (cache.value === null) {\n    cache.value = {\n      interfaces: [cache.implementedInterface()],\n
baseClass: null,\n      functions: {},\n      properties: {},\n      types: {},\n      staticMembers: {}\n
};\n  }\n  return cache.value;\n}\n"/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming
Language contributors. \n
* Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\nKotlin.toShort = function (a) {\n  return (a & 0xFFFF) << 16 >>
16;\n};\n\nKotlin.toByte = function (a) {\n
  return (a & 0xFF) << 24 >> 24;\n};\n\nKotlin.toChar = function (a) {\n  return a &
0xFFFF;\n};\n\nKotlin.numberToLong = function (a) {\n  return a instanceof Kotlin.Long ? a :
Kotlin.Long.fromNumber(a);\n};\n\nKotlin.numberToInt = function (a) {\n  return a instanceof Kotlin.Long ?
a.toInt() : Kotlin.doubleToInt(a);\n};\n\nKotlin.numberToShort = function (a) {\n  return
Kotlin.toShort(Kotlin.numberToInt(a));\n};\n\nKotlin.numberToByte = function (a) {\n  return
Kotlin.toByte(Kotlin.numberToInt(a));\n};\n\nKotlin.numberToDouble = function (a) {\n  return
+a;\n};\n\nKotlin.numberToChar = function (a) {\n  return
Kotlin.toChar(Kotlin.numberToInt(a));\n};\n\nKotlin.doubleToInt = function(a) {\n  if (a > 2147483647) return
2147483647;\n  if (a < -2147483648) return -2147483648;\n  return a | 0;\n};\n\nKotlin.toBoxedChar = function
(a) {\n  if (a == null) return a;\n  if (a instanceof Kotlin.BoxedChar) return a;\n  return new

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Kotlin.BoxedChar(a);\n};\n\nKotlin.unboxChar

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= function(a) {\n  if (a == null) return a;\n  return Kotlin.toChar(a);\n};\n", /*\n * Copyright 2010-2018 JetBrains  
s.r.o. and Kotlin Programming Language contributors. \n * Use of this source code is governed by the Apache 2.0  
license that can be found in the license/LICENSE.txt file.\n */\n\nKotlin.equals = function (obj1, obj2) {\n  if (obj1  
== null) {\n    return obj2 == null;\n  }\n  if (obj2 == null) {\n    return false;\n  }\n  if (obj1 !== obj2)  
{\n    return obj2 !== obj2;\n  }\n  if (typeof obj1 === "object" && typeof obj1.equals === "function") {\n    return obj1.equals(obj2);\n  }\n  if (typeof obj1 === "number" && typeof obj2 === "number") {\n    return obj1 === obj2 && (obj1 !== 0 || 1 / obj1 === 1 / obj2)\n  }\n  return obj1 ===  
obj2;\n};\n\nKotlin.hashCode = function (obj) {\n  if (obj == null) {\n    return 0;\n  }\n  var objType = typeof  
obj;\n  if ("object" === objType) {\n    return "function" === typeof obj.hashCode ? obj.hashCode() : getObjectHashCode(obj);\n  }\n  if  
("function" === objType) {\n    return getObjectHashCode(obj);\n  }\n  if ("number" === objType) {\n    return Kotlin.numberHashCode(obj);\n  }\n  if ("boolean" === objType) {\n    return Number(obj)\n  }\n  var str = String(obj);\n  return getStringHashCode(str);\n};\n\nKotlin.toString = function (o) {\n  if (o == null)  
{\n    return "null";\n  }\n  else if (Kotlin.isArrayish(o)) {\n    return "[...]";\n  }\n  else {\n    return  
o.toString();\n  }\n};\n\n/** @const */\nvar POW_2_32 = 4294967296;\n// TODO: consider switching to Symbol  
type once we are on ES6.\n/** @const */\nvar OBJECT_HASH_CODE_PROPERTY_NAME =  
"kotlinHashCodeValue";\n\nfunction getObjectHashCode(obj) {\n  if  
(! (OBJECT_HASH_CODE_PROPERTY_NAME in obj)) {\n    var hash = (Math.random() * POW_2_32) | 0; //  
Make 32-bit signed integer.\n    Object.defineProperty(obj,  
    OBJECT_HASH_CODE_PROPERTY_NAME, { value: hash, enumerable: false });\n  }\n  return  
obj[OBJECT_HASH_CODE_PROPERTY_NAME];\n}\n\nfunction getStringHashCode(str) {\n  var hash = 0;\n  for (var i = 0; i < str.length; i++) {\n    var code = str.charCodeAt(i);\n    hash = (hash * 31 + code) | 0; // Keep  
it 32-bit.\n  }\n  return hash;\n}\n\nKotlin.identityHashCode = getObjectHashCode;\n", /*\n * Copyright 2010-  
2018 JetBrains s.r.o. and Kotlin Programming Language contributors. \n * Use of this source code is governed by  
the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Copyright 2009 The Closure  
Library Authors. All Rights Reserved.\n// Licensed under the Apache License, Version 2.0 (the "License");\n// you may not use this file except in compliance with the License.\n// You may obtain a copy of the License at\n//\n// http://www.apache.org/licenses/LICENSE-2.0\n// Unless required by applicable law  
or agreed to in writing, software\n// distributed under the License is distributed on an "AS-IS" BASIS,\n//  
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.\n\n/**\n * Constructs a  
64-bit two's-complement integer, given its low and high 32-bit\n * values as *signed* integers. See the from*  
functions below for more\n * convenient ways of constructing Longs.\n * \n * The internal representation of a long is  
the two given signed, 32-bit values.\n * We use 32-bit pieces because these are the size of integers on which\n * Javascript performs bit-operations. For operations like addition and\n * multiplication, we split each number into  
16-bit pieces, which can easily be\n * multiplied within Javascript's floating-point representation without overflow\n * or change in sign.\n * \n * In the algorithms below, we frequently reduce the negative case to the\n * positive case  
by negating the input(s) and then post-processing the result.\n * Note that we must ALWAYS check  
specially whether those values are MIN_VALUE\n * (-2^63) because -MIN_VALUE == MIN_VALUE (since  
2^63 cannot be represented as\n * a positive number, it overflows back into a negative). Not handling this\n * case  
would often result in infinite recursion.\n * \n * @param {number} low The low (signed) 32 bits of the long.\n * @param {number} high The high (signed) 32 bits of the long.\n * @constructor\n * @final\n * \nKotlin.Long =  
function(low, high) {\n  /**\n * @type {number}\n * @private\n */\n  this.low_ = low | 0; // force into 32  
signed bits.\n  /**\n * @type {number}\n * @private\n */\n  this.high_ = high | 0; // force into 32 signed  
bits.\n};\n\nKotlin.Long.$metadata$ = {\n  kind: "class",\n  simpleName: "Long",\n  interfaces: []\n};\n\n//  
NOTE: Common constant values ZERO, ONE, NEG_ONE, etc. are defined below the\n// from* methods on which  
they depend.\n\n/**\n * A cache of the Long representations of small integer values.\n * @type {!Object}\n * @private\n */
```

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*^/nKotlin.Long.IntCache_ = {};^/n/n/**^/n * Returns a Long representing the given (32-bit) integer value.^/n *
@param {number} value The 32-bit integer in question.^/n * @return {!Kotlin.Long} The corresponding Long
value.^/n *^/nKotlin.Long.fromInt = function(value) {^/n if (-128 <= value && value < 128) {^/n var cachedObj =
Kotlin.Long.IntCache_[value];^/n if (cachedObj) {^/n return cachedObj;^/n }^/n }^/n var obj = new
Kotlin.Long(value | 0, value < 0 ? -1 : 0);^/n if (-128 <= value && value < 128) {^/n Kotlin.Long.IntCache_[value]
= obj;^/n }^/n return obj;^/n};^/n/n/n/**^/n * Converts this number value to `Long`.^/n * The fractional part, if any, is
rounded down towards zero.^/n * Returns zero if this `Double` value is `NaN`, `Long.MIN_VALUE` if it's less than
`Long.MIN_VALUE`,^/n * `Long.MAX_VALUE` if it's bigger than `Long.MAX_VALUE`.^/n * @param {number}
value The number in question.^/n * @return {!Kotlin.Long} The corresponding Long value.^/n
*^/nKotlin.Long.fromNumber
= function(value) {^/n if (isNaN(value)) {^/n return Kotlin.Long.ZERO;^/n } else if (value <= -
Kotlin.Long.TWO_PWR_63_DBL_) {^/n return Kotlin.Long.MIN_VALUE;^/n } else if (value + 1 >=
Kotlin.Long.TWO_PWR_63_DBL_) {^/n return Kotlin.Long.MAX_VALUE;^/n } else if (value < 0) {^/n return
Kotlin.Long.fromNumber(-value).negate();^/n } else {^/n return new Kotlin.Long(^/n (value %
Kotlin.Long.TWO_PWR_32_DBL_) | 0, ^/n (value / Kotlin.Long.TWO_PWR_32_DBL_) | 0);^/n
}^/n};^/n/n/n/**^/n * Returns a Long representing the 64-bit integer that comes by concatenating^/n * the given high and
low bits. Each is assumed to use 32 bits.^/n * @param {number} lowBits The low 32-bits.^/n * @param {number}
highBits The high 32-bits.^/n * @return {!Kotlin.Long} The corresponding Long value.^/n^/nKotlin.Long.fromBits
= function(lowBits, highBits) {^/n return new Kotlin.Long(lowBits, highBits);^/n};^/n/n/n/**^/n * Returns a Long
representation of the given string, written using the given^/n *
radix.^/n * @param {string} str The textual representation of the Long.^/n * @param {number=} opt_radix The radix
in which the text is written.^/n * @return {!Kotlin.Long} The corresponding Long value.^/n
*^/nKotlin.Long.fromString = function(str, opt_radix) {^/n if (str.length == 0) {^/n throw Error('number format
error: empty string');^/n }^/n var radix = opt_radix || 10;^/n if (radix < 2 || 36 < radix) {^/n throw Error('radix out of
range: ' + radix);^/n }^/n if (str.charAt(0) == '-') {^/n return Kotlin.Long.fromString(str.substring(1),
radix).negate();^/n } else if (str.indexOf('-') >= 0) {^/n throw Error('number format error: interior "-" character: ' +
str);^/n }^/n // Do several (8) digits each time through the loop, so as to^/n // minimize the calls to the very
expensive emulated div.^/n var radixToPower = Kotlin.Long.fromNumber(Math.pow(radix, 8));^/n var result =
Kotlin.Long.ZERO;^/n for (var i = 0; i < str.length; i += 8) {^/n var size = Math.min(8, str.length
- i);^/n var value = parseInt(str.substring(i, i + size), radix);^/n if (size < 8) {^/n var power =
Kotlin.Long.fromNumber(Math.pow(radix, size));^/n result =
result.multiply(power).add(Kotlin.Long.fromNumber(value));^/n } else {^/n result =
result.multiply(radixToPower);^/n result = result.add(Kotlin.Long.fromNumber(value));^/n }^/n }^/n return
result;^/n};^/n/n/n// NOTE: the compiler should inline these constant values below and then remove^/n// these
variables, so there should be no runtime penalty for these.^/n/n/n/**^/n * Number used repeated below in calculations.
This must appear before the^/n * first call to any from* function below.^/n * @type {number}^/n * @private^/n
*^/nKotlin.Long.TWO_PWR_16_DBL_ = 1 << 16;^/n/n/n/**^/n * @type {number}^/n * @private^/n
*^/nKotlin.Long.TWO_PWR_24_DBL_ = 1 << 24;^/n/n/n/**^/n * @type {number}^/n * @private^/n
*^/nKotlin.Long.TWO_PWR_32_DBL_ =^/n Kotlin.Long.TWO_PWR_16_DBL_ *
Kotlin.Long.TWO_PWR_16_DBL_;^/n/n/n/**^/n * @type {number}^/n
* @private^/n *^/nKotlin.Long.TWO_PWR_31_DBL_ =^/n Kotlin.Long.TWO_PWR_32_DBL_ / 2;^/n/n/n/**^/n *
@type {number}^/n * @private^/n *^/nKotlin.Long.TWO_PWR_48_DBL_ =^/n Kotlin.Long.TWO_PWR_32_DBL_
* Kotlin.Long.TWO_PWR_16_DBL_;^/n/n/n/**^/n * @type {number}^/n * @private^/n
*^/nKotlin.Long.TWO_PWR_64_DBL_ =^/n Kotlin.Long.TWO_PWR_32_DBL_ *
Kotlin.Long.TWO_PWR_32_DBL_;^/n/n/n/**^/n * @type {number}^/n * @private^/n
*^/nKotlin.Long.TWO_PWR_63_DBL_ =^/n Kotlin.Long.TWO_PWR_64_DBL_ / 2;^/n/n/n/** @type
{!Kotlin.Long} *^/nKotlin.Long.ZERO = Kotlin.Long.fromInt(0);^/n/n/n/** @type {!Kotlin.Long}
*^/nKotlin.Long.ONE = Kotlin.Long.fromInt(1);^/n/n/n/** @type {!Kotlin.Long} *^/nKotlin.Long.NEG_ONE =

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Kotlin.Long.fromInt(-1);\n\n/** @type {!Kotlin.Long} */\nKotlin.Long.MAX_VALUE =\nKotlin.Long.fromBits(0xFFFFFFFF | 0, 0x7FFFFFFF | 0);\n\n/** @type {!Kotlin.Long} */\nKotlin.Long.MIN_VALUE = Kotlin.Long.fromBits(0, 0x80000000 | 0);\n\n/**\n * @type {!Kotlin.Long}\n * @private\n */\nKotlin.Long.TWO_PWR_24_\n    = Kotlin.Long.fromInt(1 << 24);\n\n/** @return {number} The value, assuming it is a 32-bit integer.\n */\nKotlin.Long.prototype.toInt = function() {\n    return this.low_;\n};\n\n/** @return {number} The closest floating-point representation to this value.\n */\nKotlin.Long.prototype.toNumber = function() {\n    return this.high_ * Kotlin.Long.TWO_PWR_32_DBL_ +\n        this.getLowBitsUnsigned();\n};\n\n/** @return {number} The 32-bit hashCode of this value.\n */\nKotlin.Long.prototype.hashCode = function() {\n    return this.high_ ^ this.low_;\n};\n\n/**\n * @param {number=} opt_radix The radix in which the text should be written.\n * @return {string} The textual representation of this value.\n * @override\n */\nKotlin.Long.prototype.toString = function(opt_radix) {\n    var radix = opt_radix || 10;\n    if (radix < 2 || 36 < radix) {\n        throw Error('radix out of range: ' + radix);\n    }\n    if (this.isZero()) {\n        return '0';\n    }\n    if (this.isNegative()) {\n        if (this.equalsLong(Kotlin.Long.MIN_VALUE))\n            {\n                // We need to change the Long value before it can be negated, so we remove\n                // the bottom-most digit in this base and then recurse to do the rest.\n                var radixLong = Kotlin.Long.fromNumber(radix);\n                var div = this.div(radixLong);\n                var rem = div.multiply(radixLong).subtract(this);\n                return div.toString(radix) + rem.toInt().toString(radix);\n            } else {\n                return '-' + this.negate().toString(radix);\n            }\n    }\n    // Do several (6) digits each time through the loop, so as to\n    // minimize the calls to the very expensive emulated div.\n    var radixToPower = Kotlin.Long.fromNumber(Math.pow(radix, 6));\n    var rem = this;\n    var result = '';\n    while (true) {\n        var remDiv = rem.div(radixToPower);\n        var intval = rem.subtract(remDiv.multiply(radixToPower)).toInt();\n        var digits = intval.toString(radix);\n        rem = remDiv;\n        if (rem.isZero()) {\n            return digits + result;\n        } else {\n            while (digits.length < 6) {\n                digits = '0' + digits;\n            }\n            result = '' + digits + result;\n        }\n    }\n};\n\n/** @return {number} The high 32-bits as a signed value.\n */\nKotlin.Long.prototype.getHighBits = function() {\n    return this.high_;\n};\n\n/** @return {number} The low 32-bits as a signed value.\n */\nKotlin.Long.prototype.getLowBits = function() {\n    return this.low_;\n};\n\n/** @return {number} The low 32-bits as an unsigned value.\n */\nKotlin.Long.prototype.getLowBitsUnsigned = function() {\n    return (this.low_ >= 0) ?\n        this.low_ : Kotlin.Long.TWO_PWR_32_DBL_ + this.low_;\n};\n\n/** @return {number} Returns the number of bits needed to represent the absolute\n * value of this Long.\n */\nKotlin.Long.prototype.getNumBitsAbs = function() {\n    if (this.isNegative()) {\n        if (this.equalsLong(Kotlin.Long.MIN_VALUE))\n            {\n                return 64;\n            } else {\n                return this.negate().getNumBitsAbs();\n            }\n    } else {\n        var val = this.high_ != 0 ? this.high_ : this.low_;\n        for (var bit = 31; bit > 0; bit--) {\n            if ((val & (1 << bit)) != 0) {\n                break;\n            }\n        }\n        return this.high_ != 0 ? bit + 33 : bit + 1;\n    }\n};\n\n/** @return {boolean} Whether this value is zero.\n */\nKotlin.Long.prototype.isZero = function() {\n    return this.high_ == 0 && this.low_ == 0;\n};\n\n/** @return {boolean} Whether this value is negative.\n */\nKotlin.Long.prototype.isNegative = function() {\n    return this.high_ < 0;\n};\n\n/** @return {boolean} Whether this value is odd.\n */\nKotlin.Long.prototype.isOdd = function() {\n    return (this.low_ & 1) == 1;\n};\n\n/**\n * @param {Kotlin.Long} other Long to compare against.\n * @return {boolean} Whether this Long equals the other.\n */\nKotlin.Long.prototype.equalsLong = function(other) {\n    return (this.high_ == other.high_) && (this.low_ == other.low_);\n};\n\n/**\n * @param {Kotlin.Long} other Long to compare against.\n * @return {boolean} Whether this Long equals the other.\n */\nKotlin.Long.prototype.equalsLong = function(other) {\n    return (this.high_ == other.high_) && (this.low_ == other.low_);\n};\n\n/**\n * @param {Kotlin.Long} other Long to compare against.\n * @return {boolean} Whether this Long does not equal the other.\n */\nKotlin.Long.prototype.notEqualsLong = function(other) {\n    return (this.high_ != other.high_) || (this.low_ != other.low_);\n};\n\n/**\n * @param {Kotlin.Long} other Long to compare against.\n * @return {boolean} Whether this Long is less than the other.\n */\nKotlin.Long.prototype.lessThan = function(other) {\n    return this.compare(other) < 0;\n};\n\n/**\n * @param {Kotlin.Long} other Long to compare against.\n * @return {boolean} Whether this Long is less than or equal to the other.\n */\nKotlin.Long.prototype.lessThanOrEqual = function(other) {\n    return this.compare(other) <= 0;\n};\n\n/**\n * @param {Kotlin.Long} other Long to

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compare against.\n * @return {boolean} Whether this Long is greater than the other.\n
*\nKotlin.Long.prototype.greaterThan = function(other) {\n return this.compare(other) > 0;\n};\n\n/>\n *
@param {Kotlin.Long} other Long to compare against.\n * @return {boolean} Whether this Long is greater than or
equal to the other.\n *\nKotlin.Long.prototype.greaterThanOrEqual
= function(other) {\n return this.compare(other) >= 0;\n};\n\n/>\n * Compares this Long with the given one.\n *
@param {Kotlin.Long} other Long to compare against.\n * @return {number} 0 if they are the same, 1 if the this is
greater, and -1\n * if the given one is greater.\n *\nKotlin.Long.prototype.compare = function(other) {\n if
(this.equalsLong(other)) {\n return 0;\n }\n\n var thisNeg = this.isNegative();\n var otherNeg =
other.isNegative();\n if (thisNeg && !otherNeg) {\n return -1;\n }\n if (!thisNeg && otherNeg) {\n return 1;\n
}\n\n // at this point, the signs are the same, so subtraction will not overflow\n if (this.subtract(other).isNegative())
{\n return -1;\n } else {\n return 1;\n }\n};\n\n/>\n * @return {!Kotlin.Long} The negation of this value.
*\nKotlin.Long.prototype.negate = function() {\n if (this.equalsLong(Kotlin.Long.MIN_VALUE)) {\n return
Kotlin.Long.MIN_VALUE;\n } else {\n return this.not().add(Kotlin.Long.ONE);\n
}\n};\n\n/>\n * Returns the sum of this and the given Long.\n * @param {Kotlin.Long} other Long to add to
this one.\n * @return {!Kotlin.Long} The sum of this and the given Long.\n *\nKotlin.Long.prototype.add =
function(other) {\n // Divide each number into 4 chunks of 16 bits, and then sum the chunks.\n\n var a48 =
this.high_ >>> 16;\n var a32 = this.high_ & 0xFFFF;\n var a16 = this.low_ >>> 16;\n var a00 = this.low_ &
0xFFFF;\n\n var b48 = other.high_ >>> 16;\n var b32 = other.high_ & 0xFFFF;\n var b16 = other.low_ >>> 16;\n
var b00 = other.low_ & 0xFFFF;\n\n var c48 = 0, c32 = 0, c16 = 0, c00 = 0;\n c00 += a00 + b00;\n c16 += c00
>>> 16;\n c00 &= 0xFFFF;\n c16 += a16 + b16;\n c32 += c16 >>> 16;\n c16 &= 0xFFFF;\n c32 += a32 + b32;\n
c48 += c32 >>> 16;\n c32 &= 0xFFFF;\n c48 += a48 + b48;\n c48 &= 0xFFFF;\n return
Kotlin.Long.fromBits((c16 << 16) | c00, (c48 << 16) | c32);\n};\n\n/>\n * Returns the difference of this and the
given Long.\n * @param {Kotlin.Long} other Long to subtract from this.\n * @return {!Kotlin.Long} The
difference of this and the given Long.\n *\nKotlin.Long.prototype.subtract = function(other) {\n return
this.add(other.negate());\n};\n\n/>\n * Returns the product of this and the given long.\n * @param {Kotlin.Long}
other Long to multiply with this.\n * @return {!Kotlin.Long} The product of this and the other.\n
*\nKotlin.Long.prototype.multiply = function(other) {\n if (this.isZero()) {\n return Kotlin.Long.ZERO;\n } else
if (other.isZero()) {\n return Kotlin.Long.ZERO;\n }\n\n if (this.equalsLong(Kotlin.Long.MIN_VALUE)) {\n
return other.isOdd() ? Kotlin.Long.MIN_VALUE : Kotlin.Long.ZERO;\n } else if
(other.equalsLong(Kotlin.Long.MIN_VALUE)) {\n return this.isOdd() ? Kotlin.Long.MIN_VALUE :
Kotlin.Long.ZERO;\n }\n\n if (this.isNegative()) {\n if (other.isNegative()) {\n return
this.negate().multiply(other.negate());\n } else {\n return this.negate().multiply(other).negate();\n
}\n } else if (other.isNegative()) {\n return this.multiply(other.negate()).negate();\n }\n\n // If both longs are
small, use float multiplication\n if (this.lessThan(Kotlin.Long.TWO_PWR_24_) &&\n
other.lessThan(Kotlin.Long.TWO_PWR_24_)) {\n return Kotlin.Long.fromNumber(this.toNumber() *
other.toNumber());\n }\n\n // Divide each long into 4 chunks of 16 bits, and then add up 4x4 products.\n // We can
skip products that would overflow.\n\n var a48 = this.high_ >>> 16;\n var a32 = this.high_ & 0xFFFF;\n var a16 =
this.low_ >>> 16;\n var a00 = this.low_ & 0xFFFF;\n\n var b48 = other.high_ >>> 16;\n var b32 = other.high_ &
0xFFFF;\n var b16 = other.low_ >>> 16;\n var b00 = other.low_ & 0xFFFF;\n\n var c48 = 0, c32 = 0, c16 = 0, c00
= 0;\n c00 += a00 * b00;\n c16 += c00 >>> 16;\n c00 &= 0xFFFF;\n c16 += a16 * b00;\n c32 += c16 >>> 16;\n
c16 &= 0xFFFF;\n c16 += a00 * b16;\n c32 += c16 >>> 16;\n c16 &= 0xFFFF;\n c32 +=
a32 * b00;\n c48 += c32 >>> 16;\n c32 &= 0xFFFF;\n c32 += a16 * b16;\n c48 += c32 >>> 16;\n c32 &=
0xFFFF;\n c32 += a00 * b32;\n c48 += c32 >>> 16;\n c32 &= 0xFFFF;\n c48 += a48 * b00 + a32 * b16 + a16 *
b32 + a00 * b48;\n c48 &= 0xFFFF;\n return Kotlin.Long.fromBits((c16 << 16) | c00, (c48 << 16) |
c32);\n};\n\n/>\n * Returns this Long divided by the given one.\n * @param {Kotlin.Long} other Long by which
to divide.\n * @return {!Kotlin.Long} This Long divided by the given one.\n *\nKotlin.Long.prototype.div =
function(other) {\n if (other.isZero()) {\n throw Error('division by zero');\n } else if (this.isZero()) {\n return
Kotlin.Long.ZERO;\n }\n\n if (this.equalsLong(Kotlin.Long.MIN_VALUE)) {\n if

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(other.equalsLong(Kotlin.Long.ONE) || other.equalsLong(Kotlin.Long.NEG_ONE)) {\n    return
Kotlin.Long.MIN_VALUE; // recall that -MIN_VALUE == MIN_VALUE\n    } else if
(other.equalsLong(Kotlin.Long.MIN_VALUE)) {\n    return Kotlin.Long.ONE;\n
    } else {\n    // At this point, we have |other| >= 2, so |this/other| < |MIN_VALUE|.\n    var halfThis =
this.shiftRight(1);\n    var approx = halfThis.div(other).shiftLeft(1);\n    if
(approx.equalsLong(Kotlin.Long.ZERO)) {\n    return other.isNegative() ? Kotlin.Long.ONE :
Kotlin.Long.NEG_ONE;\n    } else {\n    var rem = this.subtract(other.multiply(approx));\n    var result =
approx.add(rem.div(other));\n    return result;\n    }\n    } else if
(other.equalsLong(Kotlin.Long.MIN_VALUE)) {\n    return Kotlin.Long.ZERO;\n    }\n    if (this.isNegative()) {\n
if (other.isNegative()) {\n    return this.negate().div(other.negate());\n    } else {\n    return
this.negate().div(other.negate());\n    }\n    } else if (other.isNegative()) {\n    return
this.div(other.negate()).negate();\n    }\n    // Repeat the following until the remainder is less than other: find a\n //
floating-point that approximates remainder / other *from below*, add this\n // into
the result, and subtract it from the remainder. It is critical that\n // the approximate value is less than or equal to the
real value so that the\n // remainder never becomes negative.\n    var res = Kotlin.Long.ZERO;\n    var rem = this;\n
while (rem.greaterThanOrEqual(other)) {\n    // Approximate the result of division. This may be a little greater or\n
// smaller than the actual value.\n    var approx = Math.max(1, Math.floor(rem.toNumber() / other.toNumber()));\n
// We will tweak the approximate result by changing it in the 48-th digit or\n // the smallest non-fractional digit,
whichever is larger.\n    var log2 = Math.ceil(Math.log(approx) / Math.LN2);\n    var delta = (log2 <= 48) ? 1 :
Math.pow(2, log2 - 48);\n    // Decrease the approximation until it is smaller than the remainder. Note\n // that if
it is too large, the product overflows and is negative.\n    var approxRes = Kotlin.Long.fromNumber(approx);\n
var approxRem = approxRes.multiply(other);\n
    while (approxRem.isNegative() || approxRem.greaterThan(rem)) {\n    approx -= delta;\n    approxRes =
Kotlin.Long.fromNumber(approx);\n    approxRem = approxRes.multiply(other);\n    }\n    // We know the
answer can't be zero... and actually, zero would cause\n // infinite recursion since we would make no progress.\n
if (approxRes.isZero()) {\n    approxRes = Kotlin.Long.ONE;\n    }\n    res = res.add(approxRes);\n    rem =
rem.subtract(approxRem);\n    }\n    return res;\n    };\n\n\n**\n * Returns this Long modulo the given one.\n * @param
{Kotlin.Long} other Long by which to mod.\n * @return {!Kotlin.Long} This Long modulo the given one.\n
*\nKotlin.Long.prototype.modulo = function(other) {\n    return
this.subtract(this.div(other).multiply(other));\n    };\n\n\n** @return {!Kotlin.Long} The bitwise-NOT of this value.
*\nKotlin.Long.prototype.not = function() {\n    return Kotlin.Long.fromBits(~this.low_, ~this.high_);\n    };\n\n\n**\n * Returns the bitwise-AND of this Long and
the given one.\n * @param {Kotlin.Long} other The Long with which to AND.\n * @return {!Kotlin.Long} The
bitwise-AND of this and the other.\n\nKotlin.Long.prototype.and = function(other) {\n    return
Kotlin.Long.fromBits(this.low_ & other.low_,\n                    this.high_ & other.high_);\n    };\n\n\n**\n * Returns the bitwise-OR of this Long and the given one.\n * @param {Kotlin.Long} other The Long with which to
OR.\n * @return {!Kotlin.Long} The bitwise-OR of this and the other.\n\nKotlin.Long.prototype.or =
function(other) {\n    return Kotlin.Long.fromBits(this.low_ | other.low_,\n                    this.high_ |
other.high_);\n    };\n\n\n**\n * Returns the bitwise-XOR of this Long and the given one.\n * @param {Kotlin.Long}
other The Long with which to XOR.\n * @return {!Kotlin.Long} The bitwise-XOR of this and the other.\n
*\nKotlin.Long.prototype.xor = function(other) {\n    return Kotlin.Long.fromBits(this.low_ ^ other.low_,\n
                    this.high_ ^ other.high_);\n    };\n\n\n**\n * Returns this Long with bits shifted to the left by the given
amount.\n * @param {number} numBits The number of bits by which to shift.\n * @return {!Kotlin.Long} This
shifted to the left by the given amount.\n\nKotlin.Long.prototype.shiftLeft = function(numBits) {\n    numBits &=
63;\n    if (numBits == 0) {\n    return this;\n    } else {\n    var low = this.low_;\n    if (numBits < 32) {\n    var high =
this.high_;\n    return Kotlin.Long.fromBits((low << numBits, (high << numBits) | (low >>> (32 -
numBits)));\n    } else {\n    return Kotlin.Long.fromBits(0, low << (numBits - 32));\n    }\n    }\n    };\n\n\n**\n *

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Returns this Long with bits shifted to the right by the given amount.
 * @param {number} numBits The number of bits by which to shift.
 * @return {!Kotlin.Long} This shifted to the right by the given amount.
*/
Kotlin.Long.prototype.shiftRight = function(numBits) {
    numBits &= 63;
    if (numBits == 0) {
        return this;
    } else {
        var high = this.high_;
        if (numBits < 32) {
            var low = this.low_;
            return Kotlin.Long.fromBits(
                (low >>> numBits) | (high << (32 - numBits)),
                high >> numBits);
        } else {
            return Kotlin.Long.fromBits(
                high >> (numBits - 32),
                high >= 0 ? 0 : -1);
        }
    }
};

Returns this Long with bits shifted to the right by the given amount, with zeros placed into the new leading bits.
 * @param {number} numBits The number of bits by which to shift.
 * @return {!Kotlin.Long} This shifted to the right by the given amount, with zeros placed into the new leading bits.
*/
Kotlin.Long.prototype.shiftRightUnsigned = function(numBits) {
    numBits &= 63;
    if (numBits == 0) {
        return this;
    } else {
        var high = this.high_;
        if (numBits < 32) {
            var low = this.low_;
            return Kotlin.Long.fromBits(
                (low >>> numBits) | (high << (32 - numBits)),
                high >>> numBits);
        } else if (numBits == 32) {
            return Kotlin.Long.fromBits(high, 0);
        } else {
            return Kotlin.Long.fromBits(high >>> (numBits - 32), 0);
        }
    }
};

// Support for Kotlin
Kotlin.Long.prototype.equals = function (other) {
    return other instanceof Kotlin.Long && this.equalsLong(other);
};

Kotlin.Long.prototype.compareTo_11rb$ = Kotlin.Long.prototype.compare;
Kotlin.Long.prototype.inc = function() {
    return this.add(Kotlin.Long.ONE);
};

Kotlin.Long.prototype.dec = function() {
    return this.add(Kotlin.Long.NEG_ONE);
};

Kotlin.Long.prototype.valueOf = function() {
    return this.toNumber();
};

Kotlin.Long.prototype.unaryPlus = function() {
    return this;
};

Kotlin.Long.prototype.unaryMinus = Kotlin.Long.prototype.negate;
Kotlin.Long.prototype.inv = Kotlin.Long.prototype.not;
Kotlin.Long.prototype.rangeTo = function (other) {
    return new Kotlin.kotlin.ranges.LongRange(this, other);
};

/*
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 * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.
 */
Kotlin.defineModule = function (id, declaration) {
};

Kotlin.defineInlineFunction = function(tag, fun) {
    return fun;
};

Kotlin.wrapFunction = function(fun) {
    var f = function() {
        f = fun();
        return f.apply(this, arguments);
    };
    return function() {
        return f.apply(this, arguments);
    };
};

Kotlin.isTypeOf = function(type) {
    return function (object) {
        return typeof object === type;
    };
};

Kotlin.isInstanceOf = function (klass) {
    return function (object) {
        return Kotlin.isType(object, klass);
    };
};

Kotlin.orNull = function (fn) {
    return function (object) {
        return object == null || fn(object);
    };
};

Kotlin.andPredicate = function (a, b) {
    return function (object) {
        return a(object) && b(object);
    };
};

Kotlin.kotlinModuleMetadata = function (abiVersion, moduleName, data) {
};

Kotlin.suspendCall = function(value) {
    return value;
};

Kotlin.coroutineResult = function(qualifier) {
    throw MarkerError();
};

Kotlin.coroutineController = function(qualifier) {
    throw MarkerError();
};

Kotlin.coroutineReceiver = function(qualifier) {
    throw MarkerError();
};

Kotlin.setCoroutineResult = function(value, qualifier) {
    throw MarkerError();
};

Kotlin.getReifiedTypeParameterKType = function(typeParameter) {
    throw MarkerError();
};

function throwMarkerError() {
    throw new Error(
        "\"This marker function should never be called. \" +
        "\"Looks like compiler did not eliminate it properly. \" +
        "\"Please, report an issue if you caught this exception.\"");
};

Kotlin.getFunctionById = function(id, defaultValue) {
    return function() {
        return defaultValue;
    };
};

/*
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 * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.
 */
Kotlin.compareTo = function (a, b) {
    var typeA = typeof a;
    if (typeA === "number") {
        if (typeof b === "number") {
            return Kotlin.doubleCompareTo(a, b);
        }
        return Kotlin.primitiveCompareTo(a, b);
    }
    if (typeA === "string" || typeA === "boolean") {
        return Kotlin.primitiveCompareTo(a, b);
    }
    return

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a.compareTo_11rb$(b);};\n\nKotlin.primitiveCompareTo = function (a, b) {\n  return a < b ? -1 : a > b ? 1 :
0;};\n\nKotlin.doubleCompareTo = function (a, b) {\n  if (a < b) return -1;\n  if (a > b) return 1;\n  if (a ===
b) {\n    if (a !== 0) return 0;\n    var ia = 1 / a;\n    return ia === 1 / b ? 0 : (ia < 0 ? -1 : 1);\n  };\n\n  return a !== a ? (b !== b ? 0 : 1) : -1;\n};\n\nKotlin.charInc =
function (value) {\n  return Kotlin.toChar(value+1);};\n\nKotlin.charDec = function (value) {\n  return
Kotlin.toChar(value-1);};\n\nKotlin.imul = Math.imul || imul;\n\nKotlin.imulEmulated = imul;\n\nfunction imul(a,
b) {\n  return ((a & 0xffff0000) * (b & 0xffff) + (a & 0xffff) * (b | 0)) | 0;\n}\n\n(function() {\n  var buf = new
ArrayBuffer(8);\n  var bufFloat64 = new Float64Array(buf);\n  var bufFloat32 = new Float32Array(buf);\n  var
bufInt32 = new Int32Array(buf);\n  var lowIndex = 0;\n  var highIndex = 1;\n\n  bufFloat64[0] = -1; //
bff00000_00000000\n  if (bufInt32[lowIndex] !== 0) {\n    lowIndex = 1;\n    highIndex = 0;\n  }\n\n  Kotlin.doubleToBits = function(value) {\n    return Kotlin.doubleToRawBits(isNaN(value) ? NaN : value);\n
};\n\n  Kotlin.doubleToRawBits = function(value) {\n    bufFloat64[0]
= value;\n    return Kotlin.Long.fromBits(bufInt32[lowIndex], bufInt32[highIndex]);\n  };\n\n  Kotlin.doubleFromBits = function(value) {\n    bufInt32[lowIndex] = value.low_;\n    bufInt32[highIndex] =
value.high_;\n    return bufFloat64[0];\n  };\n\n  Kotlin.floatToBits = function(value) {\n  return
Kotlin.floatToRawBits(isNaN(value) ? NaN : value);\n  };\n\n  Kotlin.floatToRawBits = function(value) {\n
bufFloat32[0] = value;\n  return bufInt32[0];\n  };\n\n  Kotlin.floatFromBits = function(value) {\n
bufInt32[0] = value;\n  return bufFloat32[0];\n  };\n\n  // returns zero value for number with positive sign bit
and non-zero value for number with negative sign bit.\n  Kotlin.doubleSignBit = function(value) {\n
bufFloat64[0] = value;\n  return bufInt32[highIndex] & 0x80000000;\n  };\n\n  Kotlin.numberHashCode =
function(obj) {\n    if ((obj | 0) === obj) {\n      return obj | 0;\n    }
\n    else {\n      bufFloat64[0] = obj;\n      return (bufInt32[highIndex] * 31 | 0) + bufInt32[lowIndex] |
0;\n    }\n  };\n\n  Kotlin.ensureNotNull = function(x) {\n  return x != null ? x :
Kotlin.throwNPE();};};\n\n"/**\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\nif (typeof String.prototype.startsWith === "undefined") {\n
Object.defineProperty(String.prototype, "startsWith", {\n  value: function (searchString, position) {\n
position = position || 0;\n  return this.lastIndexOf(searchString, position) === position;\n  }\n});\n\nif
(typeof String.prototype.endsWith === "undefined") {\n  Object.defineProperty(String.prototype, "endsWith",
{\n  value: function (searchString, position) {\n    var subjectString = this.toString();\n    if (position ===
undefined || position > subjectString.length) {\n      position = subjectString.length;\n    }\n    position -=
searchString.length;\n    var lastIndex = subjectString.indexOf(searchString,
position);\n    return lastIndex !== -1 && lastIndex === position;\n  }\n});\n\n// ES6 Math polyfills\nif
(typeof Math.sign === "undefined") {\n  Math.sign = function(x) {\n    x = +x; // convert to a number\n    if
(x === 0 || isNaN(x)) {\n      return Number(x);\n    }\n    return x > 0 ? 1 : -1;\n  };\n\nif (typeof
Math.trunc === "undefined") {\n  Math.trunc = function(x) {\n    if (isNaN(x)) {\n      return NaN;\n    }
\n    if (x > 0) {\n      return Math.floor(x);\n    }\n    return Math.ceil(x);\n  };\n\n\n(function() {\n
var epsilon = 2.220446049250313E-16;\n  var taylor_2_bound = Math.sqrt(epsilon);\n  var taylor_n_bound =
Math.sqrt(taylor_2_bound);\n\n  var upper_taylor_2_bound = 1/taylor_2_bound;\n  var upper_taylor_n_bound =
1/taylor_n_bound;\n\n  if (typeof Math.sinh === "undefined") {\n    Math.sinh = function(x) {\n      if
(Math.abs(x) < taylor_n_bound) {\n        var result = x;\n        if (Math.abs(x) > taylor_2_bound) {\n
result += (x * x * x) / 6;\n        }\n        return result;\n      } else {\n        var y = Math.exp(x);\n
var y1 = 1 / y;\n        if (!isFinite(y)) return Math.exp(x - Math.LN2);\n        if (!isFinite(y1)) return
-Math.exp(-x - Math.LN2);\n        return (y - y1) / 2;\n      }\n    };\n\n  if (typeof Math.cosh ===
"undefined") {\n    Math.cosh
= function(x) {\n      var y = Math.exp(x);\n      var y1 = 1 / y;\n      if (!isFinite(y) || !isFinite(y1))
return Math.exp(Math.abs(x) - Math.LN2);\n      return (y + y1) / 2;\n    };\n\n  if (typeof Math.tanh ===
"undefined") {\n    Math.tanh
= function(x) {\n      var y = Math.exp(x);\n      var y1 = 1 / y;\n      if (!isFinite(y) || !isFinite(y1))
return Math.exp(Math.abs(x) - Math.LN2);\n      return (y - y1) / (y + y1);\n    };\n\n  if (typeof Math.asinh
=== "undefined") {\n    Math.asinh
= function(x) {\n      if (Math.abs(x) < taylor_n_bound) {\n        return x;\n      }\n      if (Math.abs(x)
> taylor_2_bound) {\n        return Math.log(x + Math.sqrt(x * x + 1));\n      }\n      return Math.log(1 +
x + Math.sqrt(1 + x * x));\n    };\n\n  if (typeof Math.acosh === "undefined") {\n    Math.acosh
= function(x) {\n      if (Math.abs(x) < taylor_n_bound) {\n        return NaN;\n      }\n      if (Math.abs(x)
> taylor_2_bound) {\n        return Math.log(x + Math.sqrt(x * x - 1));\n      }\n      return Math.log(x +
Math.sqrt(x * x - 1) + 1);\n    };\n\n  if (typeof Math.atanh === "undefined") {\n    Math.atanh
= function(x) {\n      if (Math.abs(x) < taylor_n_bound) {\n        return x;\n      }\n      if (Math.abs(x)
> taylor_2_bound) {\n        return Math.log((1 + x) / (1 - x));\n      }\n      return (x + x * x * x) /
(1 - x * x);\n    };\n\n  if (typeof Math.exp2 === "undefined") {\n    Math.exp2
= function(x) {\n      return Math.exp(x * Math.LN2);\n    };\n\n  if (typeof Math.log2 === "undefined") {\n
Math.log2
= function(x) {\n      return Math.log(x) / Math.LN2;\n    };\n\n  if (typeof Math.exp10 === "undefined") {\n
Math.exp10
= function(x) {\n      return Math.exp(x * Math.LN10);\n    };\n\n  if (typeof Math.log10 === "undefined") {\n
Math.log10
= function(x) {\n      return Math.log(x) / Math.LN10;\n    };\n\n  if (typeof Math.exp256 === "undefined") {\n
Math.exp256
= function(x) {\n      return Math.exp(x * Math.LN256);\n    };\n\n  if (typeof Math.log256 === "undefined") {\n
Math.log256
= function(x) {\n      return Math.log(x) / Math.LN256;\n    };\n\n  if (typeof Math.exp128 === "undefined") {\n
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= function(x) {\n      return Math.exp(x);\n    };\n\n  if (typeof Math.logNeg9223372036854775808 === "undefined") {\n    Math.logNeg9223372036854775808
= function(x) {\n      return Math.log(x);\n    };\n\n  if (typeof Math.expNeg18446744073709551616 === "undefined") {\n    Math.expNeg18446744073709551616
= function(x) {\n      return Math.exp(x);\n    };\n\n  if (typeof Math.logNeg18446744073709551616 === "undefined") {\n    Math.logNeg18446744073709551616
= function(x) {\n      return Math.log(x);\n    };\n\n  if (typeof Math.expNeg36893488147419103232 === "undefined") {\n    Math.expNeg36893488147419103232
= function(x) {\n      return Math.exp(x);\n    };\n\n  if (typeof Math.logNeg36893488147419103232 === "undefined") {\n    Math.logNeg36893488147419103232
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= function(x) {\n      return Math.log(x);\n    };\n\n  if (typeof Math.expNeg147573952589676412928 === "undefined") {\n    Math.expNeg147573952589676412928
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= function(x) {\n      return Math.log(x);\n    };\n\n  if (typeof Math.expNeg295147905179352825856 === "undefined") {\n    Math.expNeg295147905179352825856
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= function(x) {\n      return Math.log(x);\n    };\n\n  if (typeof Math.expNeg590295810358705651712 === "undefined") {\n    Math.expNeg590295810358705651712
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= function(x) {\n      return Math.log(x);\n    };\n\n  if (typeof Math.expNeg1180591620717411303424 === "undefined") {\n    Math.expNeg1180591620717411303424
= function(x) {\n      return Math.exp(x);\n    };\n\n  if (typeof Math.logNeg1180591620717411303424 === "undefined") {\n    Math.logNeg1180591620717411303424
= function(x) {\n      return Math.log(x);\n    };\n\n  if (typeof Math.expNeg2361183241434822606848 === "undefined") {\n    Math.expNeg2361183241434822606848
= function(x) {\n      return Math.exp(x);\n    };\n\n  if (typeof Math.logNeg2361183241434822606848 === "undefined") {\n    Math.logNeg2361183241434822606848
= function(x) {\n      return Math.log(x);\n    };\n\n  if (typeof Math.expNeg4722366482869645213696 === "undefined") {\n    Math.expNeg4722366482869645213696
= function(x) {\n      return Math.exp(x);\n    };\n\n  if (typeof Math.logNeg4722366482869645213696 === "undefined") {\n    Math.logNeg4722366482869645213696
= function(x) {\n      return Math.log(x);\n    };\n\n  if (typeof Math.expNeg9444732965739290427392 === "undefined") {\n    Math.expNeg9444732965739290427392
= function(x) {\n      return Math.exp(x);\n    };\n\n  if (typeof Math.logNeg9444732965739290427392 === "undefined") {\n    Math.logNeg9444732965739290427392
= function(x) {\n      return Math.log(x);\n    };\n\n  if (typeof Math.expNeg18889465931478580854784 === "undefined") {\n    Math.expNeg18889465931478580854784
= function(x) {\n      return Math.exp(x);\n    };\n\n  if (typeof Math.logNeg18889465931478580854784 === "undefined") {\n    Math.logNeg18889465931478580854784
= function(x) {\n      return Math.log(x);\n    };\n\n  if (typeof Math.expNeg37778931862957161709568 === "undefined") {\n    Math.expNeg37778931862957161709568
= function(x) {\n      return Math.exp(x);\n    };\n\n  if (typeof Math.logNeg37778931862957161709568 === "undefined") {\n    Math.logNeg37778931862957161709568
= function(x) {\n      return Math.log(x);\n    };\n\n  if (typeof Math.expNeg75557863725914323419136 === "undefined") {\n    Math.expNeg75557863725914323419136

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US/docs/Web/JavaScript/Reference/Global_Objects/Array/fill#Polyfill\n  Object.defineProperty(Array.prototype,
'fill', {\n    value: function (value) {\n\n      // Steps 1-2.\n      if (this == null) {\n        throw new
TypeError('this is null or not defined');\n      }\n      var O = Object(this);\n      // Steps 3-5.\n      var len = O.length >>> 0;\n      // Steps 6-7.\n      var start = arguments[1];\n      var relativeStart = start
>> 0;\n      // Step 8.\n      var k = relativeStart < 0 ?\n        Math.max(len + relativeStart, 0) :\n        Math.min(relativeStart, len);\n      // Steps 9-10.\n      var end = arguments[2];\n      var
relativeEnd = end === undefined ?\n        len : end >> 0;\n      // Step 11.\n      var finalValue
= relativeEnd < 0 ?\n        Math.max(len + relativeEnd, 0) :\n        Math.min(relativeEnd,
len);\n      // Step 12.\n      while (k < finalValue)
{\n        O[k] = value;\n        k++;\n      }\n      // Step 13.\n      return O;\n    }
});\n\n(function() {\n  function normalizeOffset(offset, length) {\n    if (offset < 0) return Math.max(0, offset
+ length);\n    return Math.min(offset, length);\n  }\n  function typedArraySlice(begin, end) {\n    if (typeof
end === \"undefined\")\n      end = this.length;\n    begin = normalizeOffset(begin || 0, this.length);\n    end = Math.max(begin, normalizeOffset(end, this.length));\n    return new
this.constructor(this.subarray(begin, end));\n  }\n  var arrays = [Int8Array, Int16Array, Uint16Array,
Int32Array, Float32Array, Float64Array];\n  for (var i = 0; i < arrays.length; ++i) {\n    var TypedArray =
arrays[i];\n    if (typeof TypedArray.prototype.fill === \"undefined\") {\n      Object.defineProperty(TypedArray.prototype, 'fill', {\n        value: Array.prototype.fill\n      });\n    }\n    if (typeof TypedArray.prototype.slice === \"undefined\") {\n      Object.defineProperty(TypedArray.prototype, 'slice', {\n        value: typedArraySlice\n      });\n    }\n  }\n  // Patch apply to work with TypedArrays if needed.\n  try {\n    (function() {}).apply(null, new
Int32Array(0))\n  } catch (e) {\n    var apply = Function.prototype.apply;\n    Object.defineProperty(Function.prototype, 'apply', {\n      value: function(self, array) {\n        return
apply.call(this, self, [].slice.call(array));\n      }\n    });\n  }\n  // Patch map to work with TypedArrays if
needed.\n  for (var i = 0; i < arrays.length; ++i) {\n    var TypedArray = arrays[i];\n    if (typeof
TypedArray.prototype.map === \"undefined\") {\n      Object.defineProperty(TypedArray.prototype, 'map', {\n        value: function(callback, self) {\n          return [].slice.call(this).map(callback, self);\n        }\n      });\n    }\n  }\n  // Patch sort to work
with TypedArrays if needed.\n  // TODO: consider to remove following function and replace it with
`Kotlin.doubleCompareTo` (see misc.js)\n  var totalOrderComparator = function (a, b) {\n    if (a < b) return -
1;\n    if (a > b) return 1;\n    if (a === b) {\n      if (a !== 0) return 0;\n      var ia = 1 / a;\n      return ia === 1 / b ? 0 : (ia < 0 ? -1 : 1);\n    }\n    return a !== a ? (b !== b ? 0 : 1) : -1\n  };\n  for (var i =
0; i < arrays.length; ++i) {\n    var TypedArray = arrays[i];\n    if (typeof TypedArray.prototype.sort ===
\"undefined\") {\n      Object.defineProperty(TypedArray.prototype, 'sort', {\n        value:
function(compareFunction) {\n          return Array.prototype.sort.call(this, compareFunction ||
totalOrderComparator);\n        }\n      });\n    }\n  }\n  // Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors. Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n  Kotlin.Kind = {\n    CLASS: \"class\",\n    INTERFACE: \"interface\",\n    OBJECT: \"object\"\n  };\n  Kotlin.callGetter = function (thisObject, klass, propertyName) {\n    var
propertyDescriptor = Object.getOwnPropertyDescriptor(klass, propertyName);\n    if (propertyDescriptor != null
&& propertyDescriptor.get != null) {\n      return propertyDescriptor.get.call(thisObject);\n    }\n    propertyDescriptor = Object.getOwnPropertyDescriptor(thisObject, propertyName);\n    if (propertyDescriptor !=
null && \"value\" in propertyDescriptor) {\n      return thisObject[propertyName];\n    }\n    return
Kotlin.callGetter(thisObject, Object.getPrototypeOf(klass), propertyName);\n  };\n  Kotlin.callSetter = function
(thisObject, klass,
propertyName, value) {\n    var propertyDescriptor = Object.getOwnPropertyDescriptor(klass, propertyName);\n    if (propertyDescriptor != null && propertyDescriptor.set != null) {\n      propertyDescriptor.set.call(thisObject,

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value);\n    return;\n } \n\n propertyDescriptor = Object.getOwnPropertyDescriptor(thisObject,
propertyName);\n if (propertyDescriptor != null && \"value\" in propertyDescriptor) {\n
thisObject[propertyName] = value;\n    return\n } \n\n Kotlin.callSetter(thisObject,
Object.getPrototypeOf(klass), propertyName, value);\n};\n\nfunction isInheritanceFromInterface(ctor, iface) {\n if
(ctor === iface) return true;\n\n var metadata = ctor.$metadata$;\n if (metadata != null) {\n    var interfaces =
metadata.interfaces;\n    for (var i = 0; i < interfaces.length; i++) {\n        if
(isInheritanceFromInterface(interfaces[i], iface)) {\n            return true;\n        }\n    }\n\n } \n\n var
superPrototype
= ctor.prototype != null ? Object.getPrototypeOf(ctor.prototype) : null;\n    var superConstructor = superPrototype
!= null ? superPrototype.constructor : null;\n    return superConstructor != null &&
isInheritanceFromInterface(superConstructor, iface);\n}\n\n/**\n * \n * @param {*} object\n * @param
{Function|Object} klass\n * @returns {Boolean}\n */\nKotlin.isType = function (object, klass) {\n if (klass ===
Object) {\n    switch (typeof object) {\n        case \"string\":\n            case \"number\":\n            case
\"boolean\":\n            case \"function\":\n                return true;\n            default:\n                return object instanceof
Object;\n    }\n\n } \n\n if (object == null || klass == null || (typeof object !== 'object' && typeof object !==
'function')) {\n    return false;\n }\n\n if (typeof klass === \"function\" && object instanceof klass) {\n
return true;\n }\n\n var proto = Object.getPrototypeOf(klass);\n
var constructor = proto != null ? proto.constructor : null;\n if (constructor != null && \"$metadata$\" in
constructor) {\n    var metadata = constructor.$metadata$;\n    if (metadata.kind === Kotlin.Kind.OBJECT) {\n
return object === klass;\n    }\n\n } \n\n var klassMetadata = klass.$metadata$;\n\n // In WebKit
(JavaScriptCore) for some interfaces from DOM typeof returns \"object\", nevertheless they can be used in RHS of
instanceof\n if (klassMetadata == null) {\n    return object instanceof klass;\n }\n\n if (klassMetadata.kind
=== Kotlin.Kind.INTERFACE && object.constructor != null) {\n    return
isInheritanceFromInterface(object.constructor, klass);\n }\n\n return false;\n};\n\nKotlin.isNumber = function (a)
{\n    return typeof a === \"number\" || a instanceof Kotlin.Long;\n};\n\nKotlin.isChar = function (value) {\n    return
value instanceof Kotlin.BoxedChar;\n};\n\nKotlin.isComparable = function (value) {\n    var type = typeof
value;\n\n    return type === \"string\" ||\n        type === \"boolean\" ||\n        Kotlin.isNumber(value) ||\n        Kotlin.isType(value, Kotlin.kotlin.Comparable);\n};\n\nKotlin.isCharSequence = function (value) {\n    return
typeof value === \"string\" || Kotlin.isType(value, Kotlin.kotlin.CharSequence);\n};\n\n/*\n * Copyright 2010-2020
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// a package is omitted to get
declarations directly under the module\n\n@PublishedApi\ninternal fun <T> Array(size: Int):
Array<T>\n\n@JsName(\"newArray\")\nfun <T> newArray(size: Int, initialValue: T) = fillArrayVal(Array<T>(size),
initialValue)\n\n@JsName(\"newArrayF\")\ninline fun <T> arrayWithFun(size: Int, init: (Int) -> T) =
fillArrayFun(Array<T>(size), init)\n\n@JsName(\"fillArray\")\ninline fun <T> fillArrayFun(array: Array<T>, init:
(Int)
-> T): Array<T> {\n    for (i in 0..array.size - 1) {\n        array[i] = init(i)\n    }\n    return
array\n}\n\n@JsName(\"booleanArray\")\nfun booleanArray(size: Int, init: dynamic): Array<Boolean> {\n    val
result: dynamic = Array<Boolean>(size)\n    result.`$type$` = \"BooleanArray\"\n    return when (init) {\n        null,
true -> fillArrayVal(result, false)\n        false -> result\n        else -> fillArrayFun<Boolean>(result, init)\n
}\n\n}\n\n@JsName(\"booleanArrayF\")\ninline fun booleanArrayWithFun(size: Int, init: (Int) -> Boolean):
Array<Boolean> = fillArrayFun(booleanArray(size, false),
init)\n\n@JsName(\"charArray\")\n@Suppress(\"UNUSED_PARAMETER\")\nfun charArray(size: Int, init:
dynamic): Array<Char> {\n    val result = js(\"new Uint16Array(size)\")\n    result.`$type$` = \"CharArray\"\n    return when (init) {\n        null, true, false -> result // For consistency\n        else -> fillArrayFun<Char>(result,
init)\n    }\n\n }\n\n}\n\n@JsName(\"charArrayF\")\ninline fun charArrayWithFun(size:
Int, init: (Int) -> Char): Array<Char> {\n    val array = charArray(size, null)\n    for (i in 0..array.size - 1) {\n
@Suppress(\"UNUSED_VARIABLE\") // used in js block\n        val value = init(i)\n        js(\"array[i] = value;\")\n    }\n}

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}n return array\n}\n\n@jsName("untypedCharArrayF")\ninline fun untypedCharArrayWithFun(size: Int, init:
(Int) -> Char): Array<Char> {\n val array = Array<Char>(size)\n for (i in 0..array.size - 1) {\n
@Suppress("UNUSED_VARIABLE") // used in js block\n val value = init(i)\n js("array[i] = value;")\n
}\n return array\n}\n\n@jsName("longArray")\nfun longArray(size: Int, init: dynamic): Array<Long> {\n val
result: dynamic = Array<Long>(size)\n result.`$type$` = "LongArray"\n return when (init) {\n null, true ->
fillArrayVal(result, 0L)\n false -> result\n else -> fillArrayFun<Long>(result, init)\n
}\n}\n\n@jsName("longArrayF")\ninline fun longArrayWithFun(size:
Int, init: (Int) -> Long): Array<Long> = fillArrayFun(longArray(size, false), init)\n\nprivate fun <T>
fillArrayVal(array: Array<T>, initialValue: T): Array<T> {\n for (i in 0..array.size - 1) {\n array[i] = initialValue\n
}\n return array\n}"}\n\n/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin\n\npublic class Enum<T : Enum<T>> : Comparable<Enum<T>>
{\n @JsName("name$") private var _name: String = ""\n @JsName("ordinal$") private var _ordinal: Int =
0\n\n val name: String\n get() = _name\n\n val ordinal: Int\n get() = _ordinal\n\n override fun
compareTo(other: Enum<T>) = ordinal.compareTo(other.ordinal)\n\n override fun equals(other: Any?) = this ===
other\n\n override fun hashCode(): Int = js("Kotlin.identityHashCode")(this)\n\n override fun
toString() = name\n\n companion object\n}"}\n\n/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n */\n\npackage
kotlin.js.internal\n\n@jsName("DoubleCompanionObject")\ninternal object DoubleCompanionObject {\n
@jsName("MIN_VALUE")\n const val MIN_VALUE: Double = 4.9E-324\n\n
@jsName("MAX_VALUE")\n const val MAX_VALUE: Double = 1.7976931348623157E308\n\n
@jsName("POSITIVE_INFINITY")\n @Suppress("DIVISION_BY_ZERO")\n const val
POSITIVE_INFINITY: Double = 1.0 / 0.0\n\n
@jsName("NEGATIVE_INFINITY")\n
@Suppress("DIVISION_BY_ZERO")\n const val NEGATIVE_INFINITY: Double = -1.0 / 0.0\n\n
@jsName("NaN")\n @Suppress("DIVISION_BY_ZERO")\n const val NaN: Double = -(0.0 / 0.0)\n\n
@jsName("SIZE_BYTES")\n const val SIZE_BYTES = 8\n\n
@jsName("SIZE_BITS")\n const val
SIZE_BITS
= 64\n}\n\n@jsName("FloatCompanionObject")\ninternal object FloatCompanionObject {\n
@jsName("MIN_VALUE")\n const val MIN_VALUE: Float = 1.4E-45F\n\n
@jsName("MAX_VALUE")\n
const val MAX_VALUE: Float = 3.4028235E38F\n\n
@jsName("POSITIVE_INFINITY")\n
@Suppress("DIVISION_BY_ZERO")\n const val POSITIVE_INFINITY: Float = 1.0F / 0.0F\n\n
@jsName("NEGATIVE_INFINITY")\n
@Suppress("DIVISION_BY_ZERO")\n const val
NEGATIVE_INFINITY: Float = -1.0F / 0.0F\n\n
@jsName("NaN")\n
@Suppress("DIVISION_BY_ZERO")\n const val NaN: Float = -(0.0F / 0.0F)\n\n
@jsName("SIZE_BYTES")\n const val SIZE_BYTES = 4\n\n
@jsName("SIZE_BITS")\n const val
SIZE_BITS = 32\n}\n\n@jsName("IntCompanionObject")\ninternal object IntCompanionObject {\n
@jsName("MIN_VALUE")\n val MIN_VALUE: Int = -2147483647 - 1\n\n
@jsName("MAX_VALUE")\n
val MAX_VALUE: Int = 2147483647\n\n
@jsName("SIZE_BYTES")\n const val SIZE_BYTES = 4\n\n
@jsName("SIZE_BITS")\n const val SIZE_BITS = 32\n}\n\n@jsName("LongCompanionObject")\ninternal
object LongCompanionObject {\n @JsName("MIN_VALUE")\n val MIN_VALUE: Long =
js("Kotlin.Long.MIN_VALUE")\n\n
@jsName("MAX_VALUE")\n val MAX_VALUE: Long =
js("Kotlin.Long.MAX_VALUE")\n\n
@jsName("SIZE_BYTES")\n const val SIZE_BYTES = 8\n\n
@jsName("SIZE_BITS")\n const val SIZE_BITS = 64\n}\n\n@jsName("ShortCompanionObject")\ninternal
object ShortCompanionObject {\n @JsName("MIN_VALUE")\n val MIN_VALUE: Short = -32768\n\n
@jsName("MAX_VALUE")\n val MAX_VALUE: Short = 32767\n\n
@jsName("SIZE_BYTES")\n const
val SIZE_BYTES = 2\n\n
@jsName("SIZE_BITS")\n const val SIZE_BITS =
16\n}\n\n@jsName("ByteCompanionObject")\ninternal object ByteCompanionObject {\n

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@jsName("MIN_VALUE")\n val MIN_VALUE: Byte = -128\n\n @JsName("MAX_VALUE")\n val
MAX_VALUE: Byte = 127\n\n @JsName("SIZE_BYTES")\n const
val SIZE_BYTES = 1\n\n @JsName("SIZE_BITS")\n const val SIZE_BITS =
8\n}\n\n@jsName("CharCompanionObject")\ninternal object CharCompanionObject {\n
@jsName("MIN_VALUE")\n public const val MIN_VALUE: Char = '\u0000'\n\n
@jsName("MAX_VALUE")\n public const val MAX_VALUE: Char = '\uFFFF'\n\n
@jsName("MIN_HIGH_SURROGATE")\n public const val MIN_HIGH_SURROGATE: Char = '\uD800'\n\n
@jsName("MAX_HIGH_SURROGATE")\n public const val MAX_HIGH_SURROGATE: Char =
'\uDBFF'\n\n @JsName("MIN_LOW_SURROGATE")\n public const val MIN_LOW_SURROGATE: Char =
'\uDC00'\n\n @JsName("MAX_LOW_SURROGATE")\n public const val MAX_LOW_SURROGATE: Char
= '\uDFFF'\n\n @JsName("MIN_SURROGATE")\n public const val MIN_SURROGATE: Char =
MIN_HIGH_SURROGATE\n\n @JsName("MAX_SURROGATE")\n public const val MAX_SURROGATE:
Char = MAX_LOW_SURROGATE\n\n @JsName("SIZE_BYTES")\n const val SIZE_BYTES = 2\n\n
@jsName("SIZE_BITS")\n const
val SIZE_BITS = 16\n}\n\ninternal object StringCompanionObject {\n}\n\ninternal object
BooleanCompanionObject {\n}\n\n",/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n
*\n\n@file:kotlin.jvm.JvmMultifileClass\n\n@file:kotlin.jvm.JvmName("ArraysKt")\n\npackage
kotlin.collections\n\n/\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\n/\n\nimport kotlin.random.*\nimport
kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the
size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior
is unspecified.\n * \n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1,
throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*\n\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Array<out T>.component1(): T
{\n return get(0)\n}\n\n/**\n
* Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1, throws an
[IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*\n\n@kotlin.internal.InlineOnly\npublic inline operator fun ByteArray.component1(): Byte {\n return
get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1,
throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*\n\n@kotlin.internal.InlineOnly\npublic inline operator fun ShortArray.component1(): Short {\n return
get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1,
throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*\n\n@kotlin.internal.InlineOnly\npublic inline operator fun IntArray.component1(): Int {\n return
get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size
of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is
unspecified.\n * \n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1,
throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*\n\n@kotlin.internal.InlineOnly\npublic inline operator fun LongArray.component1(): Long {\n return
get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1,
throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*\n\n@kotlin.internal.InlineOnly\npublic inline operator fun FloatArray.component1(): Float {\n return
get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1,
throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*\n\n@kotlin.internal.InlineOnly\npublic inline operator fun DoubleArray.component1(): Double {\n return
get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1,
throws an [IndexOutOfBoundsException]
except in Kotlin/JS\n * where the behavior is unspecified.\n * \n * Returns 1st *element* from the array.\n * \n *
If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where

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the behavior is unspecified.

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*\n@kotlin.internal.InlineOnly\npublic inline operator fun CharArray.component1():
Char {\n  return get(0)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less
than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Array<out T>.component2(): T {\n  return
get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an
[IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior
is unspecified.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun ByteArray.component2(): Byte {\n  return
get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2,
throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun ShortArray.component2(): Short {\n  return
get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an
[IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun IntArray.component2(): Int {\n  return
get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an
[IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*\n@kotlin.internal.InlineOnly\npublic inline
operator fun LongArray.component2(): Long {\n  return get(1)\n}\n\n/**\n * Returns 2nd *element* from the
array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n
* where the behavior is unspecified.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun
FloatArray.component2(): Float {\n  return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If
the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the
behavior is unspecified.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun DoubleArray.component2():
Double {\n  return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is
less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun BooleanArray.component2(): Boolean {\n  return
get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2,
throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun CharArray.component2(): Char {\n  return
get(1)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an
[IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Array<out T>.component3(): T {\n  return
get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an
[IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun ByteArray.component3(): Byte {\n  return
get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n
* \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where
the behavior is unspecified.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun ShortArray.component3():
Short {\n  return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less
than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun IntArray.component3(): Int {\n  return
get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an
[IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun LongArray.component3(): Long {\n  return
get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws
an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun FloatArray.component3(): Float {\n  return
get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an
[IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n

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*^@kotlin.internal.InlineOnly\npublic inline operator fun DoubleArray.component3(): Double {\n  return
get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an
[IndexOutOfBoundsExcep] except in Kotlin/JS\n * where the behavior is unspecified.\n
*^@kotlin.internal.InlineOnly\npublic inline operator fun BooleanArray.component3(): Boolean {\n  return
get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an
[IndexOutOfBoundsExcep] except in Kotlin/JS\n
 * where the behavior is unspecified.\n
*^@kotlin.internal.InlineOnly\npublic inline operator fun
CharArray.component3(): Char {\n  return get(2)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If
the size of this array is less than 4, throws an [IndexOutOfBoundsExcep] except in Kotlin/JS\n * where the
behavior is unspecified.\n
*^@kotlin.internal.InlineOnly\npublic inline operator fun <T> Array<out
T>.component4(): T {\n  return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of
this array is less than 4, throws an [IndexOutOfBoundsExcep] except in Kotlin/JS\n * where the behavior is
unspecified.\n
*^@kotlin.internal.InlineOnly\npublic inline operator fun ByteArray.component4(): Byte {\n  return
get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4,
throws an [IndexOutOfBoundsExcep] except in Kotlin/JS\n * where the behavior is unspecified.\n
*^@kotlin.internal.InlineOnly\npublic
inline operator fun ShortArray.component4(): Short {\n  return get(3)\n}\n\n/**\n * Returns 4th *element* from
the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsExcep] except in
Kotlin/JS\n * where the behavior is unspecified.\n
*^@kotlin.internal.InlineOnly\npublic inline operator fun
IntArray.component4(): Int {\n  return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If
the size of this array is less than 4, throws an [IndexOutOfBoundsExcep] except in Kotlin/JS\n * where the
behavior is unspecified.\n
*^@kotlin.internal.InlineOnly\npublic inline operator fun LongArray.component4(): Long {\n  return
get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4,
throws an [IndexOutOfBoundsExcep] except in Kotlin/JS\n * where the behavior is unspecified.\n
*^@kotlin.internal.InlineOnly\npublic inline operator fun FloatArray.component4():
Float {\n  return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is
less than 4, throws an [IndexOutOfBoundsExcep] except in Kotlin/JS\n * where the behavior is unspecified.\n
*^@kotlin.internal.InlineOnly\npublic inline operator fun DoubleArray.component4(): Double {\n  return
get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4,
throws an [IndexOutOfBoundsExcep] except in Kotlin/JS\n * where the behavior is unspecified.\n
*^@kotlin.internal.InlineOnly\npublic inline operator fun BooleanArray.component4(): Boolean {\n  return
get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4,
throws an [IndexOutOfBoundsExcep] except in Kotlin/JS\n * where the behavior is unspecified.\n
*^@kotlin.internal.InlineOnly\npublic inline operator fun CharArray.component4(): Char {\n  return
get(3)\n}\n\n/**\n * Returns 5th
*element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsExcep]
except in Kotlin/JS\n * where the behavior is unspecified.\n
*^@kotlin.internal.InlineOnly\npublic inline operator
fun <T> Array<out T>.component5(): T {\n  return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n *
\n * If the size of this array is less than 5, throws an [IndexOutOfBoundsExcep] except in Kotlin/JS\n * where
the behavior is unspecified.\n
*^@kotlin.internal.InlineOnly\npublic inline operator fun ByteArray.component5():
Byte {\n  return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is
less than 5, throws an [IndexOutOfBoundsExcep] except in Kotlin/JS\n * where the behavior is unspecified.\n
*^@kotlin.internal.InlineOnly\npublic inline operator fun ShortArray.component5(): Short {\n  return
get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array
is less than 5, throws an [IndexOutOfBoundsExcep] except in Kotlin/JS\n * where the behavior is
unspecified.\n
*^@kotlin.internal.InlineOnly\npublic inline operator fun IntArray.component5(): Int {\n  return
get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5,
throws an [IndexOutOfBoundsExcep] except in Kotlin/JS\n * where the behavior is unspecified.\n

```





```

inline fun CharArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Char): Char {
    return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)
}

Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.

@sample
samples.collections.Collections.Elements.elementAtOrNull

public inline fun <T> Array<out T>.elementAtOrNull(index: Int): T? {
    return this.getOrNull(index)
}

Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.

@sample
samples.collections.Collections.Elements.elementAtOrNull

public inline fun ByteArray.elementAtOrNull(index: Int): Byte? {
    return this.getOrNull(index)
}

Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.

@sample
samples.collections.Collections.Elements.elementAtOrNull

public inline fun ShortArray.elementAtOrNull(index: Int): Short? {
    return this.getOrNull(index)
}

Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.

@sample
samples.collections.Collections.Elements.elementAtOrNull

public inline fun IntArray.elementAtOrNull(index: Int): Int? {
    return this.getOrNull(index)
}

Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.

@sample
samples.collections.Collections.Elements.elementAtOrNull

public inline fun LongArray.elementAtOrNull(index: Int): Long? {
    return this.getOrNull(index)
}

Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.

@sample
samples.collections.Collections.Elements.elementAtOrNull

public inline fun FloatArray.elementAtOrNull(index: Int): Float? {
    return this.getOrNull(index)
}

Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.

@sample
samples.collections.Collections.Elements.elementAtOrNull

public inline fun DoubleArray.elementAtOrNull(index: Int): Double? {
    return this.getOrNull(index)
}

Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.

@sample
samples.collections.Collections.Elements.elementAtOrNull

public inline fun BooleanArray.elementAtOrNull(index: Int): Boolean? {
    return this.getOrNull(index)
}

Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.

@sample
samples.collections.Collections.Elements.elementAtOrNull

public inline fun CharArray.elementAtOrNull(index: Int): Char? {
    return this.getOrNull(index)
}

Returns the first element matching the given [predicate], or `null` if no such element was found.

@sample
samples.collections.Collections.Elements.find

public inline fun <T> Array<out T>.find(predicate: (T) -> Boolean): T? {
    return firstOrNull(predicate)
}

Returns the first element matching the given [predicate], or `null` if no such element was found.

@sample
samples.collections.Collections.Elements.find

public inline fun ByteArray.find(predicate: (Byte) -> Boolean): Byte? {
    return firstOrNull(predicate)
}

Returns the first element matching the given [predicate], or `null` if no such element was found.

@sample
samples.collections.Collections.Elements.find

public inline fun ShortArray.find(predicate: (Short) -> Boolean): Short? {
    return firstOrNull(predicate)
}

Returns the first element matching the given [predicate], or `null` if no such element was found.

@sample
samples.collections.Collections.Elements.find

public inline fun IntArray.find(predicate: (Int) -> Boolean): Int? {
    return firstOrNull(predicate)
}

Returns the first element matching the given [predicate], or `null` if no such element was found.

@sample
samples.collections.Collections.Elements.find

public inline fun LongArray.find(predicate: (Long) -> Boolean): Long? {
    return firstOrNull(predicate)
}

Returns the first element matching the given [predicate], or `null` if no such element was found.

@sample

```

```

samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun
FloatArray.find(predicate: (Float) -> Boolean): Float? {\n    return firstOrNull(predicate)\n}\n\n/**\n * Returns the
first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun
DoubleArray.find(predicate: (Double) -> Boolean): Double? {\n    return firstOrNull(predicate)\n}\n\n/**\n *
Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun
BooleanArray.find(predicate:
(Boolean) -> Boolean): Boolean? {\n    return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element
matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun
CharArray.find(predicate: (Char) -> Boolean): Char? {\n    return firstOrNull(predicate)\n}\n\n/**\n * Returns the
last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out
T>.findLast(predicate: (T) -> Boolean): T? {\n    return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element
matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun
ByteArray.findLast(predicate: (Byte) -> Boolean): Byte? {\n
    return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no
such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.findLast(predicate: (Short) -> Boolean): Short? {\n
    return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no
such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.findLast(predicate: (Int) -> Boolean): Int? {\n    return
lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such
element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.findLast(predicate: (Long) -> Boolean): Long? {\n
    return lastOrNull(predicate)\n}\n\n/**\n *
Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun
FloatArray.findLast(predicate: (Float) -> Boolean): Float? {\n    return lastOrNull(predicate)\n}\n\n/**\n * Returns
the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun
DoubleArray.findLast(predicate: (Double) -> Boolean): Double? {\n    return lastOrNull(predicate)\n}\n\n/**\n *
Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun
BooleanArray.findLast(predicate: (Boolean) -> Boolean): Boolean? {\n    return lastOrNull(predicate)\n}\n\n/**\n *
Returns the last element
matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun
CharArray.findLast(predicate: (Char) -> Boolean): Char? {\n    return lastOrNull(predicate)\n}\n\n/**\n * Returns
first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun <T> Array<out
T>.first(): T {\n    if (isEmpty())\n        throw NoSuchElementException("Array is empty.")\n    return
this[0]\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n
*/\npublic fun ByteArray.first(): Byte {\n    if (isEmpty())\n        throw NoSuchElementException("Array is
empty.")\n    return this[0]\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the
array is empty.\n */\npublic fun ShortArray.first(): Short {\n    if (isEmpty())\n        throw
NoSuchElementException("Array is empty.")\n    return this[0]\n}\n\n/**\n

```



```

* Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun
IntArray.first(): Int {\n    if (isEmpty())\n        throw NoSuchElementException("Array is empty.")\n    return
this[0]\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n
*/\npublic fun LongArray.first(): Long {\n    if (isEmpty())\n        throw NoSuchElementException("Array is
empty.")\n    return this[0]\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the
array is empty.\n */\npublic fun FloatArray.first(): Float {\n    if (isEmpty())\n        throw
NoSuchElementException("Array is empty.")\n    return this[0]\n}\n\n/**\n * Returns first element.\n *
@throws [NoSuchElementException] if the array is empty.\n */\npublic fun DoubleArray.first(): Double {\n
    if (isEmpty())\n        throw NoSuchElementException("Array is empty.")\n    return this[0]\n}\n\n/**\n
 * Returns first element.\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic
inline fun <T> Array<out T>.first(predicate: (T) -> Boolean): T {\n    for (element in
this) if (predicate(element)) return element\n    throw NoSuchElementException("Array contains no element
matching the predicate.")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n *
@throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun ByteArray.first(predicate:
(Byte) -> Boolean): Byte {\n    for (element in this) if (predicate(element)) return element\n    throw
NoSuchElementException("Array contains no element matching the predicate.")\n}\n\n/**\n * Returns the first
element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n
*/\npublic inline fun ShortArray.first(predicate: (Short) -> Boolean): Short {\n    for (element in this) if
(predicate(element)) return element\n    throw NoSuchElementException("Array contains no element matching the
predicate.")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws
[NoSuchElementException] if no such element is found.\n */\npublic inline fun IntArray.first(predicate: (Int) ->
Boolean): Int {\n    for (element in this) if (predicate(element)) return element\n    throw
NoSuchElementException("Array contains no element matching the predicate.")\n}\n\n/**\n * Returns the first
element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n
*/\npublic inline fun LongArray.first(predicate: (Long) -> Boolean): Long {\n    for (element in this) if
(predicate(element)) return element\n    throw NoSuchElementException("Array contains no element matching the
predicate.")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such
element is found.\n */\npublic inline fun FloatArray.first(predicate: (Float) -> Boolean): Float {\n    for
(element in this) if (predicate(element)) return element\n    throw NoSuchElementException("Array contains no
element matching the predicate.")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n *
@throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun DoubleArray.first(predicate:
(Double) -> Boolean): Double {\n    for (element in this) if (predicate(element)) return element\n    throw
NoSuchElementException("Array
contains no element matching the predicate.")\n}\n\n/**\n * Returns the first element matching the given
[predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun
BooleanArray.first(predicate: (Boolean) -> Boolean): Boolean {\n    for (element in this) if
(predicate(element)) return element\n    throw NoSuchElementException("Array contains no element matching the
predicate.")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws
[NoSuchElementException] if no such element is found.\n */\npublic inline fun CharArray.first(predicate: (Char) ->
Boolean): Char {\n    for (element in this) if (predicate(element)) return element\n    throw
NoSuchElementException("Array contains no element matching the predicate.")\n}\n\n/**\n * Returns the first
non-null value produced by [transform] function being applied to elements of this array in iteration order.\n *
or

```

throws [NoSuchElementException] if no non-null value was produced.

```

@sample samples.collections.Collections.Transformations.firstNotNullOf
*/
@SinceKotlin("1.5")
@kotlin.internal.InlineOnly
public inline fun <T, R : Any> Array<out T>.firstNotNullOf(transform: (T) -> R?): R {
    return firstNotNullOfOrNull(transform) ?: throw
    NoSuchElementException("No element of the array was transformed to a non-null value.")
}
*/
Returns the first non-null value produced by [transform] function being applied to elements of this array in iteration order, or `null` if no non-null value was produced.
@sample
samples.collections.Collections.Transformations.firstNotNullOf
*/
@SinceKotlin("1.5")
@kotlin.internal.InlineOnly
public inline fun <T, R : Any> Array<out T>.firstNotNullOfOrNull(transform: (T) -> R?): R? {
    for (element in this) {
        val result = transform(element)
        if (result != null) return result
    }
    return null
}
*/
Returns the first element, or `null` if the array is empty.
public fun <T> Array<out T>.firstOrNull(): T? {
    return if (isEmpty()) null else this[0]
}
*/
Returns the first element, or `null` if the array is empty.
public fun ByteArray.firstOrNull(): Byte? {
    return if (isEmpty()) null else this[0]
}
*/
Returns the first element, or `null` if the array is empty.
public fun ShortArray.firstOrNull(): Short? {
    return if (isEmpty()) null else this[0]
}
*/
Returns the first element, or `null` if the array is empty.
public fun IntArray.firstOrNull(): Int? {
    return if (isEmpty()) null else this[0]
}
*/
Returns the first element, or `null` if the array is empty.
public fun LongArray.firstOrNull(): Long? {
    return if (isEmpty()) null else this[0]
}
*/
Returns the first element, or `null` if the array is empty.
public fun FloatArray.firstOrNull(): Float? {
    return if (isEmpty()) null else this[0]
}
*/
Returns the first element, or `null` if the array is empty.
public fun DoubleArray.firstOrNull(): Double? {
    return if (isEmpty()) null else this[0]
}
*/
Returns the first element, or `null` if the array is empty.
public fun BooleanArray.firstOrNull(): Boolean? {
    return if (isEmpty()) null else this[0]
}
*/
Returns the first element, or `null` if the array is empty.
public fun CharArray.firstOrNull(): Char? {
    return if (isEmpty()) null else this[0]
}
*/
Returns the first element matching the given [predicate], or `null` if element was not found.
public inline fun <T> Array<out T>.firstOrNull(predicate: (T) -> Boolean): T? {
    for (element in this) if (predicate(element)) return element
    return null
}
*/
Returns the first element matching the given [predicate], or `null` if element was not found.
public inline fun ByteArray.firstOrNull(predicate: (Byte) -> Boolean): Byte? {
    for (element in this) if (predicate(element)) return element
    return null
}
*/
Returns the first element matching the given [predicate], or `null` if element was not found.
public inline fun ShortArray.firstOrNull(predicate: (Short) -> Boolean): Short? {
    for (element in this) if (predicate(element)) return element
    return null
}
*/
Returns the first element matching the given [predicate], or `null` if element was not found.
public inline fun IntArray.firstOrNull(predicate: (Int) -> Boolean): Int? {
    for (element in this) if (predicate(element)) return element
    return null
}
*/
Returns the first element matching the given [predicate], or `null` if element was not found.
public inline fun LongArray.firstOrNull(predicate: (Long) -> Boolean): Long? {
    for (element in this) if (predicate(element)) return element
    return null
}
*/
Returns the first element matching the given [predicate], or `null` if element was not found.
public inline fun FloatArray.firstOrNull(predicate: (Float) -> Boolean): Float? {
    for (element in this) if (predicate(element)) return element
    return null
}
*/
Returns the first element matching the given [predicate], or `null` if element was not found.
public inline fun DoubleArray.firstOrNull(predicate: (Double) -> Boolean): Double? {
    for (element in this) if (predicate(element)) return element
    return null
}
*/
Returns the first element matching the given [predicate], or `null` if element was not found.
public inline fun BooleanArray.firstOrNull(predicate: (Boolean) -> Boolean): Boolean? {
    for (element in this) if (predicate(element)) return element
    return null
}
*/
Returns the first element matching the given [predicate], or `null` if element was not found.
public inline fun CharArray.firstOrNull(predicate: (Char) -> Boolean): Char? {
    for (element in this) if (predicate(element)) return element
    return

```

`null` Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.

```

fun <T> Array<out T>.getOrNull(index: Int, defaultValue: (Int) -> T): T? {
    return if (index >= 0 && index <= lastIndex) get(index)
    else defaultValue(index)
}

```

Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.

```

fun ByteArray.getOrNull(index: Int, defaultValue: (Int) -> Byte): Byte? {
    return if (index >= 0 && index <= lastIndex) get(index)
    else defaultValue(index)
}

```

Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.

```

fun ShortArray.getOrNull(index: Int, defaultValue: (Int) -> Short): Short? {
    return if (index >= 0 && index <= lastIndex) get(index)
    else defaultValue(index)
}

```

Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.

```

fun IntArray.getOrNull(index: Int, defaultValue: (Int) -> Int): Int? {
    return if (index >= 0 && index <= lastIndex) get(index)
    else defaultValue(index)
}

```

Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.

```

fun LongArray.getOrNull(index: Int, defaultValue: (Int) -> Long): Long? {
    return if (index >= 0 && index <= lastIndex) get(index)
    else defaultValue(index)
}

```

Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.

```

fun FloatArray.getOrNull(index: Int, defaultValue: (Int) -> Float): Float? {
    return if (index >= 0 && index <= lastIndex) get(index)
    else defaultValue(index)
}

```

Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.

```

fun DoubleArray.getOrNull(index: Int, defaultValue: (Int) -> Double): Double? {
    return if (index >= 0 && index <= lastIndex) get(index)
    else defaultValue(index)
}

```

Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.

```

fun BooleanArray.getOrNull(index: Int, defaultValue: (Int) -> Boolean): Boolean? {
    return if (index >= 0 && index <= lastIndex) get(index)
    else defaultValue(index)
}

```

Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.

```

fun CharArray.getOrNull(index: Int, defaultValue: (Int) -> Char): Char? {
    return if (index >= 0 && index <= lastIndex) get(index)
    else defaultValue(index)
}

```

Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.

```

@sample samples.collections.Collections.Elements.getOrNull<T>()
fun <T> Array<out T>.getOrNull(index: Int): T? {
    return if (index >= 0 && index <= lastIndex)
    get(index) else null
}

```

Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.

```

@sample samples.collections.Collections.Elements.getOrNull()
fun ByteArray.getOrNull(index: Int): Byte? {
    return if (index >= 0 && index <= lastIndex) get(index)
    else null
}

```

Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.

```

@sample samples.collections.Collections.Elements.getOrNull()
fun ShortArray.getOrNull(index: Int): Short? {
    return if (index >= 0 && index <= lastIndex) get(index)
    else null
}

```

Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.

```

@sample samples.collections.Collections.Elements.getOrNull()
fun IntArray.getOrNull(index: Int): Int? {
    return if (index >= 0 && index <= lastIndex) get(index)
    else null
}

```

Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.

```

@sample samples.collections.Collections.Elements.getOrNull()
fun LongArray.getOrNull(index: Int): Long? {
    return if (index >= 0 && index <= lastIndex) get(index)
    else null
}

```

Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.

```

@sample samples.collections.Collections.Elements.getOrNull()
fun FloatArray.getOrNull(index: Int): Float? {
    return if (index >= 0 && index <= lastIndex)
    get(index) else null
}

```

Returns an element at the given [index] or `null` if the [index] is out of bounds of

```

this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n *^npublic fun
DoubleArray.getOrNull(index: Int): Double? {\n    return if (index >= 0 && index <= lastIndex) get(index) else
null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n
* @sample samples.collections.Collections.Elements.getOrNull\n *^npublic fun BooleanArray.getOrNull(index:
Int): Boolean? {\n    return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an
element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.getOrNull\n *^npublic fun CharArray.getOrNull(index: Int): Char?
{\n    return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns first index of
[element], or -1 if the array does not contain element.\n *^npublic fun <@kotlin.internal.OnlyInputTypes T>
Array<out T>.indexOf(element: T): Int {\n    if (element == null) {\n        for (index in indices) {\n            if
(this[index] == null) {\n                return index\n            }\n        }\n    } else {\n        for (index in indices) {\n
if (element == this[index]) {\n                return index\n            }\n        }\n    }\n    return -1\n}\n\n/**\n * Returns
first index of [element], or -1 if the array does not contain element.\n *^npublic fun ByteArray.indexOf(element:
Byte): Int {\n    for (index in indices) {\n        if (element == this[index]) {\n            return index\n        }\n    }\n
return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n *^npublic fun
ShortArray.indexOf(element:
Short): Int {\n    for (index in indices) {\n        if (element == this[index]) {\n            return index\n        }\n    }\n
return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n *^npublic fun
IntArray.indexOf(element: Int): Int {\n    for (index in indices) {\n        if (element == this[index]) {\n            return
index\n        }\n    }\n    return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain
element.\n *^npublic fun LongArray.indexOf(element: Long): Int {\n    for (index in indices) {\n        if (element ==
this[index]) {\n            return index\n        }\n    }\n    return -1\n}\n\n/**\n * Returns first index of [element], or -1 if
the array does not contain element.\n *^n@Deprecated("The function has unclear behavior when searching for NaN
or zero values and will be removed soon. Use 'indexOfFirst { it == element }' instead to continue using this
behavior, or '.asList().indexOf(element:
T)' to get the same search behavior as in a list.", ReplaceWith("indexOfFirst { it == element
}")\n)\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.6")\npublic fun
FloatArray.indexOf(element: Float): Int {\n    for (index in indices) {\n        if (element == this[index]) {\n
return index\n        }\n    }\n    return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not
contain element.\n *^n@Deprecated("The function has unclear behavior when searching for NaN or zero values
and will be removed soon. Use 'indexOfFirst { it == element }' instead to continue using this behavior, or
'.asList().indexOf(element: T)' to get the same search behavior as in a list.", ReplaceWith("indexOfFirst { it ==
element }")\n)\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.6")\npublic fun
DoubleArray.indexOf(element: Double): Int {\n    for (index in indices) {\n        if (element == this[index]) {\n
return index\n        }\n    }\n    return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not
contain element.\n *^npublic fun BooleanArray.indexOf(element: Boolean): Int {\n    for (index in indices) {\n
if (element == this[index]) {\n        return index\n    }\n    return -1\n}\n\n/**\n * Returns first index of
[element], or -1 if the array does not contain element.\n *^npublic fun CharArray.indexOf(element: Char): Int {\n
for (index in indices) {\n        if (element == this[index]) {\n            return index\n        }\n    }\n    return -
1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain
such element.\n *^npublic inline fun <T> Array<out T>.indexOfFirst(predicate: (T) -> Boolean): Int {\n    for
(index in indices) {\n        if (predicate(this[index])) {\n            return index\n        }\n    }\n    return -1\n}\n\n/**\n *
Returns index of the first element
matching the given [predicate], or -1 if the array does not contain such element.\n *^npublic inline fun
ByteArray.indexOfFirst(predicate: (Byte) -> Boolean): Int {\n    for (index in indices) {\n        if
(predicate(this[index])) {\n            return index\n        }\n    }\n    return -1\n}\n\n/**\n * Returns index of the first
element matching the given [predicate], or -1 if the array does not contain such element.\n *^npublic inline fun
ShortArray.indexOfFirst(predicate: (Short) -> Boolean): Int {\n    for (index in indices) {\n        if

```

```

(predicate(this[index])) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns index of the first
element matching the given [predicate], or -1 if the array does not contain such element.\n
*/\npublic inline fun
IntArray.indexOfFirst(predicate: (Int) -> Boolean): Int {\n  for (index in indices) {\n    if (predicate(this[index]))
{\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n *
Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n
*/\npublic inline fun LongArray.indexOfFirst(predicate: (Long) -> Boolean): Int {\n  for (index in indices) {\n    if
(predicate(this[index])) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns index of the first
element matching the given [predicate], or -1 if the array does not contain such element.\n
*/\npublic inline fun
FloatArray.indexOfFirst(predicate: (Float) -> Boolean): Int {\n  for (index in indices) {\n    if
(predicate(this[index])) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns index of the first
element matching the given [predicate], or -1 if the array does not contain such element.\n
*/\npublic inline fun
DoubleArray.indexOfFirst(predicate: (Double) -> Boolean): Int {\n  for (index in indices) {\n    if
(predicate(this[index])) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns index of the first
element matching the given [predicate], or -1 if the array does not contain such element.\n
*/\npublic inline fun BooleanArray.indexOfFirst(predicate: (Boolean) -> Boolean): Int {\n  for (index in indices) {\n    if
(predicate(this[index])) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns index of the first
element matching the given [predicate], or -1 if the array does not contain such element.\n
*/\npublic inline fun CharArray.indexOfFirst(predicate: (Char) -> Boolean): Int {\n  for (index in
indices) {\n    if (predicate(this[index])) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns
index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n
*/\npublic inline fun <T> Array<out T>.indexOfLast(predicate: (T) -> Boolean): Int {\n  for (index in
indices.reversed()) {\n    if (predicate(this[index]))
{\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns index of the last element matching the
given [predicate], or -1 if the array does not contain such element.\n
*/\npublic inline fun
ByteArray.indexOfLast(predicate: (Byte) -> Boolean): Int {\n  for (index in indices.reversed()) {\n    if
(predicate(this[index])) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns index of the last
element matching the given [predicate], or -1 if the array does not contain such element.\n
*/\npublic inline fun
ShortArray.indexOfLast(predicate: (Short) -> Boolean): Int {\n  for (index in indices.reversed()) {\n    if
(predicate(this[index])) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns index of the last
element matching the given [predicate], or -1 if the array does not contain such element.\n
*/\npublic inline fun
IntArray.indexOfLast(predicate: (Int) -> Boolean): Int {\n  for (index
in indices.reversed()) {\n    if (predicate(this[index])) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns index of the last element matching the
given [predicate], or -1 if the array does not contain such element.\n
*/\npublic inline fun LongArray.indexOfLast(predicate: (Long) -> Boolean): Int {\n  for (index in
indices.reversed()) {\n    if (predicate(this[index])) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns index of the last element matching the
given [predicate], or -1 if the array does not contain such
element.\n
*/\npublic inline fun FloatArray.indexOfLast(predicate: (Float) -> Boolean): Int {\n  for (index in
indices.reversed()) {\n    if (predicate(this[index])) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns index of the last element matching the
given [predicate], or -1 if the array does not contain such
element.\n
*/\npublic inline fun DoubleArray.indexOfLast(predicate:
(Double) -> Boolean): Int {\n  for (index in indices.reversed()) {\n    if (predicate(this[index])) {\n      return
index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -
1 if the array does not contain such element.\n
*/\npublic inline fun BooleanArray.indexOfLast(predicate: (Boolean)
-> Boolean): Int {\n  for (index in indices.reversed()) {\n    if (predicate(this[index])) {\n      return index\n
    }\n  }\n  return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the
array does not contain such element.\n
*/\npublic inline fun CharArray.indexOfLast(predicate: (Char) -> Boolean): Int {\n  for (index in
indices.reversed()) {\n    if (predicate(this[index])) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns the last element.\n
*/\n * @throws NoSuchElementException if the array is empty.\n

```

```

 * \n * @sample samples.collections.Collections.Elements.last\n * \npublic fun <T> Array<out T>.last(): T {\n  if
(isEmpty())\n    throw NoSuchElementException("Array is empty.")\n  return this[lastIndex]\n}\n\n/**\n *
Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample
samples.collections.Collections.Elements.last\n * \npublic fun ByteArray.last(): Byte {\n  if (isEmpty())\n
throw NoSuchElementException("Array is empty.")\n  return this[lastIndex]\n}\n\n/**\n * Returns the last
element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample
samples.collections.Collections.Elements.last\n * \npublic fun ShortArray.last(): Short {\n  if (isEmpty())\n
throw NoSuchElementException("Array is empty.")\n  return this[lastIndex]\n}\n\n/**\n * Returns the last
element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample
samples.collections.Collections.Elements.last\n * \npublic fun IntArray.last(): Int {\n  if (isEmpty())\n
throw NoSuchElementException("Array is empty.")\n  return this[lastIndex]\n}\n\n/**\n * Returns the last
element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample
samples.collections.Collections.Elements.last\n * \npublic fun LongArray.last():
Long {\n  if (isEmpty())\n    throw NoSuchElementException("Array is empty.")\n  return
this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is
empty.\n * \n * @sample samples.collections.Collections.Elements.last\n * \npublic fun FloatArray.last(): Float {\n
if (isEmpty())\n  throw NoSuchElementException("Array is empty.")\n  return this[lastIndex]\n}\n\n/**\n *
Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample
samples.collections.Collections.Elements.last\n * \npublic fun DoubleArray.last(): Double
{\n  if (isEmpty())\n    throw NoSuchElementException("Array is empty.")\n  return
this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is
empty.\n * \n * @sample samples.collections.Collections.Elements.last\n * \npublic fun BooleanArray.last():
Boolean {\n  if (isEmpty())\n    throw NoSuchElementException("Array is empty.")\n  return
this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is
empty.\n * \n * @sample samples.collections.Collections.Elements.last\n * \npublic fun CharArray.last(): Char {\n
if (isEmpty())\n  throw NoSuchElementException("Array is empty.")\n  return this[lastIndex]\n}\n\n/**\n *
Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such
element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n * \npublic inline fun <T>
Array<out T>.last(predicate:
(T) -> Boolean): T {\n  for (index in this.indices.reversed()) {\n    val element = this[index]\n    if
(predicate(element)) return element\n  }\n  throw NoSuchElementException("Array contains no element
matching the predicate.")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws
NoSuchElementException if no such element is found.\n * \n * @sample
samples.collections.Collections.Elements.last\n * \npublic inline fun ByteArray.last(predicate: (Byte) -> Boolean):
Byte {\n  for (index in this.indices.reversed()) {\n    val element = this[index]\n    if (predicate(element)) return
element\n  }\n  throw NoSuchElementException("Array contains no element matching the
predicate.")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws
NoSuchElementException if no such element is found.\n * \n * @sample
samples.collections.Collections.Elements.last\n * \npublic inline fun ShortArray.last(predicate:
(Short) -> Boolean): Short {\n  for (index in this.indices.reversed()) {\n    val element = this[index]\n    if
(predicate(element)) return element\n  }\n  throw NoSuchElementException("Array contains no element
matching the predicate.")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws
NoSuchElementException if no such element is found.\n * \n * @sample
samples.collections.Collections.Elements.last\n * \npublic inline fun IntArray.last(predicate: (Int) -> Boolean): Int
{\n  for (index in this.indices.reversed()) {\n    val element = this[index]\n    if (predicate(element)) return
element\n  }\n  throw NoSuchElementException("Array contains no element matching the
predicate.")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws
NoSuchElementException if no such element is found.\n * \n * @sample

```

```

samples.collections.Collections.Elements.last\n *\npublic inline fun LongArray.last(predicate:
(Long) -> Boolean): Long {\n  for (index in this.indices.reversed()) {\n    val element = this[index]\n    if
(predicate(element)) return element\n  }\n  throw NoSuchElementException("Array contains no element
matching the predicate.")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws
NoSuchElementException if no such element is found.\n * \n * @sample
samples.collections.Collections.Elements.last\n *\npublic inline fun FloatArray.last(predicate: (Float) -> Boolean):
Float {\n  for (index in this.indices.reversed()) {\n    val element = this[index]\n    if (predicate(element))
return element\n  }\n  throw NoSuchElementException("Array contains no element matching the
predicate.")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws
NoSuchElementException if no such element is found.\n * \n * @sample
samples.collections.Collections.Elements.last\n *\npublic inline
fun DoubleArray.last(predicate: (Double) -> Boolean): Double {\n  for (index in this.indices.reversed()) {\n
val element = this[index]\n    if (predicate(element)) return element\n  }\n  throw
NoSuchElementException("Array contains no element matching the predicate.")\n}\n\n/**\n * Returns the last
element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n
* \n * @sample
samples.collections.Collections.Elements.last\n *\npublic inline fun BooleanArray.last(predicate:
(Boolean) -> Boolean): Boolean {\n  for (index in this.indices.reversed()) {\n    val element = this[index]\n    if
(predicate(element)) return element\n  }\n  throw NoSuchElementException("Array contains no element
matching the predicate.")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws
NoSuchElementException if no such element is found.\n * \n * @sample
samples.collections.Collections.Elements.last\n
*\npublic inline fun CharArray.last(predicate: (Char) -> Boolean): Char {\n  for (index in this.indices.reversed())
{\n    val element = this[index]\n    if (predicate(element)) return element\n  }\n  throw
NoSuchElementException("Array contains no element matching the predicate.")\n}\n\n/**\n * Returns last index
of [element], or -1 if the array does not contain element.\n *\npublic fun <@kotlin.internal.OnlyInputTypes T>
Array<out T>.lastIndexOf(element: T): Int {\n  if (element == null) {\n    for (index in indices.reversed()) {\n
if (this[index] == null) {\n      return index\n    }\n  }\n } else {\n  for (index in
indices.reversed()) {\n    if (element == this[index]) {\n      return index\n    }\n  }\n }\n }\n
return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n *\npublic fun
ByteArray.lastIndexOf(element: Byte): Int
{\n  for (index in indices.reversed()) {\n    if (element == this[index]) {\n      return index\n    }\n  }\n
return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n *\npublic fun
ShortArray.lastIndexOf(element: Short): Int {\n  for (index in indices.reversed()) {\n    if (element ==
this[index]) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns last index of [element], or -1 if
the array does not contain element.\n *\npublic fun IntArray.lastIndexOf(element: Int): Int {\n  for (index in
indices.reversed()) {\n    if (element == this[index]) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n
* Returns last index of [element], or -1 if the array does not contain element.\n *\npublic fun
LongArray.lastIndexOf(element: Long): Int {\n  for (index in indices.reversed()) {\n    if (element ==
this[index]) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns last index of [element], or -1 if
the array does not contain element.\n *\n@Deprecated("The function has unclear behavior when searching for NaN or zero values and will be removed
soon. Use 'indexOfLast { it == element }' instead to continue using this behavior, or '.asList().lastIndexOf(element:
T)' to get the same search behavior as in a list.", ReplaceWith("indexOfLast { it == element
}"))\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.6")\npublic fun
FloatArray.lastIndexOf(element: Float): Int {\n  for (index in indices.reversed()) {\n    if (element ==
this[index]) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns last index of [element], or -1 if
the array does not contain element.\n *\n@Deprecated("The function has unclear behavior when searching for NaN
or zero values and will be removed soon. Use 'indexOfLast { it == element }' instead to continue using this

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behavior, or `list.lastIndexOf(element:`

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T') to get the same search behavior as in a list.", ReplaceWith("""indexOfLast { it == element
})""")\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic fun
DoubleArray.lastIndexOf(element: Double): Int {\n    for (index in indices.reversed()) {\n        if (element ==
this[index]) {\n            return index\n        }\n    }\n    return -1\n}\n\n/**\n * Returns last index of [element], or -1 if
the array does not contain element.\n */\npublic fun BooleanArray.lastIndexOf(element: Boolean): Int {\n    for
(index in indices.reversed()) {\n        if (element == this[index]) {\n            return index\n        }\n    }\n    return -
1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\npublic fun
CharArray.lastIndexOf(element: Char): Int {\n    for (index in indices.reversed()) {\n        if (element == this[index])
{\n            return index\n        }\n    }\n    return -1\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n */\n * @sample
samples.collections.Collections.Elements.last\n */\npublic fun <T> Array<out T>.lastOrNull(): T? {\n    return if
(isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n */\n * @sample
samples.collections.Collections.Elements.last\n */\npublic fun ByteArray.lastOrNull(): Byte? {\n    return
if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n */\n * @sample
samples.collections.Collections.Elements.last\n */\npublic fun ShortArray.lastOrNull(): Short? {\n    return
if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n */\n * @sample
samples.collections.Collections.Elements.last\n */\npublic fun IntArray.lastOrNull(): Int? {\n    return
if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the
array is empty.\n */\n * @sample samples.collections.Collections.Elements.last\n */\npublic fun
LongArray.lastOrNull(): Long? {\n    return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last
element, or `null` if the array is empty.\n */\n * @sample samples.collections.Collections.Elements.last\n */\npublic fun
FloatArray.lastOrNull(): Float? {\n    return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last
element, or `null` if the array is empty.\n */\n * @sample samples.collections.Collections.Elements.last\n */\npublic fun
DoubleArray.lastOrNull(): Double? {\n    return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the
last element, or `null` if the array is empty.\n */\n * @sample samples.collections.Collections.Elements.last\n */\npublic fun
BooleanArray.lastOrNull(): Boolean? {\n    return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n */\n * @sample
samples.collections.Collections.Elements.last\n */\npublic fun CharArray.lastOrNull(): Char? {\n    return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n */\n * @sample
samples.collections.Collections.Elements.last\n */\npublic inline fun <T> Array<out T>.lastOrNull(predicate: (T) ->
Boolean): T? {\n    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if
(predicate(element)) return element\n    }\n    return null\n}\n\n/**\n * Returns the last element matching the given
[predicate], or `null` if no such element was found.\n */\n * @sample
samples.collections.Collections.Elements.last\n */\npublic inline fun ByteArray.lastOrNull(predicate: (Byte) ->
Boolean): Byte? {\n    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if
(predicate(element)) return element\n    }\n    return null\n}\n\n/**\n * Returns the last element
matching the given [predicate], or `null` if no such element was found.\n */\n * @sample
samples.collections.Collections.Elements.last\n */\npublic inline fun ShortArray.lastOrNull(predicate: (Short) ->
Boolean): Short? {\n    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if
(predicate(element)) return element\n    }\n    return null\n}\n\n/**\n * Returns the last element matching the given
[predicate], or `null` if no such element was found.\n */\n * @sample
samples.collections.Collections.Elements.last\n */\npublic inline fun IntArray.lastOrNull(predicate: (Int) ->
Boolean): Int? {\n    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if
(predicate(element)) return element\n    }\n    return null\n}\n\n/**\n * Returns the last element matching the given
[predicate], or `null` if no such element was found.\n */\n * @sample
samples.collections.Collections.Elements.last\n */\npublic inline fun LongArray.lastOrNull(predicate:
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(Long) -> Boolean): Long? {\n  for (index in this.indices.reversed()) {\n    val element = this[index]\n    if
(predicate(element)) return element\n  }\n  return null\n}\n\n/**\n * Returns the last element matching the given
[predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.last\n */\npublic inline fun FloatArray.lastOrNull(predicate: (Float) ->
Boolean): Float? {\n  for (index in this.indices.reversed()) {\n    val element = this[index]\n    if
(predicate(element)) return element\n  }\n  return null\n}\n\n/**\n * Returns the last element matching the given
[predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.last\n */\npublic inline fun DoubleArray.lastOrNull(predicate: (Double) ->
Boolean): Double? {\n  for (index in this.indices.reversed()) {\n    val element = this[index]\n    if
(predicate(element)) return element\n  }\n  return null\n}\n\n/**\n * Returns the last element matching the given
[predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.last\n */\npublic inline fun BooleanArray.lastOrNull(predicate: (Boolean) -> Boolean): Boolean? {\n  for (index in this.indices.reversed()) {\n    val element = this[index]\n    if (predicate(element)) return element\n  }\n  return null\n}\n\n/**\n * Returns the last element matching the given
[predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.last\n */\npublic inline fun CharArray.lastOrNull(predicate: (Char) ->
Boolean): Char? {\n  for (index in this.indices.reversed()) {\n    val element = this[index]\n    if
(predicate(element)) return element\n  }\n  return null\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n\n/**\n * @SinceKotlin("1.3")\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.random(): T {\n  return random(Random)\n}\n\n/**\n * Returns a random element
from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n\n/**\n * @SinceKotlin("1.3")\n */\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.random(): Byte {\n  return
random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws
NoSuchElementException if this array is empty.\n */\n\n/**\n * @SinceKotlin("1.3")\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.random(): Short {\n  return
random(Random)\n}\n\n/**\n * Returns a random element from
this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n\n/**\n * @SinceKotlin("1.3")\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.random(): Int {\n  return
random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws
NoSuchElementException if this array is empty.\n */\n\n/**\n * @SinceKotlin("1.3")\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.random(): Long {\n  return
random(Random)\n}\n\n/**\n * Returns a random element from
this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n\n/**\n * @SinceKotlin("1.3")\n */\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.random(): Float {\n  return
random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws
NoSuchElementException if this array is empty.\n */\n\n/**\n * @SinceKotlin("1.3")\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.random(): Double {\n  return
random(Random)\n}\n\n/**\n * Returns a random element
from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n\n/**\n * @SinceKotlin("1.3")\n */\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.random(): Boolean {\n  return
random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws
NoSuchElementException if this array is empty.\n */\n\n/**\n * @SinceKotlin("1.3")\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.random(): Char {\n  return
random(Random)\n}\n\n/**\n * Returns a random element from
this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is
empty.\n */\n\n/**\n * @SinceKotlin("1.3")\n */\npublic fun <T> Array<out T>.random(random: Random): T {\n  if
(isEmpty())\n    throw NoSuchElementException("Array is empty.")\n  return
get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of
randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n\n/**\n * @SinceKotlin("1.3")\n */\npublic fun ByteArray.random(random: Random): Byte {\n  if (isEmpty())\n    throw NoSuchElementException("Array
is empty.")\n  return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the

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specified source of randomness.\n * \n * @throws NoSuchElementException if this array is
empty.\n */\n@SinceKotlin("1.3")\npublic fun ShortArray.random(random: Random): Short {\n    if (isEmpty())\n        throw NoSuchElementException("Array is empty.")\n    return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws\n NoSuchElementException if this array is empty.\n */\n@SinceKotlin("1.3")\npublic fun IntArray.random(random: Random): Int {\n    if (isEmpty())\n        throw NoSuchElementException("Array is empty.")\n    return\n    get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of\n randomness.\n * \n * @throws\n NoSuchElementException if this array is empty.\n */\n@SinceKotlin("1.3")\npublic fun LongArray.random(random: Random): Long {\n    if (isEmpty())\n        throw\n        NoSuchElementException("Array is empty.")\n    return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source\n of randomness.\n * \n * @throws\n NoSuchElementException if this array is empty.\n */\n@SinceKotlin("1.3")\npublic fun FloatArray.random(random: Random): Float {\n    if (isEmpty())\n        throw\n        NoSuchElementException("Array is empty.")\n    return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws\n NoSuchElementException if this array is empty.\n */\n@SinceKotlin("1.3")\npublic fun DoubleArray.random(random: Random): Double {\n    if (isEmpty())\n        throw\n        NoSuchElementException("Array is empty.")\n    return\n    get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of\n randomness.\n * \n * @throws\n NoSuchElementException if this array is empty.\n */\n@SinceKotlin("1.3")\npublic fun BooleanArray.random(random: Random): Boolean {\n    if (isEmpty())\n        throw\n        NoSuchElementException("Array is empty.")\n    return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws\n NoSuchElementException if this array is empty.\n */\n@SinceKotlin("1.3")\npublic fun CharArray.random(random: Random): Char {\n    if (isEmpty())\n        throw\n        NoSuchElementException("Array is empty.")\n    return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.randomOrNull(): T? {\n    return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.randomOrNull(): Byte? {\n    return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.randomOrNull(): Short? {\n    return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.randomOrNull(): Int? {\n    return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.randomOrNull(): Long? {\n    return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.randomOrNull(): Float? {\n    return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.randomOrNull(): Double? {\n    return randomOrNull(Random)\n}\n\n/**\n * Returns a

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random element from this array, or `null` if this array is empty.

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*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.randomOrNull(): Boolean? {\n    return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.randomOrNull(): Char? {\n    return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T> Array<out T>.randomOrNull(random: Random): T? {\n    if (isEmpty())\n        return null\n    return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun ByteArray.randomOrNull(random: Random): Byte? {\n    if (isEmpty())\n        return null\n    return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun ShortArray.randomOrNull(random: Random): Short? {\n    if (isEmpty())\n        return null\n    return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun IntArray.randomOrNull(random: Random): Int? {\n    if (isEmpty())\n        return null\n    return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun LongArray.randomOrNull(random: Random): Long? {\n    if (isEmpty())\n        return null\n    return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun FloatArray.randomOrNull(random: Random): Float? {\n    if (isEmpty())\n        return null\n    return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun DoubleArray.randomOrNull(random: Random): Double? {\n    if (isEmpty())\n        return null\n    return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun BooleanArray.randomOrNull(random: Random): Boolean? {\n    if (isEmpty())\n        return null\n    return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun CharArray.randomOrNull(random: Random): Char? {\n    if (isEmpty())\n        return null\n    return get(random.nextInt(size))\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n
*\n@public fun <T> Array<out T>.single(): T {\n    return when (size) {\n        0 -> throw NoSuchElementException("Array is empty.")\n        1 -> this[0]\n        else -> throw IllegalArgumentException("Array has more than one element.")\n    }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n
*\n@public fun ByteArray.single(): Byte {\n    return when (size) {\n        0 -> throw NoSuchElementException("Array is empty.")\n        1 -> this[0]\n

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element.\n */\npublic fun BooleanArray.singleOrNull(): Boolean? {\n    return if (size == 1) this[0] else
null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic
fun CharArray.singleOrNull(): Char? {\n    return if (size == 1) this[0] else null\n}\n\n/**\n * Returns the single
element matching the given [predicate], or `null` if element was not found or more than one element was found.\n
*/\npublic inline fun <T> Array<out T>.singleOrNull(predicate: (T) -> Boolean): T? {\n    var single: T? = null\n
var found = false\n    for (element in this) {\n        if (predicate(element)) {\n            if (found) return null\n
single = element\n            found = true\n        }\n    }\n    if (!found) return null\n    return single\n}\n\n/**\n *
Returns the single element matching the given [predicate], or `null` if element was not found or more than one
element was found.\n */\npublic inline fun ByteArray.singleOrNull(predicate:
(Byte) -> Boolean): Byte? {\n    var single: Byte? = null\n    var found = false\n    for (element in this) {\n        if
(predicate(element)) {\n            if (found) return null\n            single = element\n            found = true\n        }\n    }\n
if (!found) return null\n    return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or
`null` if element was not found or more than one element was found.\n */\npublic inline fun
ShortArray.singleOrNull(predicate: (Short) -> Boolean): Short? {\n    var single: Short? = null\n    var found =
false\n    for (element in this) {\n        if (predicate(element)) {\n            if (found) return null\n            single =
element\n            found = true\n        }\n    }\n    if (!found) return null\n    return single\n}\n\n/**\n * Returns the
single element matching the given [predicate], or `null` if element was not found or more than one element was
found.\n */\npublic inline fun IntArray.singleOrNull(predicate:
(Int) -> Boolean): Int? {\n    var single: Int? = null\n    var found = false\n    for (element in this) {\n        if
(predicate(element)) {\n            if (found) return null\n            single = element\n            found = true\n        }\n    }\n
if (!found) return null\n    return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or
`null` if element was not found or more than one element was found.\n */\npublic inline fun
LongArray.singleOrNull(predicate: (Long) -> Boolean): Long? {\n    var single: Long? = null\n    var found =
false\n    for (element in this) {\n        if (predicate(element)) {\n            if (found) return null\n            single =
element\n            found = true\n        }\n    }\n    if (!found) return null\n    return single\n}\n\n/**\n * Returns the
single element matching the given [predicate], or `null` if element was not found or more than one element was
found.\n */\npublic inline fun FloatArray.singleOrNull(predicate:
(Float) -> Boolean): Float? {\n    var single: Float? = null\n    var found = false\n    for (element in this) {\n        if
(predicate(element)) {\n            if (found) return null\n            single = element\n            found = true\n        }\n    }\n
if (!found) return null\n    return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or
`null` if element was not found or more than one element was found.\n */\npublic inline fun
DoubleArray.singleOrNull(predicate: (Double) -> Boolean): Double? {\n    var single: Double? = null\n    var found
= false\n    for (element in this) {\n        if (predicate(element)) {\n            if (found) return null\n            single =
element\n            found = true\n        }\n    }\n    if (!found) return null\n    return single\n}\n\n/**\n * Returns the
single element matching the given [predicate], or `null` if element was not found or more than one element was
found.\n */\npublic
inline fun BooleanArray.singleOrNull(predicate: (Boolean) -> Boolean): Boolean? {\n    var single: Boolean? =
null\n    var found = false\n    for (element in this) {\n        if (predicate(element)) {\n            if (found) return null\n
single = element\n            found = true\n        }\n    }\n    if (!found) return null\n    return single\n}\n\n/**\n *
Returns the single element matching the given [predicate], or `null` if element was not found or more than one
element was found.\n */\npublic inline fun CharArray.singleOrNull(predicate: (Char) -> Boolean): Char? {\n    var
single: Char? = null\n    var found = false\n    for (element in this) {\n        if (predicate(element)) {\n            if
(found) return null\n            single = element\n            found = true\n        }\n    }\n    if (!found) return null\n    return
single\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * @throws
IllegalArgumentEception if
[n] is negative.\n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun <T>
Array<out T>.drop(n: Int): List<T> {\n    require(n >= 0) {\n        "Requested element count $n is less than zero." }\n
return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n]

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elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun ByteArray.drop(n: Int): List<Byte> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun ShortArray.drop(n: Int): List<Short> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n]
elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun IntArray.drop(n: Int): List<Int> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun LongArray.drop(n: Int): List<Long> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*\npublic fun FloatArray.drop(n: Int): List<Float> {\n  require(n >= 0) { \"Requested element count $n is less
than zero.\" }\n  return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements
except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun DoubleArray.drop(n: Int): List<Double> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun BooleanArray.drop(n: Int): List<Boolean>
{\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n *\npublic fun
CharArray.drop(n: Int): List<Char> {\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n
return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n]
elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun <T> Array<out T>.dropLast(n: Int): List<T>
{\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*\npublic fun ByteArray.dropLast(n: Int): List<Byte> {\n  require(n >= 0) { \"Requested element count $n is less
than zero.\" }\n  return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except
last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun ShortArray.dropLast(n: Int): List<Short> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun IntArray.dropLast(n: Int): List<Int> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list

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containing all elements except last [n] elements.\n \* \n \* @throws IllegalArgumentException if [n] is negative.\n \* \n \* @sample samples.collections.Collections.Transformations.drop\n \* \n\npublic fun LongArray.dropLast(n: Int): List<Long> {\n require(n >= 0) { \"Requested element count \$n is less than zero.\" }\n return take((size - n).coerceAtLeast(0))\n}\n\n/\*\*\n \* Returns a list containing all elements except last [n] elements.\n \* \n \* @throws IllegalArgumentException if [n] is negative.\n \* \n \* @sample samples.collections.Collections.Transformations.drop\n \* \n\npublic fun FloatArray.dropLast(n: Int): List<Float> {\n require(n >= 0) { \"Requested element count \$n is less than zero.\" }\n return take((size - n).coerceAtLeast(0))\n}\n\n/\*\*\n \* Returns a list containing all elements except last [n] elements.\n \* \n \* @throws IllegalArgumentException if [n] is negative.\n \* \n \* @sample samples.collections.Collections.Transformations.drop\n \* \n\npublic fun DoubleArray.dropLast(n: Int): List<Double> {\n require(n >= 0) { \"Requested element count \$n is less than zero.\" }\n return take((size - n).coerceAtLeast(0))\n}\n\n/\*\*\n \* Returns a list containing all elements except last [n] elements.\n \* \n \* @throws IllegalArgumentException if [n] is negative.\n \* \n \* @sample samples.collections.Collections.Transformations.drop\n \* \n\npublic fun BooleanArray.dropLast(n: Int): List<Boolean> {\n require(n >= 0) { \"Requested element count \$n is less than zero.\" }\n return take((size - n).coerceAtLeast(0))\n}\n\n/\*\*\n \* Returns a list containing all elements except last [n] elements.\n \* \n \* @throws IllegalArgumentException if [n] is negative.\n \* \n \* @sample samples.collections.Collections.Transformations.drop\n \* \n\npublic fun CharArray.dropLast(n: Int): List<Char> {\n require(n >= 0) { \"Requested element count \$n is less than zero.\" }\n return take((size - n).coerceAtLeast(0))\n}\n\n/\*\*\n \* Returns a list containing all elements except last elements that satisfy the given [predicate].\n \* \n \* @sample samples.collections.Collections.Transformations.drop\n \* \n\npublic inline fun <T> Array<out T>.dropLastWhile(predicate: (T) -> Boolean): List<T> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n return take(index + 1)\n }\n }\n return emptyList()\n}\n\n/\*\*\n \* Returns a list containing all elements except last elements that satisfy the given [predicate].\n \* \n \* @sample samples.collections.Collections.Transformations.drop\n \* \n\npublic inline fun ByteArray.dropLastWhile(predicate: (Byte) -> Boolean): List<Byte> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n return take(index + 1)\n }\n }\n return emptyList()\n}\n\n/\*\*\n \* Returns a list containing all elements except last elements that satisfy the given [predicate].\n \* \n \* @sample samples.collections.Collections.Transformations.drop\n \* \n\npublic inline fun ShortArray.dropLastWhile(predicate: (Short) -> Boolean): List<Short> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n return take(index + 1)\n }\n }\n return emptyList()\n}\n\n/\*\*\n \* Returns a list containing all elements except last elements that satisfy the given [predicate].\n \* \n \* @sample samples.collections.Collections.Transformations.drop\n \* \n\npublic inline fun IntArray.dropLastWhile(predicate: (Int) -> Boolean): List<Int> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n return take(index + 1)\n }\n }\n return emptyList()\n}\n\n/\*\*\n \* Returns a list containing all elements except last elements that satisfy the given [predicate].\n \* \n \* @sample samples.collections.Collections.Transformations.drop\n \* \n\npublic inline fun LongArray.dropLastWhile(predicate: (Long) -> Boolean): List<Long> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n return take(index + 1)\n }\n }\n return emptyList()\n}\n\n/\*\*\n \* Returns a list containing all elements except last elements that satisfy the given [predicate].\n \* \n \* @sample samples.collections.Collections.Transformations.drop\n \* \n\npublic inline fun FloatArray.dropLastWhile(predicate: (Float) -> Boolean): List<Float> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n return take(index + 1)\n }\n }\n return emptyList()\n}\n\n/\*\*\n \* Returns a list containing all elements except last elements that satisfy the given [predicate].\n \* \n \* @sample samples.collections.Collections.Transformations.drop\n \* \n\npublic inline fun DoubleArray.dropLastWhile(predicate: (Double) -> Boolean): List<Double> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n return take(index + 1)\n }\n }\n return emptyList()\n}\n\n/\*\*\n \* Returns a list containing



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all elements except last elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *^public inline fun
BooleanArray.dropLastWhile(predicate: (Boolean) -> Boolean): List<Boolean> {\n  for (index in lastIndex
downTo 0) {\n    if (!predicate(this[index])) {\n      return take(index + 1)\n    }\n  }\n  return
emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given
[predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n *^public inline fun
CharArray.dropLastWhile(predicate: (Char) -> Boolean): List<Char> {\n  for (index in lastIndex downTo 0) {\n
if (!predicate(this[index])) {\n    return take(index + 1)\n  }\n}\n  return emptyList()\n}\n\n/**\n *
Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *^public inline fun <T> Array<out T>.dropWhile(predicate: (T) -> Boolean): List<T> {\n  var yielding = false\n  val list = ArrayList<T>()\n  for (item in this)\n    if (yielding)\n      list.add(item)\n    else if
(!predicate(item)) {\n      list.add(item)\n      yielding = true\n    }\n  return list\n}\n\n/**\n * Returns a list
containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *^public inline fun ByteArray.dropWhile(predicate:
(Byte) -> Boolean): List<Byte> {\n  var yielding = false\n  val list = ArrayList<Byte>()\n  for (item in this)\n
if (yielding)\n    list.add(item)\n  else if (!predicate(item)) {\n    list.add(item)\n    yielding =
true\n  }\n  return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the
given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n *^public inline fun
ShortArray.dropWhile(predicate: (Short) -> Boolean): List<Short> {\n  var yielding = false\n  val list =
ArrayList<Short>()\n  for (item in this)\n    if (yielding)\n      list.add(item)\n    else if (!predicate(item))
{\n      list.add(item)\n      yielding = true\n    }\n  return list\n}\n\n/**\n * Returns a list containing all
elements except first elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *^public inline fun IntArray.dropWhile(predicate: (Int) ->
Boolean): List<Int> {\n  var yielding = false\n  val list = ArrayList<Int>()\n  for (item in this)\n    if
(yielding)\n      list.add(item)\n    else if (!predicate(item)) {\n      list.add(item)\n      yielding = true\n
}\n  return list\n}\n\n/**\n * Returns a list containing all elements except
first elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *^public inline fun LongArray.dropWhile(predicate:
(Long) -> Boolean): List<Long> {\n  var yielding = false\n  val list = ArrayList<Long>()\n  for (item in this)\n
if (yielding)\n    list.add(item)\n  else if (!predicate(item)) {\n    list.add(item)\n    yielding =
true\n  }\n  return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the
given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n *^public inline fun
FloatArray.dropWhile(predicate: (Float) -> Boolean): List<Float> {\n  var yielding = false\n  val list =
ArrayList<Float>()\n  for (item in this)\n    if (yielding)\n      list.add(item)\n    else if (!predicate(item))
{\n      list.add(item)\n      yielding = true\n    }\n  return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *^public inline fun DoubleArray.dropWhile(predicate:
(Double) -> Boolean): List<Double> {\n  var yielding = false\n  val list = ArrayList<Double>()\n  for (item in
this)\n    if (yielding)\n      list.add(item)\n    else if (!predicate(item)) {\n      list.add(item)\n
yielding = true\n    }\n  return list\n}\n\n/**\n * Returns a list containing all elements except first elements that
satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n *^public
inline fun BooleanArray.dropWhile(predicate: (Boolean) -> Boolean): List<Boolean> {\n  var yielding = false\n
val list = ArrayList<Boolean>()\n  for (item in this)\n    if (yielding)\n      list.add(item)\n    else if
(!predicate(item)) {\n      list.add(item)\n      yielding = true\n    }\n  return list\n}\n\n/**\n * Returns a list containing all elements
except first elements that satisfy the given [predicate].\n * \n * @sample

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samples.collections.Collections.Transformations.drop\n *^\\npublic inline fun CharArray.dropWhile(predicate:
(Char) -> Boolean): List<Char> {\n  var yielding = false\n  val list = ArrayList<Char>()\n  for (item in this)\n  if (yielding)\n    list.add(item)\n  else if (!predicate(item)) {\n    list.add(item)\n    yielding =
true\n  }\n  return list\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n *
\n * @sample samples.collections.Collections.Filtering.filter\n *^\\npublic inline fun <T> Array<out
T>.filter(predicate: (T) -> Boolean): List<T> {\n  return filterTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Returns
a list containing only elements matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n
*^\\npublic inline fun ByteArray.filter(predicate: (Byte) -> Boolean): List<Byte> {\n  return
filterTo(ArrayList<Byte>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given
[predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n *^\\npublic inline fun
ShortArray.filter(predicate: (Short) -> Boolean): List<Short> {\n  return filterTo(ArrayList<Short>(),
predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n *^\\npublic inline fun IntArray.filter(predicate: (Int) -> Boolean):
List<Int> {\n  return filterTo(ArrayList<Int>(), predicate)\n}\n\n/**\n * Returns a list containing only elements
matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n *^\\npublic inline
fun LongArray.filter(predicate: (Long) -> Boolean): List<Long> {\n  return filterTo(ArrayList<Long>(),
predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n *^\\npublic inline fun FloatArray.filter(predicate: (Float) ->
Boolean): List<Float> {\n  return filterTo(ArrayList<Float>(), predicate)\n}\n\n/**\n * Returns a list containing
only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n
*^\\npublic inline fun DoubleArray.filter(predicate: (Double) -> Boolean): List<Double> {\n  return
filterTo(ArrayList<Double>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given
[predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n *^\\npublic inline fun
BooleanArray.filter(predicate: (Boolean) -> Boolean): List<Boolean> {\n  return filterTo(ArrayList<Boolean>(),
predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n
* \n * @sample samples.collections.Collections.Filtering.filter\n *^\\npublic inline fun CharArray.filter(predicate:
(Char) -> Boolean): List<Char> {\n  return filterTo(ArrayList<Char>(), predicate)\n}\n\n/**\n * Returns a list
containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an
element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexed\n *^\\npublic inline fun <T> Array<out
T>.filterIndexed(predicate: (index: Int, T) -> Boolean): List<T> {\n  return filterIndexedTo(ArrayList<T>(),
predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param
[predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate
evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n
*^\\npublic inline fun ByteArray.filterIndexed(predicate: (index: Int, Byte) -> Boolean): List<Byte> {\n  return
filterIndexedTo(ArrayList<Byte>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the
given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and
returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexed\n *^\\npublic inline fun ShortArray.filterIndexed(predicate:
(index: Int, Short) -> Boolean): List<Short> {\n  return filterIndexedTo(ArrayList<Short>(), predicate)\n}\n\n/**\n
* Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes
the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n *
\n * @sample samples.collections.Collections.Filtering.filterIndexed\n *^\\npublic inline fun
IntArray.filterIndexed(predicate:
(index: Int, Int) -> Boolean): List<Int> {\n  return filterIndexedTo(ArrayList<Int>(), predicate)\n}\n\n/**\n
* Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes
the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n *
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* @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun
LongArray.filterIndexed(predicate: (index: Int, Long) -> Boolean): List<Long> {\n  return
filterIndexedTo(ArrayList<Long>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the
given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and
returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun FloatArray.filterIndexed(predicate:
(index: Int, Float) ->
Boolean): List<Float> {\n  return filterIndexedTo(ArrayList<Float>(), predicate)\n}\n\n/**\n * Returns a list
containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an
element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun DoubleArray.filterIndexed(predicate:
(index: Int, Double) -> Boolean): List<Double> {\n  return filterIndexedTo(ArrayList<Double>(),
predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param
[predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate
evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic
inline fun BooleanArray.filterIndexed(predicate: (index: Int, Boolean) -> Boolean): List<Boolean> {\n
  return filterIndexedTo(ArrayList<Boolean>(), predicate)\n}\n\n/**\n * Returns a list containing only elements
matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element
itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun CharArray.filterIndexed(predicate:
(index: Int, Char) -> Boolean): List<Char> {\n  return filterIndexedTo(ArrayList<Char>(), predicate)\n}\n\n/**\n *
Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that
takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the
element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <T, C :
MutableCollection<in T>> Array<out T>.filterIndexedTo(destination: C, predicate: (index: Int, T) -> Boolean):
C {\n  forEachIndexed { index, element ->\n    if (predicate(index, element)) destination.add(element)\n  }\n  return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Byte>> ByteArray.filterIndexedTo(destination: C, predicate:
(index: Int, Byte) -> Boolean): C {\n  forEachIndexed { index, element ->\n    if (predicate(index, element))
destination.add(element)\n  }\n  return destination\n}\n\n/**\n * Appends all elements matching the given
[predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the
element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Short>> ShortArray.filterIndexedTo(destination: C, predicate: (index: Int, Short) ->
Boolean): C {\n  forEachIndexed { index, element ->\n    if (predicate(index, element))
destination.add(element)\n  }\n  return destination\n}\n\n/**\n * Appends all elements matching the given
[predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the
element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Int>>
IntArray.filterIndexedTo(destination: C, predicate: (index: Int, Int) -> Boolean): C {\n  forEachIndexed { index,
element ->\n    if (predicate(index, element)) destination.add(element)\n  }\n  return destination\n}\n\n/**\n *
Appends all elements
matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an
element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Long>>
LongArray.filterIndexedTo(destination: C, predicate: (index: Int, Long) -> Boolean): C {\n  forEachIndexed {

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index, element ->\n    if (predicate(index, element)) destination.add(element)\n    }\n    return
destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n *
@param [predicate] function that takes the index of an element and the element itself\n * and returns the result of
predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n
*/\npublic inline fun <C : MutableCollection<in Float>> FloatArray.filterIndexedTo(destination:
C, predicate: (index: Int, Float) -> Boolean): C {\n    forEachIndexed { index, element ->\n        if (predicate(index,
element)) destination.add(element)\n    }\n    return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n *
@param [predicate] function that takes the index of an element and
the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexedTo\n
*/\npublic inline fun <C : MutableCollection<in
Double>> DoubleArray.filterIndexedTo(destination: C, predicate: (index: Int, Double) -> Boolean): C {\n    forEachIndexed { index, element ->\n        if (predicate(index, element)) destination.add(element)\n    }\n    return
destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n *
@param [predicate] function that takes the index of an element and the element itself\n * and returns
the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexedTo\n
*/\npublic inline fun <C : MutableCollection<in
Boolean>> BooleanArray.filterIndexedTo(destination: C, predicate: (index: Int, Boolean) -> Boolean): C {\n    forEachIndexed { index, element ->\n        if (predicate(index, element)) destination.add(element)\n    }\n    return
destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n *
@param [predicate] function that takes the index of an element and the element itself\n * and returns the result of
predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n
*/\npublic inline fun <C : MutableCollection<in Char>> CharArray.filterIndexedTo(destination: C, predicate:
(index: Int, Char) -> Boolean): C {\n    forEachIndexed { index, element ->\n        if (predicate(index, element))
destination.add(element)\n    }\n    return destination\n}\n\n/**\n * Returns a list containing all elements that are instances of specified type
parameter R.\n * \n * @sample samples.collections.Collections.Filtering.filterIsInstance\n
*/\npublic inline fun
<reified R> Array<*>.filterIsInstance(): List<@kotlin.internal.NoInfer R> {\n    return
filterIsInstanceTo(ArrayList<R>())\n}\n\n/**\n * Appends all elements that are instances of specified type
parameter R to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterIsInstanceTo\n
*/\npublic inline fun <reified R, C :
MutableCollection<in R>> Array<*>.filterIsInstanceTo(destination: C): C {\n    for (element in this) if (element is
R) destination.add(element)\n    return destination\n}\n\n/**\n * Returns a list containing all elements not matching
the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n
*/\npublic inline fun <T>
Array<out T>.filterNot(predicate: (T) -> Boolean): List<T> {\n    return filterNotTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the
given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n
*/\npublic inline fun
ByteArray.filterNot(predicate: (Byte) -> Boolean): List<Byte> {\n    return filterNotTo(ArrayList<Byte>(),
predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n
*/\npublic inline fun ShortArray.filterNot(predicate: (Short) ->
Boolean): List<Short> {\n    return filterNotTo(ArrayList<Short>(), predicate)\n}\n\n/**\n * Returns a list
containing all elements not matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n
*/\npublic inline fun IntArray.filterNot(predicate: (Int) -> Boolean):
List<Int> {\n    return filterNotTo(ArrayList<Int>(), predicate)\n}\n\n/**\n * Returns a list containing all elements
not matching
the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n
*/\npublic inline fun
LongArray.filterNot(predicate: (Long) -> Boolean): List<Long> {\n    return filterNotTo(ArrayList<Long>(),
predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n
*/\npublic inline fun FloatArray.filterNot(predicate: (Float) ->

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Boolean): List<Float> {\n  return filterNotTo(ArrayList<Float>(), predicate)\n}\n\n/**\n * Returns a list
containing all elements not matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n */\npublic inline fun DoubleArray.filterNot(predicate: (Double) ->
Boolean): List<Double> {\n  return filterNotTo(ArrayList<Double>(), predicate)\n}\n\n/**\n * Returns a list
containing all elements not matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n */\npublic
inline fun BooleanArray.filterNot(predicate: (Boolean) -> Boolean): List<Boolean> {\n  return
filterNotTo(ArrayList<Boolean>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the
given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun
CharArray.filterNot(predicate: (Char) -> Boolean): List<Char> {\n  return filterNotTo(ArrayList<Char>(),
predicate)\n}\n\n/**\n * Returns a list containing all elements that are not `null`.\n * \n * @sample
samples.collections.Collections.Filtering.filterNotNull\n */\npublic fun <T : Any> Array<out T?>.filterNotNull():
List<T> {\n  return filterNotNullTo(ArrayList<T?>())\n}\n\n/**\n * Appends all elements that are not `null` to the
given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterNotNullTo\n */\npublic fun <C
: MutableCollection<in T>, T : Any> Array<out T?>.filterNotNullTo(destination: C): C {\n  for (element in this) if
(element != null) destination.add(element)\n  return destination\n}\n\n/**\n * Appends all elements not matching
the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n
*/\npublic inline fun <T, C : MutableCollection<in T>> Array<out T>.filterNotTo(destination: C, predicate: (T) ->
Boolean): C {\n  for (element in this) if (!predicate(element)) destination.add(element)\n  return
destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n *
@sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in
Byte>> ByteArray.filterNotTo(destination: C, predicate: (Byte) -> Boolean): C {\n  for (element in this) if
(!predicate(element)) destination.add(element)\n  return destination\n}\n\n/**\n * Appends all elements not
matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n
*/\npublic inline fun <C : MutableCollection<in Short>> ShortArray.filterNotTo(destination: C, predicate: (Short) -
> Boolean): C {\n  for (element in this) if (!predicate(element)) destination.add(element)\n  return
destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n *
@sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Int>>
IntArray.filterNotTo(destination: C, predicate: (Int) -> Boolean): C {\n  for (element in this) if
(!predicate(element)) destination.add(element)\n  return destination\n}\n\n/**\n * Appends all elements not
matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Long>>
LongArray.filterNotTo(destination: C, predicate: (Long) -> Boolean): C {\n  for (element in this) if
(!predicate(element))
destination.add(element)\n  return destination\n}\n\n/**\n * Appends all elements not matching the given
[predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n
*/\npublic inline fun <C : MutableCollection<in Float>> FloatArray.filterNotTo(destination: C, predicate: (Float) ->
Boolean): C {\n  for (element in this) if (!predicate(element)) destination.add(element)\n  return
destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n *
@sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in
Double>> DoubleArray.filterNotTo(destination: C, predicate: (Double) -> Boolean): C {\n  for (element in this) if
(!predicate(element)) destination.add(element)\n  return destination\n}\n\n/**\n * Appends all elements not
matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n
*/\npublic inline fun <C : MutableCollection<in Boolean>> BooleanArray.filterNotTo(destination: C, predicate:
(Boolean) -> Boolean): C {\n  for (element in this) if (!predicate(element)) destination.add(element)\n  return
destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n *
@sample

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@sample samples.collections.Collections.Filtering.filterTo\n *^\npublic inline fun <C : MutableCollection<in
Char>> CharArray.filterNotTo(destination: C, predicate: (Char) -> Boolean): C {\n  for (element in this) if
(!predicate(element)) destination.add(element)\n  return destination\n}\n\n/**\n * Appends all elements matching
the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n
*^\npublic inline fun <T, C : MutableCollection<in T>> Array<out T>.filterTo(destination: C, predicate: (T) ->
Boolean): C {\n  for (element in this) if (predicate(element)) destination.add(element)\n
return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n
\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n *^\npublic inline fun <C : MutableCollection<in
Byte>> ByteArray.filterTo(destination: C, predicate: (Byte) -> Boolean): C {\n  for (element in this) if
(predicate(element)) destination.add(element)\n  return destination\n}\n\n/**\n * Appends all elements matching
the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n
*^\npublic inline fun <C : MutableCollection<in Short>> ShortArray.filterTo(destination: C, predicate: (Short) ->
Boolean): C {\n  for (element in this) if (predicate(element)) destination.add(element)\n  return
destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n *
\n * @sample samples.collections.Collections.Filtering.filterTo\n *^\npublic
inline fun <C : MutableCollection<in Int>> IntArray.filterTo(destination: C, predicate: (Int) -> Boolean): C {\n
for (element in this) if (predicate(element)) destination.add(element)\n  return destination\n}\n\n/**\n * Appends
all elements matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n *^\npublic inline fun <C : MutableCollection<in Long>>
LongArray.filterTo(destination: C, predicate: (Long) -> Boolean): C {\n  for (element in this) if
(predicate(element)) destination.add(element)\n  return destination\n}\n\n/**\n * Appends all elements matching
the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n
*^\npublic inline fun <C : MutableCollection<in Float>> FloatArray.filterTo(destination: C, predicate: (Float) ->
Boolean): C {\n  for (element in this) if (predicate(element)) destination.add(element)\n  return
destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n *
\n * @sample samples.collections.Collections.Filtering.filterTo\n *^\npublic inline fun <C : MutableCollection<in
Double>> DoubleArray.filterTo(destination: C, predicate: (Double) -> Boolean): C {\n  for (element in this) if
(predicate(element)) destination.add(element)\n  return destination\n}\n\n/**\n * Appends all elements matching
the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n
*^\npublic inline fun <C : MutableCollection<in Boolean>> BooleanArray.filterTo(destination: C, predicate:
(Boolean) -> Boolean): C {\n  for (element in this) if (predicate(element)) destination.add(element)\n  return
destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n *
\n * @sample samples.collections.Collections.Filtering.filterTo\n *^\npublic inline fun <C : MutableCollection<in
Char>> CharArray.filterTo(destination: C, predicate: (Char) -> Boolean): C {\n  for (element in this) if
(predicate(element)) destination.add(element)\n  return destination\n}\n\n/**\n * Returns a list containing elements
at indices in the specified [indices] range.\n *^\npublic fun <T> Array<out T>.slice(indices: IntRange): List<T> {\n
if (indices.isEmpty()) return listOf()\n  return copyOfRange(indices.start, indices.endInclusive +
1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n *^\npublic
fun ByteArray.slice(indices: IntRange): List<Byte> {\n  if (indices.isEmpty()) return listOf()\n  return
copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at
indices in the specified [indices] range.\n *^\npublic fun ShortArray.slice(indices: IntRange): List<Short> {\n  if
(indices.isEmpty()) return listOf()\n  return copyOfRange(indices.start, indices.endInclusive
+ 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n *^\npublic
fun IntArray.slice(indices: IntRange): List<Int> {\n  if (indices.isEmpty()) return listOf()\n  return
copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at
indices in the specified [indices] range.\n *^\npublic fun LongArray.slice(indices: IntRange): List<Long> {\n  if
(indices.isEmpty()) return listOf()\n  return copyOfRange(indices.start, indices.endInclusive +

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1).asList()\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic
fun FloatArray.slice(indices: IntRange): List<Float> {\n    if (indices.isEmpty()) return listOf()\n    return
copyOfRange(indices.start, indices.endInclusive + 1).asList()\n\n}\n\n/**\n * Returns a list containing elements at
indices in the specified [indices] range.\n */\npublic fun DoubleArray.slice(indices: IntRange):
List<Double> {\n    if (indices.isEmpty()) return listOf()\n    return copyOfRange(indices.start, indices.endInclusive
+ 1).asList()\n\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic
fun BooleanArray.slice(indices: IntRange): List<Boolean> {\n    if (indices.isEmpty()) return listOf()\n    return
copyOfRange(indices.start, indices.endInclusive + 1).asList()\n\n}\n\n/**\n * Returns a list containing elements at
indices in the specified [indices] range.\n */\npublic fun CharArray.slice(indices: IntRange): List<Char> {\n    if
(indices.isEmpty()) return listOf()\n    return copyOfRange(indices.start, indices.endInclusive +
1).asList()\n\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun <T> Array<out
T>.slice(indices: Iterable<Int>): List<T> {\n    val size = indices.collectionSizeOrDefault(10)\n    if (size == 0)
return emptyList()\n    val list = ArrayList<T>(size)\n    for (index in indices) {\n
list.add(get(index))\n    }\n    return list\n\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun ByteArray.slice(indices: Iterable<Int>): List<Byte> {\n    val size =
indices.collectionSizeOrDefault(10)\n    if (size == 0) return emptyList()\n    val list = ArrayList<Byte>(size)\n    for
(index in indices) {\n        list.add(get(index))\n    }\n    return list\n\n}\n\n/**\n * Returns a list containing elements at
specified [indices].\n */\npublic fun ShortArray.slice(indices: Iterable<Int>): List<Short> {\n    val size =
indices.collectionSizeOrDefault(10)\n    if (size == 0) return emptyList()\n    val list = ArrayList<Short>(size)\n
for (index in indices) {\n        list.add(get(index))\n    }\n    return list\n\n}\n\n/**\n * Returns a list containing
elements at specified [indices].\n */\npublic fun IntArray.slice(indices: Iterable<Int>): List<Int> {\n    val size =
indices.collectionSizeOrDefault(10)\n    if (size == 0) return emptyList()\n
val list = ArrayList<Int>(size)\n    for (index in indices) {\n        list.add(get(index))\n    }\n    return
list\n\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun LongArray.slice(indices:
Iterable<Int>): List<Long> {\n    val size = indices.collectionSizeOrDefault(10)\n    if (size == 0) return
emptyList()\n    val list = ArrayList<Long>(size)\n    for (index in indices) {\n        list.add(get(index))\n    }\n
return list\n\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun
FloatArray.slice(indices: Iterable<Int>): List<Float> {\n    val size = indices.collectionSizeOrDefault(10)\n    if (size
== 0) return emptyList()\n    val list = ArrayList<Float>(size)\n    for (index in indices) {\n
list.add(get(index))\n    }\n    return list\n\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun DoubleArray.slice(indices: Iterable<Int>): List<Double> {\n    val size
= indices.collectionSizeOrDefault(10)\n    if (size == 0) return emptyList()\n    val list = ArrayList<Double>(size)\n
for (index in indices) {\n        list.add(get(index))\n    }\n    return list\n\n}\n\n/**\n * Returns a list containing
elements at specified [indices].\n */\npublic fun BooleanArray.slice(indices: Iterable<Int>): List<Boolean> {\n    val
size = indices.collectionSizeOrDefault(10)\n    if (size == 0) return emptyList()\n    val list =
ArrayList<Boolean>(size)\n    for (index in indices) {\n        list.add(get(index))\n    }\n    return list\n\n}\n\n/**\n *
Returns a list containing elements at specified [indices].\n */\npublic fun CharArray.slice(indices: Iterable<Int>):
List<Char> {\n    val size = indices.collectionSizeOrDefault(10)\n    if (size == 0) return emptyList()\n    val list =
ArrayList<Char>(size)\n    for (index in indices) {\n        list.add(get(index))\n    }\n    return list\n\n}\n\n/**\n *
Returns an array containing elements of this array at specified
[indices].\n */\npublic fun <T> Array<T>.sliceArray(indices: Collection<Int>): Array<T> {\n    val result =
arrayOfNulls(this, indices.size)\n    var targetIndex = 0\n    for (sourceIndex in indices) {\n
result[targetIndex++] = this[sourceIndex]\n    }\n    return result\n\n}\n\n/**\n * Returns an array containing elements
of this array at specified [indices].\n */\npublic fun ByteArray.sliceArray(indices: Collection<Int>): ByteArray {\n
val result = ByteArray(indices.size)\n    var targetIndex = 0\n    for (sourceIndex in indices) {\n
result[targetIndex++] = this[sourceIndex]\n    }\n    return result\n\n}\n\n/**\n * Returns an array containing elements
of this array at specified [indices].\n */\npublic fun ShortArray.sliceArray(indices: Collection<Int>): ShortArray {\n
val result = ShortArray(indices.size)\n    var targetIndex = 0\n    for (sourceIndex in indices) {\n

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result[targetIndex++] = this[sourceIndex]\n    }\n    return result\n}\n\n/**\n * Returns
an array containing elements of this array at specified [indices].\n */\npublic fun IntArray.sliceArray(indices:
Collection<Int>): IntArray {\n    val result = IntArray(indices.size)\n    var targetIndex = 0\n    for (sourceIndex in
indices) {\n        result[targetIndex++] = this[sourceIndex]\n    }\n    return result\n}\n\n/**\n * Returns an array
containing elements of this array at specified [indices].\n */\npublic fun LongArray.sliceArray(indices:
Collection<Int>): LongArray {\n    val result = LongArray(indices.size)\n    var targetIndex = 0\n    for (sourceIndex
in indices) {\n        result[targetIndex++] = this[sourceIndex]\n    }\n    return result\n}\n\n/**\n * Returns an array
containing elements of this array at specified [indices].\n */\npublic fun FloatArray.sliceArray(indices:
Collection<Int>): FloatArray {\n    val result = FloatArray(indices.size)\n    var targetIndex = 0\n    for (sourceIndex
in indices) {\n        result[targetIndex++] = this[sourceIndex]\n    }\n    return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic
fun DoubleArray.sliceArray(indices: Collection<Int>): DoubleArray {\n    val result = DoubleArray(indices.size)\n
var targetIndex = 0\n    for (sourceIndex in indices) {\n        result[targetIndex++] = this[sourceIndex]\n    }\n
return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun
BooleanArray.sliceArray(indices: Collection<Int>): BooleanArray {\n    val result = BooleanArray(indices.size)\n
var targetIndex = 0\n    for (sourceIndex in indices) {\n        result[targetIndex++] = this[sourceIndex]\n    }\n
return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun
CharArray.sliceArray(indices: Collection<Int>): CharArray {\n    val result = CharArray(indices.size)\n    var
targetIndex = 0\n    for (sourceIndex in indices) {\n
result[targetIndex++] = this[sourceIndex]\n    }\n    return result\n}\n\n/**\n * Returns an array containing
elements at indices in the specified [indices] range.\n */\npublic fun <T> Array<T>.sliceArray(indices: IntRange):
Array<T> {\n    if (indices.isEmpty()) return copyOfRange(0, 0)\n    return copyOfRange(indices.start,
indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices]
range.\n */\npublic fun ByteArray.sliceArray(indices: IntRange): ByteArray {\n    if (indices.isEmpty()) return
ByteArray(0)\n    return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array
containing elements at indices in the specified [indices] range.\n */\npublic fun ShortArray.sliceArray(indices:
IntRange): ShortArray {\n    if (indices.isEmpty()) return ShortArray(0)\n    return copyOfRange(indices.start,
indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices]
range.\n */\npublic fun IntArray.sliceArray(indices: IntRange): IntArray {\n    if (indices.isEmpty()) return
IntArray(0)\n    return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array
containing elements at indices in the specified [indices] range.\n */\npublic fun LongArray.sliceArray(indices:
IntRange): LongArray {\n    if (indices.isEmpty()) return LongArray(0)\n    return copyOfRange(indices.start,
indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices]
range.\n */\npublic fun FloatArray.sliceArray(indices: IntRange): FloatArray {\n    if (indices.isEmpty()) return
FloatArray(0)\n    return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array
containing elements at indices in the specified [indices] range.\n */\npublic fun DoubleArray.sliceArray(indices:
IntRange): DoubleArray {\n    if (indices.isEmpty()) return DoubleArray(0)\n    return copyOfRange(indices.start,
indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices]
range.\n */\npublic fun BooleanArray.sliceArray(indices: IntRange): BooleanArray {\n    if (indices.isEmpty())
return BooleanArray(0)\n    return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an
array containing elements at indices in the specified [indices] range.\n */\npublic fun CharArray.sliceArray(indices:
IntRange): CharArray {\n    if (indices.isEmpty()) return CharArray(0)\n    return copyOfRange(indices.start,
indices.endInclusive + 1)\n}\n\n/**\n * Returns a list containing first [n] elements.\n * @throws
IllegalArgumentOutOfRangeException if [n] is negative.\n * @sample
samples.collections.Collections.Transformations.take\n */\npublic fun <T> Array<out T>.take(n: Int): List<T> {\n
require(n >= 0) {"Requested element count $n is less than zero." }\n    if (n == 0) return emptyList()\n    if (n >=
size) return toList()\n}

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    if (n == 1) return listOf(this[0])\n    var count = 0\n    val list = ArrayList<T>(n)\n    for (item in this) {\n
list.add(item)\n    if (++count == n)\n        break\n    }\n    return list\n}\n\n/**\n * Returns a list containing first
[n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*/\n\npublic fun ByteArray.take(n: Int): List<Byte> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    if (n >=
size) return toList()\n    if (n == 1) return listOf(this[0])\n    var count = 0\n    val list = ArrayList<Byte>(n)\n    for
(item in this) {\n        list.add(item)\n        if (++count == n)\n            break\n    }\n    return list\n}\n\n/**\n * Returns
a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*/\n\npublic fun ShortArray.take(n: Int): List<Short> {\n
require(n >= 0) { \"Requested element count $n is less
than zero.\" }\n    if (n == 0) return emptyList()\n    if (n >= size) return toList()\n    if (n == 1) return
listOf(this[0])\n    var count = 0\n    val list = ArrayList<Short>(n)\n    for (item in this) {\n        list.add(item)\n
if (++count == n)\n        break\n    }\n    return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n *
@throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*/\n\npublic fun IntArray.take(n: Int): List<Int> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    if (n >=
size) return toList()\n    if (n == 1) return listOf(this[0])\n    var count = 0\n    val list = ArrayList<Int>(n)\n    for
(item in this) {\n        list.add(item)\n        if (++count == n)\n            break\n    }\n    return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*/\n\npublic fun LongArray.take(n: Int): List<Long> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    if (n >=
size) return toList()\n    if (n == 1) return listOf(this[0])\n    var count = 0\n    val list = ArrayList<Long>(n)\n    for
(item in this) {\n        list.add(item)\n        if (++count == n)\n            break\n    }\n    return list\n}\n\n/**\n * Returns
a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*/\n\npublic fun FloatArray.take(n: Int): List<Float> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    if (n >=
size) return toList()\n    if (n == 1) return listOf(this[0])\n    var count = 0\n    val list =
ArrayList<Float>(n)\n    for (item in this) {\n        list.add(item)\n        if (++count == n)\n            break\n    }\n
return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if
[n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n
*/\n\npublic fun DoubleArray.take(n: Int): List<Double> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    if (n >=
size) return toList()\n    if (n == 1) return listOf(this[0])\n    var
count = 0\n    val list = ArrayList<Double>(n)\n    for (item in this) {\n        list.add(item)\n        if (++count == n)\n
        break\n    }\n    return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*/\n\npublic fun BooleanArray.take(n: Int): List<Boolean>
{\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    if (n >=
size) return toList()\n    if (n == 1) return listOf(this[0])\n    var count = 0\n    val list = ArrayList<Boolean>(n)\n    for
(item in this) {\n        list.add(item)\n        if (++count == n)\n            break\n    }\n    return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n
*/\n\npublic fun CharArray.take(n: Int): List<Char>
{\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    if (n >=
size) return toList()\n    if (n == 1) return listOf(this[0])\n    var count = 0\n    val list = ArrayList<Char>(n)\n    for
(item in this) {\n        list.add(item)\n        if (++count == n)\n            break\n    }\n    return list\n}\n\n/**\n * Returns a list containing
last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*/\n\npublic fun <T> Array<out T>.takeLast(n: Int): List<T>

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{\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return emptyList()\n  val size = size\n  if (n >= size) return toList()\n  if (n == 1) return listOf(this[size - 1])\n  val list = ArrayList<T>(n)\n  for (index in size - n until size)\n    list.add(this[index])\n  return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun ByteArray.takeLast(n: Int): List<Byte> {\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return emptyList()\n  val size = size\n  if (n >= size) return toList()\n  if (n == 1) return listOf(this[size - 1])\n  val list = ArrayList<Byte>(n)\n  for (index in size - n until size)\n    list.add(this[index])\n  return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun ShortArray.takeLast(n: Int): List<Short> {\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return emptyList()\n  val size = size\n  if (n >= size) return toList()\n  if (n == 1) return listOf(this[size - 1])\n  val list = ArrayList<Short>(n)\n  for (index in size - n until size)\n    list.add(this[index])\n  return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun IntArray.takeLast(n: Int): List<Int> {\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return emptyList()\n  val size = size\n  if (n >= size) return toList()\n  if (n == 1) return listOf(this[size - 1])\n  val list = ArrayList<Int>(n)\n  for (index in size - n until size)\n    list.add(this[index])\n  return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun LongArray.takeLast(n: Int): List<Long> {\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return emptyList()\n  val size = size\n  if (n >= size) return toList()\n  if (n == 1) return listOf(this[size - 1])\n  val list = ArrayList<Long>(n)\n  for (index in size - n until size)\n    list.add(this[index])\n  return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun FloatArray.takeLast(n: Int): List<Float> {\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return emptyList()\n  val size = size\n  if (n >= size) return toList()\n  if (n == 1) return listOf(this[size - 1])\n  val list = ArrayList<Float>(n)\n  for (index in size - n until size)\n    list.add(this[index])\n  return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun DoubleArray.takeLast(n: Int): List<Double> {\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return emptyList()\n  val size = size\n  if (n >= size) return toList()\n  if (n == 1) return listOf(this[size - 1])\n  val list = ArrayList<Double>(n)\n  for (index in size - n until size)\n    list.add(this[index])\n  return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun BooleanArray.takeLast(n: Int): List<Boolean> {\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return emptyList()\n  val size = size\n  if (n >= size) return toList()\n  if (n == 1) return listOf(this[size - 1])\n  val list = ArrayList<Boolean>(n)\n  for (index in size - n until size)\n    list.add(this[index])\n  return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun CharArray.takeLast(n: Int): List<Char> {\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return emptyList()\n  val size = size\n  if (n >= size) return toList()\n  if (n == 1) return listOf(this[size - 1])\n  val list = ArrayList<Char>(n)\n  for (index in size - n until size)\n    list.add(this[index])\n  return list\n}\n\n/**\n * Returns a list containing last elements satisfying the given

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[predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n *\npublic inline fun <T>
Array<out T>.takeLastWhile(predicate: (T) -> Boolean): List<T> {\n for (index in lastIndex downTo 0) {\n if
(!predicate(this[index])) {\n return drop(index + 1)\n }\n }\n return toList()\n}\n\n/**\n * Returns a
list containing last elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic inline fun ByteArray.takeLastWhile(predicate:
(Byte) -> Boolean): List<Byte> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n
return drop(index + 1)\n }\n }\n return toList()\n}\n\n/**\n * Returns a list containing last elements
satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n *\npublic
inline fun ShortArray.takeLastWhile(predicate: (Short) -> Boolean): List<Short> {\n for (index in lastIndex
downTo 0) {\n if (!predicate(this[index])) {\n return drop(index + 1)\n }\n }\n return
toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic inline fun IntArray.takeLastWhile(predicate: (Int)
-> Boolean): List<Int> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n return
drop(index + 1)\n }\n }\n return
toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic inline fun LongArray.takeLastWhile(predicate:
(Long) -> Boolean): List<Long> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n
return drop(index + 1)\n }\n }\n return toList()\n}\n\n/**\n * Returns a list containing last elements
satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n *\npublic
inline fun FloatArray.takeLastWhile(predicate: (Float) -> Boolean): List<Float> {\n for (index in lastIndex
downTo 0) {\n if (!predicate(this[index])) {\n return drop(index + 1)\n }\n }\n return
toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic
inline fun DoubleArray.takeLastWhile(predicate: (Double) -> Boolean): List<Double> {\n for (index in lastIndex
downTo 0) {\n if (!predicate(this[index])) {\n return drop(index + 1)\n }\n }\n return
toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic inline fun
BooleanArray.takeLastWhile(predicate: (Boolean) -> Boolean): List<Boolean> {\n for (index in lastIndex
downTo 0) {\n if (!predicate(this[index])) {\n return drop(index + 1)\n }\n }\n return
toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic inline fun CharArray.takeLastWhile(predicate:
(Char) -> Boolean): List<Char> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n
return drop(index + 1)\n }\n }\n return toList()\n}\n\n/**\n * Returns a list containing first elements
satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n *\npublic
inline fun <T> Array<out T>.takeWhile(predicate: (T) -> Boolean): List<T> {\n val list = ArrayList<T>()\n for
(item in this) {\n if (!predicate(item))\n break\n list.add(item)\n }\n return list\n}\n\n/**\n *
Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic inline fun ByteArray.takeWhile(predicate: (Byte)
-> Boolean): List<Byte> {\n val list = ArrayList<Byte>()\n for (item in this) {\n if (!predicate(item))\n
break\n list.add(item)\n }\n return list\n}\n\n/**\n * Returns a list containing first elements satisfying the
given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n
*\npublic inline fun ShortArray.takeWhile(predicate: (Short) -> Boolean): List<Short> {\n val list =
ArrayList<Short>()\n for (item in this) {\n if (!predicate(item))\n break\n list.add(item)\n }\n
return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic inline fun IntArray.takeWhile(predicate: (Int) ->
Boolean): List<Int> {\n val list = ArrayList<Int>()\n for (item in this) {\n if (!predicate(item))\n
break\n list.add(item)\n }\n return list\n}\n\n/**\n * Returns a list containing first elements satisfying the
given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n *\npublic inline fun

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LongArray.takeWhile(predicate: (Long) -> Boolean): List<Long> {\n  val list = ArrayList<Long>()\n  for (item\n  in this) {\n    if\n    (!predicate(item))\n      break\n      list.add(item)\n  }\n  return list\n}\n\n/**\n * Returns a list containing\n first elements satisfying the given [predicate].\n *\n * @sample\n samples.collections.Collections.Transformations.take\n */\n\npublic inline fun FloatArray.takeWhile(predicate:\n (Float) -> Boolean): List<Float> {\n  val list = ArrayList<Float>()\n  for (item in this) {\n    if\n    (!predicate(item))\n      break\n      list.add(item)\n  }\n  return list\n}\n\n/**\n * Returns a list containing first\n elements satisfying the given [predicate].\n *\n * @sample\n samples.collections.Collections.Transformations.take\n */\n\npublic inline fun DoubleArray.takeWhile(predicate: (Double) -> Boolean): List<Double> {\n  val list =\n  ArrayList<Double>()\n  for (item in this) {\n    if (!predicate(item))\n      break\n      list.add(item)\n  }\n  return list\n}\n\n/**\n * Returns a list containing first elements\n satisfying the given [predicate].\n *\n * @sample\n samples.collections.Collections.Transformations.take\n */\n\npublic inline fun\n BooleanArray.takeWhile(predicate: (Boolean) -> Boolean): List<Boolean> {\n  val list = ArrayList<Boolean>()\n  for (item in this) {\n    if (!predicate(item))\n      break\n      list.add(item)\n  }\n  return list\n}\n\n/**\n * Returns a list containing first elements\n satisfying the given [predicate].\n *\n * @sample\n samples.collections.Collections.Transformations.take\n */\n\npublic inline fun CharArray.takeWhile(predicate: (Char)\n -> Boolean): List<Char> {\n  val list = ArrayList<Char>()\n  for (item in this) {\n    if (!predicate(item))\n      break\n      list.add(item)\n  }\n  return list\n}\n\n/**\n * Reverses elements in the array in-place.\n */\n\npublic fun <T> Array<T>.reverse(): Unit {\n  val midPoint = (size / 2) - 1\n  if (midPoint < 0) return\n  var\n  reverseIndex = lastIndex\n  for (index in 0..midPoint) {\n    val tmp = this[index]\n    this[index] = this[reverseIndex]\n    this[reverseIndex] = tmp\n    reverseIndex--\n  }\n}\n\n/**\n * Reverses elements in the array in-place.\n */\n\npublic fun ByteArray.reverse(): Unit {\n  val midPoint = (size / 2) -\n  1\n  if (midPoint < 0) return\n  var reverseIndex = lastIndex\n  for (index in 0..midPoint) {\n    val tmp =\n    this[index]\n    this[index] = this[reverseIndex]\n    this[reverseIndex] = tmp\n    reverseIndex--\n  }\n}\n\n/**\n * Reverses elements in the array in-place.\n */\n\npublic fun ShortArray.reverse(): Unit {\n  val\n  midPoint = (size / 2) - 1\n  if (midPoint < 0) return\n  var reverseIndex = lastIndex\n  for (index in 0..midPoint)\n  {\n    val tmp = this[index]\n    this[index] = this[reverseIndex]\n    this[reverseIndex] = tmp\n    reverseIndex--\n  }\n}\n\n/**\n * Reverses elements in the array in-place.\n */\n\npublic fun IntArray.reverse(): Unit\n {\n  val midPoint = (size / 2) - 1\n  if (midPoint <\n  0)\n  return\n  var reverseIndex = lastIndex\n  for (index in 0..midPoint) {\n    val tmp = this[index]\n    this[index] = this[reverseIndex]\n    this[reverseIndex] = tmp\n    reverseIndex--\n  }\n}\n\n/**\n * Reverses\n elements in the array in-place.\n */\n\npublic fun LongArray.reverse(): Unit {\n  val midPoint = (size / 2) - 1\n  if\n  (midPoint < 0) return\n  var reverseIndex = lastIndex\n  for (index in 0..midPoint) {\n    val tmp = this[index]\n    this[index] = this[reverseIndex]\n    this[reverseIndex] = tmp\n    reverseIndex--\n  }\n}\n\n/**\n * Reverses\n elements in the array in-place.\n */\n\npublic fun FloatArray.reverse(): Unit {\n  val midPoint = (size / 2) -\n  1\n  if (midPoint < 0) return\n  var reverseIndex = lastIndex\n  for (index in 0..midPoint) {\n    val tmp =\n    this[index]\n    this[index] = this[reverseIndex]\n    this[reverseIndex] = tmp\n    reverseIndex--\n  }\n}\n\n/**\n * Reverses elements in the array\n in-place.\n */\n\npublic fun DoubleArray.reverse(): Unit {\n  val midPoint = (size / 2) - 1\n  if (midPoint < 0)\n  return\n  var reverseIndex = lastIndex\n  for (index in 0..midPoint) {\n    val tmp = this[index]\n    this[index] =\n    this[reverseIndex]\n    this[reverseIndex] = tmp\n    reverseIndex--\n  }\n}\n\n/**\n * Reverses elements in\n the array in-place.\n */\n\npublic fun BooleanArray.reverse(): Unit {\n  val midPoint = (size / 2) - 1\n  if (midPoint\n  < 0) return\n  var reverseIndex = lastIndex\n  for (index in 0..midPoint) {\n    val tmp = this[index]\n    this[index] =\n    this[reverseIndex]\n    this[reverseIndex] = tmp\n    reverseIndex--\n  }\n}\n\n/**\n * Reverses\n elements in the array in-place.\n */\n\npublic fun CharArray.reverse(): Unit {\n  val midPoint = (size / 2) - 1\n  if\n  (midPoint < 0) return\n  var reverseIndex = lastIndex\n  for (index in 0..midPoint) {\n    val tmp = this[index]\n    this[index] =\n    this[reverseIndex]\n  }\n}

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    this[reverseIndex] = tmp\n    reverseIndex--\n    }\n}\n\n/**\n * Reverses elements of the array in the
specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param
toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is
less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if
[fromIndex] is greater than [toIndex].\n *\n@SinceKotlin("1.4")\npublic fun <T> Array<T>.reverse(fromIndex:
Int, toIndex: Int): Unit {\n    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    val midPoint =
(fromIndex + toIndex) / 2\n    if (fromIndex == midPoint) return\n    var reverseIndex = toIndex - 1\n    for (index in
fromIndex until midPoint) {\n        val tmp = this[index]\n        this[index] = this[reverseIndex]\n
this[reverseIndex] = tmp\n        reverseIndex--\n    }\n}\n\n/**\n * Reverses elements
of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to
reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws
IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n *
@throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n *\n@SinceKotlin("1.4")\npublic fun
ByteArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n    AbstractList.checkRangeIndexes(fromIndex,
toIndex, size)\n    val midPoint = (fromIndex + toIndex) / 2\n    if (fromIndex == midPoint) return\n    var
reverseIndex = toIndex - 1\n    for (index in fromIndex until midPoint) {\n        val tmp = this[index]\n
this[index] = this[reverseIndex]\n        this[reverseIndex] = tmp\n        reverseIndex--\n    }\n}\n\n/**\n * Reverses
elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to
reverse.\n * \n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException
if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws
IllegalArgumentException if [fromIndex] is greater than [toIndex].\n *\n@SinceKotlin("1.4")\npublic fun
ShortArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n    AbstractList.checkRangeIndexes(fromIndex, toIndex,
size)\n    val midPoint = (fromIndex + toIndex) / 2\n    if (fromIndex == midPoint) return\n    var reverseIndex =
toIndex - 1\n    for (index in fromIndex until midPoint) {\n        val tmp = this[index]\n        this[index] =
this[reverseIndex]\n        this[reverseIndex] = tmp\n        reverseIndex--\n    }\n}\n\n/**\n * Reverses elements of the
array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n *
@param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException
if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws
IllegalArgumentException if [fromIndex] is greater than [toIndex].\n *\n@SinceKotlin("1.4")\npublic fun
IntArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n    AbstractList.checkRangeIndexes(fromIndex, toIndex,
size)\n    val midPoint = (fromIndex + toIndex) / 2\n    if (fromIndex == midPoint) return\n    var reverseIndex =
toIndex - 1\n    for (index in fromIndex until midPoint) {\n        val tmp = this[index]\n        this[index] =
this[reverseIndex]\n        this[reverseIndex] = tmp\n        reverseIndex--\n    }\n}\n\n/**\n * Reverses elements of the
array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n *
@param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if
[fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws
IllegalArgumentException if [fromIndex] is greater than [toIndex].\n *\n@SinceKotlin("1.4")\npublic fun
LongArray.reverse(fromIndex:
Int, toIndex: Int): Unit {\n    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    val midPoint =
(fromIndex + toIndex) / 2\n    if (fromIndex == midPoint) return\n    var reverseIndex = toIndex - 1\n    for (index in
fromIndex until midPoint) {\n        val tmp = this[index]\n        this[index] = this[reverseIndex]\n
this[reverseIndex] = tmp\n        reverseIndex--\n    }\n}\n\n/**\n * Reverses elements of the array in the specified
range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end
of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero
or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater
than [toIndex].\n *\n@SinceKotlin("1.4")\npublic fun FloatArray.reverse(fromIndex:

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Int, toIndex: Int): Unit {
    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)
    val midPoint = (fromIndex + toIndex) / 2
    if (fromIndex == midPoint) return
    var reverseIndex = toIndex - 1
    for (index in fromIndex until midPoint) {
        val tmp = this[index]
        this[index] = this[reverseIndex]
        this[reverseIndex] = tmp
        reverseIndex--
    }
}

/**
 * Reverses elements of the array in the specified range in-place.
 * @param fromIndex the start of the range (inclusive) to reverse.
 * @param toIndex the end of the range (exclusive) to reverse.
 * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.
 * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].
 */
@SinceKotlin("1.4")
public fun DoubleArray.reverse(fromIndex: Int, toIndex: Int): Unit {
    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)
    val midPoint = (fromIndex + toIndex) / 2
    if (fromIndex == midPoint) return
    var reverseIndex = toIndex - 1
    for (index in fromIndex until midPoint) {
        val tmp = this[index]
        this[index] = this[reverseIndex]
        this[reverseIndex] = tmp
        reverseIndex--
    }
}

/**
 * Reverses elements of the array in the specified range in-place.
 * @param fromIndex the start of the range (inclusive) to reverse.
 * @param toIndex the end of the range (exclusive) to reverse.
 * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.
 * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].
 */
@SinceKotlin("1.4")
public fun BooleanArray.reverse(fromIndex: Int, toIndex: Int): Unit {
    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)
    val midPoint = (fromIndex + toIndex) / 2
    if (fromIndex == midPoint) return
    var reverseIndex = toIndex - 1
    for (index in fromIndex until midPoint) {
        val tmp = this[index]
        this[index] = this[reverseIndex]
        this[reverseIndex] = tmp
        reverseIndex--
    }
}

/**
 * Returns a list with elements in reversed order.
 */
public fun <T> Array<out T>.reversed(): List<T> {
    if (isEmpty()) return emptyList()
    val list = toMutableList()
    list.reverse()
    return list
}

/**
 * Returns a list with elements in reversed order.
 */
public fun ByteArray.reversed(): List<Byte> {
    if (isEmpty()) return emptyList()
    val list = toMutableList()
    list.reverse()
    return list
}

/**
 * Returns a list with elements in reversed order.
 */
public fun ShortArray.reversed(): List<Short> {
    if (isEmpty()) return emptyList()
    val list = toMutableList()
    list.reverse()
    return list
}

/**
 * Returns a list with elements in reversed order.
 */
public fun IntArray.reversed(): List<Int> {
    if (isEmpty()) return emptyList()
    val list = toMutableList()
    list.reverse()
    return list
}

/**
 * Returns a list with elements in reversed order.
 */
public fun LongArray.reversed(): List<Long> {
    if (isEmpty()) return emptyList()
    val list = toMutableList()
    list.reverse()
    return list
}

/**
 * Returns a list with elements in reversed order.
 */
public fun FloatArray.reversed(): List<Float> {
    if (isEmpty()) return emptyList()
    val list = toMutableList()
    list.reverse()
    return list
}

/**
 * Returns a list with elements in reversed order.
 */
public fun DoubleArray.reversed(): List<Double> {
    if (isEmpty()) return emptyList()
    val list = toMutableList()
    list.reverse()
    return list
}

/**
 * Returns a list with elements in reversed order.
 */
public fun BooleanArray.reversed(): List<Boolean> {
    if (isEmpty()) return emptyList()
    val list = toMutableList()
    list.reverse()
    return list
}

/**
 * Returns a list with elements in reversed order.
 */
public fun CharArray.reversed(): List<Char> {
    if (isEmpty()) return emptyList()
    val list = toMutableList()
    list.reverse()
    return list
}

/**
 * Returns an array with elements of this array in reversed order.
 */
public fun <T> Array<T>.reversedArray(): Array<T> {
    if (isEmpty()) return this
    val result = arrayOfNulls(this, size)
    val lastIndex = lastIndexOf
    for (i in

```

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0..lastIndex)\n    result[lastIndex - i] = this[i]\n    return result\n}\n\n/**\n * Returns an array with elements of this
array in reversed order.\n */\npublic fun ByteArray.reversedArray(): ByteArray {\n    if (isEmpty()) return this\n    val result = ByteArray(size)\n    val lastIndex = lastIndex\n    for (i in 0..lastIndex)\n        result[lastIndex - i] =
this[i]\n    return result\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic fun
ShortArray.reversedArray(): ShortArray {\n    if (isEmpty()) return this\n    val result = ShortArray(size)\n    val
lastIndex = lastIndex\n    for (i in 0..lastIndex)\n        result[lastIndex - i] = this[i]\n    return result\n}\n\n/**\n * Returns an array with elements of this array in
reversed order.\n */\npublic fun IntArray.reversedArray(): IntArray {\n    if (isEmpty()) return this\n    val result =
IntArray(size)\n    val lastIndex = lastIndex\n    for (i in 0..lastIndex)\n        result[lastIndex - i] = this[i]\n    return
result\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic fun
LongArray.reversedArray(): LongArray {\n    if (isEmpty()) return this\n    val result = LongArray(size)\n    val
lastIndex = lastIndex\n    for (i in 0..lastIndex)\n        result[lastIndex - i] = this[i]\n    return result\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic fun
FloatArray.reversedArray():
FloatArray {\n    if (isEmpty()) return this\n    val result = FloatArray(size)\n    val lastIndex = lastIndex\n    for (i
in 0..lastIndex)\n        result[lastIndex - i] = this[i]\n    return result\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic fun
DoubleArray.reversedArray(): DoubleArray {\n    if (isEmpty()) return this\n    val result = DoubleArray(size)\n    val
lastIndex = lastIndex\n    for (i in 0..lastIndex)\n        result[lastIndex - i] = this[i]\n    return result\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic fun
BooleanArray.reversedArray():
BooleanArray {\n    if (isEmpty()) return this\n    val result = BooleanArray(size)\n    val lastIndex = lastIndex\n    for
(i in 0..lastIndex)\n        result[lastIndex - i] = this[i]\n    return result\n}\n\n/**\n * Returns an array with
elements of this array in reversed order.\n */\npublic fun CharArray.reversedArray(): CharArray {\n    if (isEmpty())
return this\n    val result = CharArray(size)\n    val lastIndex = lastIndex\n    for (i in 0..lastIndex)\n        result[
lastIndex - i] = this[i]\n    return result\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin("1.4")\npublic fun <T>
Array<T>.shuffle(): Unit {\n    shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin("1.4")\npublic fun ByteArray.shuffle(): Unit {\n    shuffle(Random)\n}\n\n/**\n * Randomly
shuffles elements in this array in-place.\n */\n@SinceKotlin("1.4")\npublic fun ShortArray.shuffle(): Unit {\n    shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin("1.4")\npublic fun IntArray.shuffle(): Unit {\n    shuffle(Random)\n}\n\n/**\n * Randomly
shuffles elements in this array in-place.\n */\n@SinceKotlin("1.4")\npublic fun LongArray.shuffle(): Unit {\n    shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin("1.4")\npublic fun FloatArray.shuffle(): Unit {\n    shuffle(Random)\n}\n\n/**\n * Randomly
shuffles elements in this array in-place.\n */\n@SinceKotlin("1.4")\npublic
fun DoubleArray.shuffle(): Unit {\n    shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-
place.\n */\n@SinceKotlin("1.4")\npublic fun BooleanArray.shuffle(): Unit {\n    shuffle(Random)\n}\n\n/**\n * Randomly
shuffles elements in this array in-place.\n */\n@SinceKotlin("1.4")\npublic fun CharArray.shuffle():
Unit {\n    shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified
[random] instance as the source of randomness.\n */\n * See:
https://en.wikipedia.org/wiki/Fisher%20%80%93Yates\_shuffle#The\_modern\_algorithm\n
}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the
source of randomness.\n */\n * See:
https://en.wikipedia.org/wiki/Fisher%20%80%93Yates\_shuffle#The\_modern\_algorithm\n
}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the

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source of randomness.\n \* \n \* See:

[https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates\\_shuffle#The\\_modern\\_algorithm](https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm)\n

```
*\n@SinceKotlin("1.4")\npublic fun ShortArray.shuffle(random: Random): Unit {\n    for (i in lastIndex downTo 1) {\n        val j = random.nextInt(i + 1)\n        val copy = this[i]\n        this[i] = this[j]\n        this[j] = copy\n    }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See:
```

[https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates\\_shuffle#The\\_modern\\_algorithm](https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm)\n

```
*\n@SinceKotlin("1.4")\npublic fun IntArray.shuffle(random: Random): Unit {\n    for (i in lastIndex downTo 1) {\n        val j = random.nextInt(i + 1)\n        val copy = this[i]\n        this[i] = this[j]\n        this[j] = copy\n    }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See:
```

[https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates\\_shuffle#The\\_modern\\_algorithm](https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm)\n

```
*\n@SinceKotlin("1.4")\npublic fun LongArray.shuffle(random: Random): Unit {\n    for (i in lastIndex downTo 1) {\n        val j = random.nextInt(i + 1)\n        val copy = this[i]\n        this[i] = this[j]\n        this[j] = copy\n    }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See:
```

[https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates\\_shuffle#The\\_modern\\_algorithm](https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm)\n

```
*\n@SinceKotlin("1.4")\npublic fun\nFloatArray.shuffle(random: Random): Unit {\n    for (i in lastIndex downTo 1) {\n        val j = random.nextInt(i + 1)\n        val copy = this[i]\n        this[i] = this[j]\n        this[j] = copy\n    }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See:
```

[https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates\\_shuffle#The\\_modern\\_algorithm](https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm)\n

```
*\n@SinceKotlin("1.4")\npublic fun DoubleArray.shuffle(random: Random): Unit {\n    for (i in lastIndex downTo 1) {\n        val j = random.nextInt(i + 1)\n        val copy = this[i]\n        this[i] = this[j]\n        this[j] = copy\n    }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See:
```

[https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates\\_shuffle#The\\_modern\\_algorithm](https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm)\n

```
*\n@SinceKotlin("1.4")\npublic fun BooleanArray.shuffle(random: Random): Unit {\n    for (i in\nlastIndex downTo 1) {\n        val j = random.nextInt(i + 1)\n        val copy = this[i]\n        this[i] = this[j]\n        this[j] = copy\n    }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See:
```

[https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates\\_shuffle#The\\_modern\\_algorithm](https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm)\n

```
*\n@SinceKotlin("1.4")\npublic fun CharArray.shuffle(random: Random): Unit {\n    for (i in lastIndex downTo 1) {\n        val j = random.nextInt(i + 1)\n        val copy = this[i]\n        this[i] = this[j]\n        this[j] = copy\n    }\n}\n\n/**\n * Sorts elements in the array in-place according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * public inline fun <T, R : Comparable<R>> Array<out T>.sortBy(crossinline selector: (T) -> R?): Unit {\n    if (size >
```

```
1) sortWith(compareBy(selector))\n}\n\n/**\n * Sorts elements in the array in-place descending according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * public inline fun <T, R :
```

```
Comparable<R>> Array<out T>.sortByDescending(crossinline selector: (T) -> R?): Unit {\n    if (size > 1)
```

```
sortWith(compareByDescending(selector))\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * public fun <T : Comparable<T>> Array<out T>.sortDescending(): Unit {\n    if (size > 1) {\n        sort()\n    }\n}
```

```
sortDescending()\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n * \n * public fun ByteArray.sortDescending(): Unit {\n    if (size > 1) {\n        sort()\n    }\n}
```

```
sortDescending()\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n * \n * public fun ByteArray.sortDescending(): Unit {\n    if (size > 1) {\n        sort()\n    }\n}
```



```

reverse()\n } }\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort
order.\n */\npublic fun ShortArray.sortDescending(): Unit {\n if (size > 1) {\n sort()\n reverse()\n
}\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\npublic fun
IntArray.sortDescending(): Unit {\n if (size > 1) {\n sort()\n reverse()\n } }\n}\n\n/**\n * Sorts elements
in the array in-place descending according to their natural sort order.\n */\npublic fun LongArray.sortDescending():
Unit {\n if (size > 1) {\n sort()\n reverse()\n } }\n}\n\n/**\n * Sorts elements in the array in-place
descending according to their natural sort order.\n */\npublic fun FloatArray.sortDescending(): Unit {\n if (size >
1) {\n sort()\n reverse()\n } }\n}\n\n/**\n * Sorts elements in the array in-place descending according to
their natural sort order.\n */\npublic fun
DoubleArray.sortDescending(): Unit {\n if (size > 1) {\n sort()\n reverse()\n } }\n}\n\n/**\n * Sorts
elements in the array in-place descending according to their natural sort order.\n */\npublic fun
CharArray.sortDescending(): Unit {\n if (size > 1) {\n sort()\n reverse()\n } }\n}\n\n/**\n * Returns a list
of all elements sorted according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements
preserve their order relative to each other after sorting.\n */\npublic fun <T : Comparable<T>> Array<out
T>.sorted(): List<T> {\n return sortedArray().asList()\n}\n}\n\n/**\n * Returns a list of all elements sorted according
to their natural sort order.\n */\npublic fun ByteArray.sorted(): List<Byte> {\n return toTypedArray().apply {
sort() }.asList()\n}\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\npublic
fun ShortArray.sorted(): List<Short> {\n return toTypedArray().apply
{ sort() }.asList()\n}\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n
*/\npublic fun IntArray.sorted(): List<Int> {\n return toTypedArray().apply { sort() }.asList()\n}\n}\n\n/**\n *
Returns a list of all elements sorted according to their natural sort order.\n */\npublic fun LongArray.sorted():
List<Long> {\n return toTypedArray().apply { sort() }.asList()\n}\n}\n\n/**\n * Returns a list of all elements sorted
according to their natural sort order.\n */\npublic fun FloatArray.sorted(): List<Float> {\n return
toTypedArray().apply { sort() }.asList()\n}\n}\n\n/**\n * Returns a list of all elements sorted according to their natural
sort order.\n */\npublic fun DoubleArray.sorted(): List<Double> {\n return toTypedArray().apply { sort()
}.asList()\n}\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\npublic fun
CharArray.sorted(): List<Char> {\n return toTypedArray().apply { sort() }.asList()\n}\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n * \n * The sort is
_stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T :
Comparable<T>> Array<T>.sortedArray(): Array<T> {\n if (isEmpty()) return this\n return this.copyOf().apply
{ sort() }\n}\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n
*/\npublic fun ByteArray.sortedArray(): ByteArray {\n if (isEmpty()) return this\n return this.copyOf().apply {
sort() }\n}\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n
*/\npublic fun ShortArray.sortedArray(): ShortArray {\n if (isEmpty()) return this\n return this.copyOf().apply {
sort() }\n}\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n
*/\npublic fun IntArray.sortedArray():
IntArray {\n if (isEmpty()) return this\n return this.copyOf().apply { sort() }\n}\n}\n\n/**\n * Returns an array with
all elements of this array sorted according to their natural sort order.\n */\npublic fun LongArray.sortedArray():
LongArray {\n if (isEmpty()) return this\n return this.copyOf().apply { sort() }\n}\n}\n\n/**\n * Returns an array
with all elements of this array sorted according to their natural sort order.\n */\npublic fun FloatArray.sortedArray():
FloatArray {\n if (isEmpty()) return this\n return this.copyOf().apply { sort() }\n}\n}\n\n/**\n * Returns an array
with all elements of this array sorted according to their natural sort order.\n */\npublic fun
DoubleArray.sortedArray(): DoubleArray {\n if (isEmpty()) return this\n return this.copyOf().apply { sort()
}\n}\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n
*/\npublic fun CharArray.sortedArray(): CharArray {\n if (isEmpty()) return this\n
return this.copyOf().apply { sort() }\n}\n}\n\n/**\n * Returns an array with all elements of this array sorted
descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve
their order relative to each other after sorting.\n */\npublic fun <T : Comparable<T>>

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Array<T>.sortedArrayDescending(): Array<T> {\n  if (isEmpty()) return this\n  return this.copyOf().apply {
  sortWith(reverseOrder()) }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending
  according to their natural sort order.\n */\npublic fun ByteArray.sortedArrayDescending(): ByteArray {\n  if
  (isEmpty()) return this\n  return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all
  elements of this array sorted descending according to their natural sort order.\n */\npublic fun
  ShortArray.sortedArrayDescending(): ShortArray {\n  if (isEmpty()) return this\n  return this.copyOf().apply {
  sortDescending() }\n}\n\n/**\n
  * Returns an array with all elements of this array sorted descending according to their natural sort order.\n
  */\npublic fun IntArray.sortedArrayDescending(): IntArray {\n  if (isEmpty()) return this\n  return
  this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted
  descending according to their natural sort order.\n */\npublic fun LongArray.sortedArrayDescending(): LongArray
  {\n  if (isEmpty()) return this\n  return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array
  with all elements of this array sorted descending according to their natural sort order.\n */\npublic fun
  FloatArray.sortedArrayDescending(): FloatArray {\n  if (isEmpty()) return this\n  return this.copyOf().apply {
  sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to
  their natural sort order.\n */\npublic fun DoubleArray.sortedArrayDescending(): DoubleArray {\n  if
  (isEmpty()) return this\n  return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all
  elements of this array sorted descending according to their natural sort order.\n */\npublic fun
  CharArray.sortedArrayDescending(): CharArray {\n  if (isEmpty()) return this\n  return this.copyOf().apply {
  sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according the specified
  [comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other
  after sorting.\n */\npublic fun <T> Array<out T>.sortedArrayWith(comparator: Comparator<in T>): Array<out T>
  {\n  if (isEmpty()) return this\n  return this.copyOf().apply { sortWith(comparator) }\n}\n\n/**\n * Returns a list
  of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n *
  The sort is _stable_. It means that equal elements preserve their order relative to each other
  after sorting.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <T, R :
  Comparable<R>> Array<out T>.sortedBy(crossinline selector: (T) -> R?): List<T> {\n  return
  sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order
  of the value returned by specified [selector] function.\n * \n * @sample
  samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>>
  ByteArray.sortedBy(crossinline selector: (Byte) -> R?): List<Byte> {\n  return
  sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order
  of the value returned by specified [selector] function.\n * \n * @sample
  samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>>
  ShortArray.sortedBy(crossinline selector: (Short) -> R?): List<Short> {\n  return
  sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list
  of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n *
  @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>>
  IntArray.sortedBy(crossinline selector: (Int) -> R?): List<Int> {\n  return
  sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order
  of the value returned by specified [selector] function.\n * \n * @sample
  samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>>
  LongArray.sortedBy(crossinline selector: (Long) -> R?): List<Long> {\n  return
  sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order
  of the value returned by specified [selector] function.\n * \n * @sample
  samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>>
  FloatArray.sortedBy(crossinline selector: (Float) -> R?):

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List<Float> {\n  return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted
according to natural sort order of the value returned by specified [selector] function.\n * \n * @sample
samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>>
DoubleArray.sortedBy(crossinline selector: (Double) -> R?): List<Double> {\n  return
sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order
of the value returned by specified [selector] function.\n * \n * @sample
samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>>
BooleanArray.sortedBy(crossinline selector: (Boolean) -> R?): List<Boolean> {\n  return
sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order
of the value returned by specified [selector] function.\n * \n * @sample
samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>> CharArray.sortedBy(crossinline selector: (Char) -> R?): List<Char>
{\n  return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending
according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It
means that equal elements preserve their order relative to each other after sorting.\n */\npublic inline fun <T, R :
Comparable<R>> Array<out T>.sortedByDescending(crossinline selector: (T) -> R?): List<T> {\n  return
sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending
according to natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R :
Comparable<R>> ByteArray.sortedByDescending(crossinline selector: (Byte) -> R?): List<Byte> {\n  return
sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending
according to natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R :
Comparable<R>> ShortArray.sortedByDescending(crossinline selector: (Short) -> R?): List<Short> {\n  return
sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending
according to natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R :
Comparable<R>> IntArray.sortedByDescending(crossinline selector: (Int) -> R?): List<Int> {\n  return
sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending
according to natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R :
Comparable<R>> LongArray.sortedByDescending(crossinline selector: (Long) -> R?): List<Long> {\n  return
sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending
according to natural
sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>>
FloatArray.sortedByDescending(crossinline selector: (Float) -> R?): List<Float> {\n  return
sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending
according to natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R :
Comparable<R>> DoubleArray.sortedByDescending(crossinline selector: (Double) -> R?): List<Double> {\n  return
sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending
according to natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R :
Comparable<R>> BooleanArray.sortedByDescending(crossinline selector: (Boolean) -> R?): List<Boolean> {\n  return
sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending
according to
natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R :
Comparable<R>> CharArray.sortedByDescending(crossinline selector: (Char) -> R?): List<Char> {\n  return
sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending
according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order
relative to each other after sorting.\n */\npublic fun <T : Comparable<T>> Array<out T>.sortedDescending():
List<T> {\n  return sortedWith(reverseOrder())\n}\n\n/**\n * Returns a list of all elements sorted descending
according to their natural sort order.\n */\npublic fun ByteArray.sortedDescending(): List<Byte> {\n  return
copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted descending according to their

```

natural sort order.

```

public fun ShortArray.sortedDescending(): List<Short> {
    return copyOf().apply { sort() }.reversed()
}

```

\* Returns a list of all elements sorted descending according to their natural sort order.

```

public fun IntArray.sortedDescending(): List<Int> {
    return copyOf().apply { sort() }.reversed()
}

```

\* Returns a list of all elements sorted descending according to their natural sort order.

```

public fun LongArray.sortedDescending(): List<Long> {
    return copyOf().apply { sort() }.reversed()
}

```

\* Returns a list of all elements sorted descending according to their natural sort order.

```

public fun FloatArray.sortedDescending(): List<Float> {
    return copyOf().apply { sort() }.reversed()
}

```

\* Returns a list of all elements sorted descending according to their natural sort order.

```

public fun DoubleArray.sortedDescending(): List<Double> {
    return copyOf().apply { sort() }.reversed()
}

```

\* Returns a list of all elements sorted descending according to their natural sort order.

```

public fun CharArray.sortedDescending(): List<Char> {
    return copyOf().apply { sort() }.reversed()
}

```

\* Returns a list of all elements sorted according to the specified [comparator].

\* The sort is `_stable_`. It means that equal elements preserve their order relative to each other after sorting.

```

public fun <T> Array<out T>.sortedWith(comparator: Comparator<in T>): List<T> {
    return sortedArrayWith(comparator).asList()
}

```

\* Returns a list of all elements sorted according to the specified [comparator].

```

public fun ByteArray.sortedWith(comparator: Comparator<in Byte>): List<Byte> {
    return toTypedArray().apply { sortWith(comparator) }.asList()
}

```

\* Returns a list of all elements sorted according to the specified [comparator].

```

public fun ShortArray.sortedWith(comparator: Comparator<in Short>): List<Short> {
    return toTypedArray().apply { sortWith(comparator) }.asList()
}

```

\* Returns a list of all elements sorted according to the specified [comparator].

```

public fun IntArray.sortedWith(comparator: Comparator<in Int>): List<Int> {
    return toTypedArray().apply { sortWith(comparator) }.asList()
}

```

\* Returns a list of all elements sorted according to the specified [comparator].

```

public fun LongArray.sortedWith(comparator: Comparator<in Long>): List<Long> {
    return toTypedArray().apply { sortWith(comparator) }.asList()
}

```

\* Returns a list of all elements sorted according to the specified [comparator].

```

public fun FloatArray.sortedWith(comparator: Comparator<in Float>): List<Float> {
    return toTypedArray().apply { sortWith(comparator) }.asList()
}

```

\* Returns a list of all elements sorted according to the specified [comparator].

```

public fun DoubleArray.sortedWith(comparator: Comparator<in Double>): List<Double> {
    return toTypedArray().apply { sortWith(comparator) }.asList()
}

```

\* Returns a list of all elements sorted according to the specified [comparator].

```

public fun BooleanArray.sortedWith(comparator: Comparator<in Boolean>): List<Boolean> {
    return toTypedArray().apply { sortWith(comparator) }.asList()
}

```

\* Returns a list of all elements sorted according to the specified [comparator].

```

public fun CharArray.sortedWith(comparator: Comparator<in Char>): List<Char> {
    return toTypedArray().apply { sortWith(comparator) }.asList()
}

```

\* Returns a [List] that wraps the original array.

```

public expect fun <T> Array<out T>.asList(): List<T>

```

\* Returns a [List] that wraps the original array.

```

public expect fun ByteArray.asList(): List<Byte>

```

\* Returns a [List] that wraps the original array.

```

public expect fun ShortArray.asList(): List<Short>

```

\* Returns a [List] that wraps the original array.

```

public expect fun IntArray.asList(): List<Int>

```

\* Returns a [List] that wraps the original array.

```

public expect fun LongArray.asList(): List<Long>

```

\* Returns a [List] that wraps the original array.

```

public expect fun FloatArray.asList(): List<Float>

```

\* Returns a [List] that wraps the original array.

```

public expect fun DoubleArray.asList(): List<Double>

```

\* Returns a [List] that wraps the original array.

```

public expect fun BooleanArray.asList(): List<Boolean>

```

\* Returns a [List] that wraps the original array.

```

public expect fun CharArray.asList(): List<Char>

```

\* Returns `true` if the two specified arrays are *deeply* equal to one another, i.e. contain the same number of the same elements in the same order.

\* If two corresponding elements are nested arrays, they are also compared deeply.

\* If any of arrays contains itself on any nesting level the behavior is undefined.

\* The elements of other types are compared for equality with the [equals][Any.equals] function.

\* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.

`*\n@SinceKotlin("1.1")\n@kotlin.internal.LowPriorityInOverloadResolution\npublic`  
`expect infix fun <T> Array<out T>.contentDeepEquals(other: Array<out T>): Boolean\n\n/**\n * Returns `true` if`  
the two specified arrays are *deeply* equal to one another,\n \* i.e. contain the same number of the same elements in  
the same order.\n \* \n \* The specified arrays are also considered deeply equal if both are `null`.\n \* \n \* If two  
corresponding elements are nested arrays, they are also compared deeply.\n \* If any of arrays contains itself on any  
nesting level the behavior is undefined.\n \* \n \* The elements of other types are compared for equality with the  
[equals][Any.equals] function.\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not  
equal to `0.0`.\n \* \n \*\n@SinceKotlin("1.4")\npublic expect infix fun <T> Array<out T>?.contentDeepEquals(other:  
Array<out T>?): Boolean\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*  
Nested  
arrays are treated as lists too.\n \* \n \* If any of arrays contains itself on any nesting level the behavior is  
undefined.\n \* \n \*\n@SinceKotlin("1.1")\n@kotlin.internal.LowPriorityInOverloadResolution\npublic expect fun  
<T> Array<out T>.contentDeepHashCode(): Int\n\n/\*\*\n \* Returns a hash code based on the contents of this array  
as if it is [List].\n \* Nested arrays are treated as lists too.\n \* \n \* If any of arrays contains itself on any nesting level  
the behavior is undefined.\n \* \n \*\n@SinceKotlin("1.4")\npublic expect fun <T> Array<out  
T>?.contentDeepHashCode(): Int\n\n/\*\*\n \* Returns a string representation of the contents of this array as if it is a  
[List].\n \* Nested arrays are treated as lists too.\n \* \n \* If any of arrays contains itself on any nesting level that  
reference\n \* is rendered as `[...]` to prevent recursion.\n \* \n \* @sample  
samples.collections.Arrays.ContentOperations.contentDeepToString\n

`*\n@SinceKotlin("1.1")\n@kotlin.internal.LowPriorityInOverloadResolution\npublic`  
`expect fun <T> Array<out T>.contentDeepToString(): String\n\n/**\n * Returns a string representation of the`  
contents of this array as if it is a [List].\n \* Nested arrays are treated as lists too.\n \* \n \* If any of arrays contains  
itself on any nesting level that reference\n \* is rendered as `[...]` to prevent recursion.\n \* \n \* @sample  
samples.collections.Arrays.ContentOperations.contentDeepToString\n \* \n \*\n@SinceKotlin("1.4")\npublic expect fun  
<T> Array<out T>?.contentDeepToString(): String\n\n/\*\*\n \* Returns `true` if the two specified arrays are  
\*structurally\* equal to one another,\n \* i.e. contain the same number of the same elements in the same order.\n \* \n  
\* The elements are compared for equality with the [equals][Any.equals] function.\n \* For floating point numbers it  
means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n \* \n \*\n@Deprecated("Use Kotlin compiler 1.4 to  
avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince  
= "1.4")\npublic expect infix fun <T> Array<out T>.contentEquals(other: Array<out T>): Boolean\n\n/\*\*\n \*  
Returns `true` if the two specified arrays are *structurally* equal to one another,\n \* i.e. contain the same number of  
the same elements in the same order.\n \* \n \* The elements are compared for equality with the [equals][Any.equals]  
function.\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n \*  
\*\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation  
warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic expect infix fun  
ByteArray.contentEquals(other: ByteArray): Boolean\n\n/\*\*\n \* Returns `true` if the two specified arrays are  
\*structurally\* equal to one another,\n \* i.e. contain the same number of the same elements in the same order.\n \* \n  
\* The elements are compared for equality with the [equals][Any.equals] function.\n \* For floating point numbers it  
means that `NaN`  
is equal to itself and `-0.0` is not equal to `0.0`.\n \* \n \*\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation  
warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic expect infix fun  
ShortArray.contentEquals(other: ShortArray): Boolean\n\n/\*\*\n \* Returns `true` if the two specified arrays are  
\*structurally\* equal to one another,\n \* i.e. contain the same number of the same elements in the same order.\n \* \n  
\* The elements are compared for equality with the [equals][Any.equals] function.\n \* For floating point numbers it  
means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n \* \n \*\n@Deprecated("Use Kotlin compiler 1.4 to  
avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic  
expect infix fun IntArray.contentEquals(other: IntArray): Boolean\n\n/\*\*\n \* Returns `true` if the two specified  
arrays are *structurally* equal to one another,\n \* i.e. contain the same number of the same

elements in the same order.

`n * n` \* The elements are compared for equality with the `[equals][Any.equals]` function.

`n` \* For floating point numbers it means that ``NaN`` is equal to itself and ``-0.0`` is not equal to ``0.0``.

`n` \* `^n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")`

`n` \* `^n@SinceKotlin("1.1")`

`n` \* `^n@DeprecatedSinceKotlin(hiddenSince = "1.4")`

`n` \* `public expect infix fun LongArray.contentEquals(other: LongArray): Boolean`

`n` \* `n` \* `n` \* Returns ``true`` if the two specified arrays are `*structurally*` equal to one another, `n` \* i.e. contain the same number of the same elements in the same order.

`n` \* `n` \* The elements are compared for equality with the `[equals][Any.equals]` function.

`n` \* For floating point numbers it means that ``NaN`` is equal to itself and ``-0.0`` is not equal to ``0.0``.

`n` \* `^n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")`

`n` \* `^n@SinceKotlin("1.1")`

`n` \* `^n@DeprecatedSinceKotlin(hiddenSince = "1.4")`

`n` \* `public expect infix fun FloatArray.contentEquals(other: FloatArray): Boolean`

`n` \* `n` \* `n` \* Returns ``true`` if the two specified arrays are `*structurally*` equal to one another, `n` \* i.e. contain the same number of the same elements in the same order.

`n` \* `n` \* The elements are compared for equality with the `[equals][Any.equals]` function.

`n` \* For floating point numbers it means that ``NaN`` is equal to itself and ``-0.0`` is not equal to ``0.0``.

`n` \* `^n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")`

`n` \* `^n@SinceKotlin("1.1")`

`n` \* `^n@DeprecatedSinceKotlin(hiddenSince = "1.4")`

`n` \* `public expect infix fun DoubleArray.contentEquals(other: DoubleArray): Boolean`

`n` \* `n` \* `n` \* Returns ``true`` if the two specified arrays are `*structurally*` equal to one another, `n` \* i.e. contain the same number of the same elements in the same order.

`n` \* `n` \* The elements are compared for equality with the `[equals][Any.equals]` function.

`n` \* For floating point numbers it means that ``NaN`` is equal to itself and ``-0.0`` is not equal to ``0.0``.

`n` \* `^n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")`

`n` \* `^n@SinceKotlin("1.1")`

`n` \* `^n@DeprecatedSinceKotlin(hiddenSince = "1.4")`

`n` \* `public expect infix fun BooleanArray.contentEquals(other: BooleanArray): Boolean`

`n` \* `n` \* `n` \* Returns ``true`` if the two specified arrays are `*structurally*` equal to one another, `n` \* i.e. contain the same number of the same elements in the same order.

`n` \* `n` \* The elements are compared for equality with the `[equals][Any.equals]` function.

`n` \* For floating point numbers it means that ``NaN`` is equal to itself and ``-0.0`` is not equal to ``0.0``.

`n` \* `^n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")`

`n` \* `^n@SinceKotlin("1.1")`

`n` \* `^n@DeprecatedSinceKotlin(hiddenSince = "1.4")`

`n` \* `public expect infix fun CharArray.contentEquals(other: CharArray): Boolean`

`n` \* `n` \* `n` \* Returns ``true`` if the two specified arrays are `*structurally*` equal to one another, `n` \* i.e. contain the same number of the same elements in the same order.

`n` \* `n` \* The elements are compared for equality with the `[equals][Any.equals]` function.

`n` \* For floating point numbers it means that ``NaN`` is equal to itself and ``-0.0`` is not equal to ``0.0``.

`n` \* `^n@SinceKotlin("1.4")`

`n` \* `public expect infix fun <T> Array<out T>?.contentEquals(other: Array<out T>?): Boolean`

`n` \* `n` \* `n` \* Returns ``true`` if the two specified arrays are `*structurally*` equal to one another, `n` \* i.e. contain the same number of the same elements in the same order.

`n` \* `n` \* The elements are compared for equality with the `[equals][Any.equals]` function.

`n` \* For floating point numbers it means that ``NaN`` is equal to itself and ``-0.0`` is not equal to ``0.0``.

`n` \* `^n@SinceKotlin("1.4")`

`n` \* `public expect infix fun ByteArray?.contentEquals(other: ByteArray?): Boolean`

`n` \* `n` \* `n` \* Returns ``true`` if the two specified arrays are `*structurally*` equal to one another, `n` \* i.e. contain the same number of the same elements in the same order.

`n` \* `n` \* The elements are compared for equality with the `[equals][Any.equals]` function.

`n` \* For floating point numbers it means that ``NaN`` is equal to itself and ``-0.0`` is not equal to ``0.0``.

`n` \* `^n@SinceKotlin("1.4")`

`n` \* `public expect infix fun ShortArray?.contentEquals(other: ShortArray?): Boolean`

`n` \* `n` \* `n` \* Returns ``true`` if the two specified arrays are `*structurally*` equal to one another, `n` \* i.e. contain the same number of the same elements in the same order.

`n` \* `n` \* The elements are compared for equality with the `[equals][Any.equals]` function.

`n` \* For floating point numbers it means that ``NaN`` is equal to itself and ``-0.0`` is not equal to ``0.0``.

`n` \* `^n@SinceKotlin("1.4")`

`n` \* `public expect infix fun IntArray?.contentEquals(other: IntArray?): Boolean`

`n` \* `n` \* `n` \* Returns ``true`` if the two specified arrays are `*structurally*` equal to one another, `n` \* i.e. contain the same number of the same elements in the same order.

`n` \* `n` \* The elements are compared for equality with the `[equals][Any.equals]` function.

`n` \* For floating point numbers it means that ``NaN`` is equal to itself and ``-0.0`` is not equal to ``0.0``.

is not equal to `0.0`.\n \*^n@SinceKotlin("1.4")\npublic expect infix fun LongArray?.contentEquals(other: LongArray?): Boolean\n\n/\*\*\n \* Returns `true` if the two specified arrays are *structurally* equal to one another,\n \* i.e. contain the same number of the same elements in the same order.\n \* \n \* The elements are compared for equality with the [equals][Any.equals] function.\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n \*^n@SinceKotlin("1.4")\npublic expect infix fun FloatArray?.contentEquals(other: FloatArray?): Boolean\n\n/\*\*\n \* Returns `true` if the two specified arrays are *structurally* equal to one another,\n \* i.e. contain the same number of the same elements in the same order.\n \* \n \* The elements are compared for equality with the [equals][Any.equals] function.\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n \*^n@SinceKotlin("1.4")\npublic expect infix fun DoubleArray?.contentEquals(other: DoubleArray?): Boolean\n\n/\*\*\n \* Returns `true` if the two specified arrays are *structurally* equal to one another,\n \* i.e. contain the same number of the same elements in the same order.\n \* \n \* The elements are compared for equality with the [equals][Any.equals] function.\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n \*^n@SinceKotlin("1.4")\npublic expect infix fun CharArray?.contentEquals(other: CharArray?): Boolean\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*^n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic expect fun <T> Array<out T>.contentHashCode(): Int\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*^n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic expect fun ByteArray.contentHashCode(): Int\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*^n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic expect fun ShortArray.contentHashCode(): Int\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*^n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic expect fun IntArray.contentHashCode(): Int\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*^n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic expect fun LongArray.contentHashCode(): Int\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*^n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic expect fun FloatArray.contentHashCode(): Int\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*^n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic expect fun DoubleArray.contentHashCode(): Int\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*^n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic expect fun BooleanArray.contentHashCode(): Int\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*^n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic expect fun CharArray.contentHashCode(): Int\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*^n@SinceKotlin("1.4")\npublic expect fun <T> Array<out T>?.contentHashCode(): Int\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*^n@SinceKotlin("1.4")\npublic expect

```

fun ByteArray?.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array
as if it is [List].\n *\n@SinceKotlin("1.4")\npublic expect fun ShortArray?.contentHashCode(): Int\n\n/**\n *
Returns a hash code based on the contents of this array as if it is [List].\n *\n@SinceKotlin("1.4")\npublic expect
fun IntArray?.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is
[List].\n *\n@SinceKotlin("1.4")\npublic expect fun LongArray?.contentHashCode(): Int\n\n/**\n * Returns a
hash code based on the contents of this array as if it is [List].\n *\n@SinceKotlin("1.4")\npublic expect fun
FloatArray?.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is
[List].\n *\n@SinceKotlin("1.4")\npublic expect fun DoubleArray?.contentHashCode(): Int\n\n/**\n * Returns a
hash code based on the contents of this array as if it is [List].\n *\n@SinceKotlin("1.4")\npublic expect fun
BooleanArray?.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents
of this array as if it is [List].\n *\n@SinceKotlin("1.4")\npublic expect fun CharArray?.contentHashCode():
Int\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n *\n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n *\n@Deprecated("Use Kotlin compiler 1.4
to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic
expect fun <T> Array<out T>.contentToString(): String\n\n/**\n * Returns a string representation of the contents of
the specified array as if it is [List].\n *\n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n *\n@Deprecated("Use Kotlin compiler 1.4
to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic
expect fun ByteArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the
specified array as if it is [List].\n *\n *
@sample samples.collections.Arrays.ContentOperations.contentToString\n *\n@Deprecated("Use Kotlin
compiler 1.4 to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince =
"1.4")\npublic expect fun ShortArray.contentToString(): String\n\n/**\n * Returns a string representation of the
contents of the specified array as if it is [List].\n *\n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n *\n@Deprecated("Use Kotlin compiler 1.4
to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic
expect fun IntArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the
specified array as if it is [List].\n *\n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation
warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic expect fun
LongArray.contentToString():
String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n *\n *\n *
@sample samples.collections.Arrays.ContentOperations.contentToString\n *\n@Deprecated("Use Kotlin compiler
1.4 to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince =
"1.4")\npublic expect fun FloatArray.contentToString(): String\n\n/**\n * Returns a string representation of the
contents of the specified array as if it is [List].\n *\n *\n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n *\n@Deprecated("Use Kotlin compiler 1.4
to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic
expect fun DoubleArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the
specified array as if it is [List].\n *\n *\n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*\n@Deprecated("Use
Kotlin compiler 1.4 to avoid deprecation
warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic expect fun
BooleanArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified
array as if it is [List].\n *\n *\n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation
warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic expect fun
CharArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array

```



as if it is [List].\n \* \n \* @sample samples.collections.Arrays.ContentOperations.contentToString\n

```
*\n@SinceKotlin("1.4")\npublic expect fun <T> Array<out T>?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n *\n@SinceKotlin("1.4")\npublic expect fun ByteArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n *\n@SinceKotlin("1.4")\npublic expect fun ShortArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n *\n@SinceKotlin("1.4")\npublic expect fun IntArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n *\n@SinceKotlin("1.4")\npublic expect fun LongArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n *\n@SinceKotlin("1.4")\npublic expect fun FloatArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n *\n@SinceKotlin("1.4")\npublic expect fun DoubleArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n *\n@SinceKotlin("1.4")\npublic expect fun BooleanArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n *\n@SinceKotlin("1.4")\npublic expect fun CharArray?.contentToString(): String\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n *\n@SinceKotlin("1.3")\npublic expect fun <T> Array<out T>.copyInto(destination: Array<T>, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): Array<T>\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n *\n@SinceKotlin("1.3")\npublic expect fun ByteArray.copyInto(destination: ByteArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): ByteArray\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by
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default.\n \* @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n \* @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n \* \n \* @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n \* @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n \* or when that index is out of the [destination] array indices range.\n \* \n \* @return the [destination] array.\n

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*\n@SinceKotlin("1.3")\npublic expect fun ShortArray.copyInto(destination: ShortArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): ShortArray\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin("1.3")\npublic expect fun IntArray.copyInto(destination: IntArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): IntArray\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin("1.3")\npublic expect fun LongArray.copyInto(destination: LongArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): LongArray\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin("1.3")\npublic expect fun FloatArray.copyInto(destination: FloatArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): FloatArray\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is

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out of the [destination] array indices range.\n \* \n \* @return  
the [destination] array.\n \* \n \* @SinceKotlin("1.3")\npublic expect fun DoubleArray.copyInto(destination:  
DoubleArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): DoubleArray\n\n\*\*\n \* Copies  
this array or its subrange into the [destination] array and returns that array.\n \* \n \* It's allowed to pass the same  
array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n \* \n \*  
@param destination the array to copy to.\n \* @param destinationOffset the position in the [destination] array to  
copy to, 0 by default.\n \* @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n \*  
@param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n \* \n \* @throws  
IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this  
array indices or when `startIndex > endIndex`.\n \* @throws IndexOutOfBoundsException when the subrange  
doesn't fit into the [destination] array starting at the specified [destinationOffset],\n \* or when that index is out of  
the [destination] array indices range.\n \* \n \* @return the [destination] array.\n \* \n \* @SinceKotlin("1.3")\npublic  
expect fun BooleanArray.copyInto(destination: BooleanArray, destinationOffset: Int = 0, startIndex: Int = 0,  
endIndex: Int = size): BooleanArray\n\n\*\*\n \* Copies this array or its subrange into the [destination] array and  
returns that array.\n \* \n \* It's allowed to pass the same array in the [destination] and even specify the subrange so  
that it overlaps with the destination range.\n \* \n \* @param destination the array to copy to.\n \* @param  
destinationOffset the position in the [destination] array to copy to, 0 by default.\n \* @param startIndex the  
beginning (inclusive) of the subrange to copy, 0 by default.\n \* @param endIndex the end (exclusive) of the  
subrange to copy, size of this array by default.\n \* \n \* @throws IndexOutOfBoundsException  
or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when  
`startIndex > endIndex`.\n \* @throws IndexOutOfBoundsException when the subrange doesn't fit into the  
[destination] array starting at the specified [destinationOffset],\n \* or when that index is out of the [destination]  
array indices range.\n \* \n \* @return the [destination] array.\n \* \n \* @SinceKotlin("1.3")\npublic expect fun  
CharArray.copyInto(destination: CharArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size):  
CharArray\n\n\*\*\n \* Returns new array which is a copy of the original array.\n \* \n \* @sample  
samples.collections.Arrays.CopyOfOperations.copyOfOf\n  
\*\n \* @Suppress("NO\_ACTUAL\_FOR\_EXPECT")\npublic expect fun <T> Array<T>.copyOf():  
Array<T>\n\n\*\*\n \* Returns new array which is a copy of the original array.\n \* \n \* @sample  
samples.collections.Arrays.CopyOfOperations.copyOfOf\n \* \n \* @public expect fun ByteArray.copyOf():  
ByteArray\n\n\*\*\n \* Returns  
new array which is a copy of the original array.\n \* \n \* @sample  
samples.collections.Arrays.CopyOfOperations.copyOfOf\n \* \n \* @public expect fun ShortArray.copyOf():  
ShortArray\n\n\*\*\n \* Returns new array which is a copy of the original array.\n \* \n \* @sample  
samples.collections.Arrays.CopyOfOperations.copyOfOf\n \* \n \* @public expect fun IntArray.copyOf(): IntArray\n\n\*\*\n \*  
Returns new array which is a copy of the original array.\n \* \n \* @sample  
samples.collections.Arrays.CopyOfOperations.copyOfOf\n \* \n \* @public expect fun LongArray.copyOf():  
LongArray\n\n\*\*\n \* Returns new array which is a copy of the original array.\n \* \n \* @sample  
samples.collections.Arrays.CopyOfOperations.copyOfOf\n \* \n \* @public expect fun FloatArray.copyOf():  
FloatArray\n\n\*\*\n \* Returns new array which is a copy of the original array.\n \* \n \* @sample  
samples.collections.Arrays.CopyOfOperations.copyOfOf\n \* \n \* @public expect fun DoubleArray.copyOf():  
DoubleArray\n\n\*\*\n \* Returns new array which is a copy of the original  
array.\n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.copyOfOf\n \* \n \* @public expect fun  
BooleanArray.copyOf(): BooleanArray\n\n\*\*\n \* Returns new array which is a copy of the original array.\n \* \n \*  
@sample samples.collections.Arrays.CopyOfOperations.copyOfOf\n \* \n \* @public expect fun CharArray.copyOf():  
CharArray\n\n\*\*\n \* Returns new array which is a copy of the original array, resized to the given [newSize].\n \*  
The copy is either truncated or padded at the end with zero values if necessary.\n \* \n \* - If [newSize] is less than the  
size of the original array, the copy array is truncated to the [newSize].\n \* - If [newSize] is greater than the size of  
the original array, the extra elements in the copy array are filled with zero values.\n \* \n \* @sample

samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n \* \npublic expect fun  
 ByteArray.copyOf(newSize: Int): ByteArray\n\n/\*\*\n \* Returns new array which is a copy of the original array,  
 resized to the given [newSize].\n  
 \* The copy is either truncated or padded at the end with zero values if necessary.\n \* \n \* - If [newSize] is less than  
 the size of the original array, the copy array is truncated to the [newSize].\n \* - If [newSize] is greater than the size  
 of the original array, the extra elements in the copy array are filled with zero values.\n \* \n \* @sample  
 samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n \* \npublic expect fun  
 ShortArray.copyOf(newSize: Int): ShortArray\n\n/\*\*\n \* Returns new array which is a copy of the original array,  
 resized to the given [newSize].\n \* The copy is either truncated or padded at the end with zero values if necessary.\n  
 \* \n \* - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n \* - If  
 [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero  
 values.\n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n  
 \* \npublic expect fun IntArray.copyOf(newSize: Int): IntArray\n\n/\*\*\n \* Returns new array which is a copy of the  
 original array, resized to the given [newSize].\n \* The copy is either truncated or padded at the end with zero values  
 if necessary.\n \* \n \* - If [newSize] is less than the size of the original array, the copy array is truncated to the  
 [newSize].\n \* - If [newSize] is greater than the size of the original array, the extra elements in the copy array are  
 filled with zero values.\n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n  
 \* \npublic expect fun LongArray.copyOf(newSize: Int): LongArray\n\n/\*\*\n \* Returns new array which is a copy of  
 the original array, resized to the given [newSize].\n \* The copy is either truncated or padded at the end with zero  
 values if necessary.\n \* \n \* - If [newSize] is less than the size of the original array, the copy array is truncated to the  
 [newSize].\n \* - If [newSize] is greater than the size  
 of the original array, the extra elements in the copy array are filled with zero values.\n \* \n \* @sample  
 samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n \* \npublic expect fun  
 FloatArray.copyOf(newSize: Int): FloatArray\n\n/\*\*\n \* Returns new array which is a copy of the original array,  
 resized to the given [newSize].\n \* The copy is either truncated or padded at the end with zero values if necessary.\n  
 \* \n \* - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n \* - If  
 [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero  
 values.\n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n \* \npublic  
 expect fun DoubleArray.copyOf(newSize: Int): DoubleArray\n\n/\*\*\n \* Returns new array which is a copy of the  
 original array, resized to the given [newSize].\n \* The copy is either truncated or padded at the end with `false`  
 values  
 if necessary.\n \* \n \* - If [newSize] is less than the size of the original array, the copy array is truncated to the  
 [newSize].\n \* - If [newSize] is greater than the size of the original array, the extra elements in the copy array are  
 filled with `false` values.\n \* \n \* @sample  
 samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n \* \npublic expect fun  
 BooleanArray.copyOf(newSize: Int): BooleanArray\n\n/\*\*\n \* Returns new array which is a copy of the original  
 array, resized to the given [newSize].\n \* The copy is either truncated or padded at the end with null char (`\u0000`)  
 values if necessary.\n \* \n \* - If [newSize] is less than the size of the original array, the copy array is truncated to the  
 [newSize].\n \* - If [newSize] is greater than the size of the original array, the extra elements in the copy array are  
 filled with null char (`\u0000`) values.\n \* \n \* @sample  
 samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n \* \npublic expect fun  
 CharArray.copyOf(newSize: Int): CharArray\n\n/\*\*\n \* Returns new array which is a copy of the original array,  
 resized to the given [newSize].\n \* The copy is either truncated or padded at the end with `null` values if  
 necessary.\n \* \n \* - If [newSize] is less than the size of the original array, the copy array is truncated to the  
 [newSize].\n \* - If [newSize] is greater than the size of the original array, the extra elements in the copy array are  
 filled with `null` values.\n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.resizingCopyOf\n  
 \* \n@Suppress(\"NO\_ACTUAL\_FOR\_EXPECT\")\npublic expect fun <T> Array<T>.copyOf(newSize: Int):  
 Array<T?>\n\n/\*\*\n \* Returns a new array which is a copy of the specified range of the original array.\n \* \n \* \n \*

@param fromIndex the start of the range (inclusive) to copy.\n \* @param toIndex the end of the range (exclusive) to copy.\n \* \n \* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of

this array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n

\*\n \* @SuppressWarnings("NO\_ACTUAL\_FOR\_EXPECT")\n \* public expect fun <T> Array<T>.copyOfRange(fromIndex: Int, toIndex: Int): Array<T>\n \* \n \* Returns a new array which is a copy of the specified range of the original array.\n \* \n \* @param fromIndex the start of the range (inclusive) to copy.\n \* @param toIndex the end of the range (exclusive) to copy.\n \* \n \* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n \* \n \* public expect fun ByteArray.copyOfRange(fromIndex: Int, toIndex: Int): ByteArray\n \* \n \* Returns a new array which is a copy of the specified range of the original array.\n \* \n \* @param fromIndex the start of the range (inclusive) to copy.\n \* @param toIndex the end of the range (exclusive) to copy.\n \* \n \* @throws IndexOutOfBoundsException

if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws

IllegalArgumentException if [fromIndex] is greater than [toIndex].\n \* \n \* public expect fun

ShortArray.copyOfRange(fromIndex: Int, toIndex: Int): ShortArray\n \* \n \* Returns a new array which is a copy of the specified range of the original array.\n \* \n \* @param fromIndex the start of the range (inclusive) to copy.\n \* @param toIndex the end of the range (exclusive) to copy.\n \* \n \* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws

IllegalArgumentException if [fromIndex] is greater than [toIndex].\n \* \n \* public expect fun

IntArray.copyOfRange(fromIndex: Int, toIndex: Int): IntArray\n \* \n \* Returns a new array which is a copy of the specified range of the original array.\n \* \n \* @param fromIndex the start of the range (inclusive) to copy.\n \* @param toIndex the end of the range (exclusive) to copy.\n \*

\* \n \* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n \* \n \* public expect fun

LongArray.copyOfRange(fromIndex: Int, toIndex: Int): LongArray\n \* \n \* Returns a new array which is a copy of the specified range of the original array.\n \* \n \* @param fromIndex the start of the range (inclusive) to copy.\n \* @param toIndex the end of the range (exclusive) to copy.\n \* \n \* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws

IllegalArgumentException if [fromIndex] is greater than [toIndex].\n \* \n \* public expect fun

FloatArray.copyOfRange(fromIndex: Int, toIndex: Int): FloatArray\n \* \n \* Returns a new array which is a copy of the specified range of the original array.\n \* \n \* @param fromIndex the start of the range (inclusive) to copy.\n \* @param toIndex the

end of the range (exclusive) to copy.\n \* \n \* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n \* \n \* public expect fun

DoubleArray.copyOfRange(fromIndex: Int, toIndex: Int): DoubleArray\n \* \n \* Returns a new array which is a copy of the specified range of the original array.\n \* \n \* @param fromIndex the start of the range (inclusive) to copy.\n \* @param toIndex the end of the range (exclusive) to copy.\n \* \n \* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws

IllegalArgumentException if [fromIndex] is greater than [toIndex].\n \* \n \* public expect fun

BooleanArray.copyOfRange(fromIndex: Int, toIndex: Int): BooleanArray\n \* \n \* Returns a new array which is a copy of the specified range of the original array.\n \* \n \* @param fromIndex the start of the range (inclusive) to copy.\n \* @param toIndex the end of the range (exclusive) to copy.\n \* \n \* @throws

IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws

IllegalArgumentException if [fromIndex] is greater than [toIndex].\n \* \n \* public expect fun

CharArray.copyOfRange(fromIndex: Int, toIndex: Int): CharArray\n \* \n \* Fills this array or its subrange with the specified [element] value.\n \* \n \* @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n \* @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n \* \n \* @throws

IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \*  
 @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n \*  
 @SinceKotlin("1.3")\n public expect fun <T> Array<T>.fill(element: T, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n \*\*\n \* Fills this array or  
 its subrange with the specified [element] value.\n \* \n \* @param fromIndex the start of the range (inclusive) to fill,  
 0 by default.\n \* @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n \* \n \*  
 @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this  
 array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n  
 \*  
 @SinceKotlin("1.3")\n public expect fun ByteArray.fill(element: Byte, fromIndex: Int = 0, toIndex: Int = size):  
 Unit\n\n \*\*\n \* Fills this array or its subrange with the specified [element] value.\n \* \n \* @param fromIndex the  
 start of the range (inclusive) to fill, 0 by default.\n \* @param toIndex the end of the range (exclusive) to fill, size of  
 this array by default.\n \* \n \* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is  
 greater than the size of this array.\n \* @throws IllegalArgumentException if [fromIndex] is greater  
 than [toIndex].\n \*  
 @SinceKotlin("1.3")\n public expect fun ShortArray.fill(element: Short, fromIndex: Int = 0,  
 toIndex: Int = size): Unit\n\n \*\*\n \* Fills this array or its subrange with the specified [element] value.\n \* \n \*  
 @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n \* @param toIndex the end of the range  
 (exclusive) to fill, size of this array by default.\n \* \n \* @throws IndexOutOfBoundsException if [fromIndex] is less  
 than zero or [toIndex] is greater than the size of this array.\n \* @throws IllegalArgumentException if [fromIndex] is  
 greater than [toIndex].\n \*  
 @SinceKotlin("1.3")\n public expect fun IntArray.fill(element: Int, fromIndex: Int = 0,  
 toIndex: Int = size): Unit\n\n \*\*\n \* Fills this array or its subrange with the specified [element] value.\n \* \n \*  
 @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n \* @param toIndex the end of the range  
 (exclusive) to fill, size of this array by default.\n \* \n \*  
 @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this  
 array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n  
 \*  
 @SinceKotlin("1.3")\n public expect fun LongArray.fill(element: Long, fromIndex: Int = 0, toIndex: Int =  
 size): Unit\n\n \*\*\n \* Fills this array or its subrange with the specified [element] value.\n \* \n \* @param fromIndex  
 the start of the range (inclusive) to fill, 0 by default.\n \* @param toIndex the end of the range (exclusive) to fill, size  
 of this array by default.\n \* \n \* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex]  
 is greater than the size of this array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than  
 [toIndex].\n \*  
 @SinceKotlin("1.3")\n public expect fun FloatArray.fill(element: Float, fromIndex: Int = 0,  
 toIndex: Int = size): Unit\n\n \*\*\n \* Fills this array or its subrange with the specified [element] value.\n \* \n  
 \* @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n \* @param toIndex the end of the range  
 (exclusive) to fill, size of this array by default.\n \* \n \* @throws IndexOutOfBoundsException if [fromIndex] is less  
 than zero or [toIndex] is greater than the size of this array.\n \* @throws IllegalArgumentException if [fromIndex] is  
 greater than [toIndex].\n \*  
 @SinceKotlin("1.3")\n public expect fun DoubleArray.fill(element: Double,  
 fromIndex: Int = 0, toIndex: Int = size): Unit\n\n \*\*\n \* Fills this array or its subrange with the specified [element]  
 value.\n \* \n \* @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n \* @param toIndex the end  
 of the range (exclusive) to fill, size of this array by default.\n \* \n \* @throws IndexOutOfBoundsException if  
 [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws  
 IllegalArgumentException if [fromIndex] is greater than [toIndex].\n  
 \*  
 @SinceKotlin("1.3")\n public expect fun BooleanArray.fill(element: Boolean, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n \*\*\n \* Fills this  
 array or its subrange with the specified [element] value.\n \* \n \* @param fromIndex the start of the range (inclusive)  
 to fill, 0 by default.\n \* @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n \* \n  
 \* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this  
 array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n  
 \*  
 @SinceKotlin("1.3")\n public expect fun CharArray.fill(element: Char, fromIndex: Int = 0, toIndex: Int = size):  
 Unit\n\n \*\*\n \* Returns the range of valid indices for the array.\n \*  
 @public val <T> Array<out T>.indices:  
 IntRange\n get() = IntRange(0, lastIndex)\n\n \*\*\n \* Returns the range of valid indices for the array.\n \*  
 @public  
 val ByteArray.indices: IntRange\n get() = IntRange(0, lastIndex)\n\n \*\*\n \* Returns the

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range of valid indices for the array.\n */\npublic val ShortArray.indices: IntRange\n    get() = IntRange(0,
lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val IntArray.indices: IntRange\n    get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val
LongArray.indices: IntRange\n    get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the
array.\n */\npublic val FloatArray.indices: IntRange\n    get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range
of valid indices for the array.\n */\npublic val DoubleArray.indices: IntRange\n    get() = IntRange(0,
lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val BooleanArray.indices:
IntRange\n    get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic
val CharArray.indices: IntRange\n    get() = IntRange(0, lastIndex)\n\n/**\n * Returns `true`
if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.isEmpty(): Boolean
{\n    return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic
inline fun ByteArray.isEmpty(): Boolean {\n    return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.isEmpty(): Boolean {\n    return size == 0\n}\n\n/**\n
* Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.isEmpty():
Boolean {\n    return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic
inline fun LongArray.isEmpty(): Boolean {\n    return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.isEmpty(): Boolean {\n    return size == 0\n}\n\n/**\n
* Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.isEmpty(): Boolean
{\n    return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic
inline fun BooleanArray.isEmpty(): Boolean {\n    return size == 0\n}\n\n/**\n * Returns `true` if the array is not empty.\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.isNotEmpty(): Boolean {\n    return
!isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline
fun ByteArray.isNotEmpty(): Boolean {\n    return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not
empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.isNotEmpty(): Boolean {\n    return
!isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic
inline fun IntArray.isNotEmpty(): Boolean {\n    return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not
empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.isNotEmpty(): Boolean {\n    return
!isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline
fun FloatArray.isNotEmpty(): Boolean {\n    return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not
empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.isNotEmpty(): Boolean {\n    return
!isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline
fun BooleanArray.isNotEmpty(): Boolean {\n    return !isEmpty()\n}\n\n/**\n * Returns the last valid index for the array.\n
*/\npublic val <T> Array<out
T>.lastIndex: Int\n    get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val
ByteArray.lastIndex: Int\n    get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val
ShortArray.lastIndex: Int\n    get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val
IntArray.lastIndex: Int\n    get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val
LongArray.lastIndex: Int\n    get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val
FloatArray.lastIndex: Int\n    get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val
DoubleArray.lastIndex: Int\n    get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val
BooleanArray.lastIndex: Int\n    get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val
CharArray.lastIndex: Int\n    get() = size
- 1\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n
@Suppress("NO_ACTUAL_FOR_EXPECT")\npublic expect operator fun <T> Array<T>.plus(element: T):

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`Array<T>.plus(element: T): Array<T>` Returns an array containing all elements of the original array and then the given [element].  
`ByteArray.plus(element: Byte): ByteArray` Returns an array containing all elements of the original array and then the given [element].  
`ShortArray.plus(element: Short): ShortArray` Returns an array containing all elements of the original array and then the given [element].  
`IntArray.plus(element: Int): IntArray` Returns an array containing all elements of the original array and then the given [element].  
`LongArray.plus(element: Long): LongArray` Returns an array containing all elements of the original array and then the given [element].  
`FloatArray.plus(element: Float): FloatArray` Returns an array containing all elements of the original array and then the given [element].  
`DoubleArray.plus(element: Double): DoubleArray` Returns an array containing all elements of the original array and then the given [element].  
`BooleanArray.plus(element: Boolean): BooleanArray` Returns an array containing all elements of the original array and then the given [element].  
`CharArray.plus(element: Char): CharArray` Returns an array containing all elements of the original array and then all elements of the given [elements] collection.  
`<T> Array<T>.plus(elements: Collection<T>): Array<T>` Returns an array containing all elements of the original array and then all elements of the given [elements] collection.  
`ByteArray.plus(elements: Collection<Byte>): ByteArray` Returns an array containing all elements of the original array and then all elements of the given [elements] collection.  
`ShortArray.plus(elements: Collection<Short>): ShortArray` Returns an array containing all elements of the original array and then all elements of the given [elements] collection.  
`IntArray.plus(elements: Collection<Int>): IntArray` Returns an array containing all elements of the original array and then all elements of the given [elements] collection.  
`LongArray.plus(elements: Collection<Long>): LongArray` Returns an array containing all elements of the original array and then all elements of the given [elements] collection.  
`FloatArray.plus(elements: Collection<Float>): FloatArray` Returns an array containing all elements of the original array and then all elements of the given [elements] collection.  
`DoubleArray.plus(elements: Collection<Double>): DoubleArray` Returns an array containing all elements of the original array and then all elements of the given [elements] collection.  
`BooleanArray.plus(elements: Collection<Boolean>): BooleanArray` Returns an array containing all elements of the original array and then all elements of the given [elements] collection.  
`CharArray.plus(elements: Collection<Char>): CharArray` Returns an array containing all elements of the original array and then all elements of the given [elements] array.  
`<T> Array<T>.plus(elements: Array<out T>): Array<T>` Returns an array containing all elements of the original array and then all elements of the given [elements] array.  
`ByteArray.plus(elements: ByteArray): ByteArray` Returns an array containing all elements of the original array and then all elements of the given [elements] array.  
`ShortArray.plus(elements: ShortArray): ShortArray` Returns an array containing all elements of the original array and then all elements of the given [elements] array.  
`IntArray.plus(elements: IntArray): IntArray` Returns an array containing all elements of the original array and then all elements of the given [elements] array.  
`LongArray.plus(elements: LongArray): LongArray` Returns an array containing all elements of the original array and then all elements of the given [elements] array.  
`FloatArray.plus(elements: FloatArray): FloatArray` Returns an array containing all elements of the original array and then all elements of the given [elements] array.  
`DoubleArray.plus(elements: DoubleArray): DoubleArray` Returns an array containing all



elements of the original array and then all elements of the given [elements] array.

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public expect operator fun
BooleanArray.plus(elements: BooleanArray): BooleanArray
Returns an array containing all elements of
the original array and then all elements of the given [elements] array.
public expect operator fun
CharArray.plus(elements: CharArray): CharArray
Returns an array containing all elements of the original
array and then the given [element].
@Suppress("NO_ACTUAL_FOR_EXPECT")
public expect fun <T>
Array<T>.plusElement(element: T): Array<T>
Sorts the array in-place.
sample
samples.collections.Arrays.Sorting.sortArray
public expect fun IntArray.sort(): Unit
Sorts the array
in-place.
sample
samples.collections.Arrays.Sorting.sortArray
public expect fun LongArray.sort():
Unit
Sorts the array in-place.
sample
samples.collections.Arrays.Sorting.sortArray
public expect fun ByteArray.sort(): Unit
Sorts the array in-place.
sample
samples.collections.Arrays.Sorting.sortArray
public expect fun ShortArray.sort(): Unit
Sorts the
array in-place.
sample
samples.collections.Arrays.Sorting.sortArray
public expect fun
DoubleArray.sort(): Unit
Sorts the array in-place.
sample
samples.collections.Arrays.Sorting.sortArray
public expect fun FloatArray.sort(): Unit
Sorts the
array in-place.
sample
samples.collections.Arrays.Sorting.sortArray
public expect fun
CharArray.sort(): Unit
Sorts the array in-place according to the natural order of its elements.
The
sort is _stable_. It means that equal elements preserve their
order relative to each other after sorting.
sample
samples.collections.Arrays.Sorting.sortArrayOfComparable
public expect fun <T : Comparable<T>>
Array<out T>.sort(): Unit
Sorts a range in the array in-place.
The sort is _stable_. It means that
equal elements preserve their order relative to each other after sorting.
param fromIndex the start of the
range (inclusive) to sort, 0 by default.
param toIndex the end of the range (exclusive) to sort, size of this array
by default.
throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater
than the size of this array.
throws IllegalArgumentException if [fromIndex] is greater than [toIndex].
sample
samples.collections.Arrays.Sorting.sortRangeOfArrayOfComparable
@SinceKotlin("1.4")
public expect fun <T : Comparable<T>> Array<out T>.sort(fromIndex: Int = 0, toIndex: Int = size): Unit
Sorts a
range in the array in-place.
param fromIndex the start of the range (inclusive) to sort, 0 by default.
param toIndex the end of the
range (exclusive) to sort, size of this array by default.
throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.
throws IllegalArgumentException if [fromIndex] is greater than [toIndex].
sample
samples.collections.Arrays.Sorting.sortRangeOfArray
@SinceKotlin("1.4")
public expect fun ByteArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit
Sorts a range in the array in-place.
param fromIndex the start of the range (inclusive) to sort, 0 by
default.
param toIndex the end of the range (exclusive) to sort, size of this array by default.
throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.
throws IllegalArgumentException if [fromIndex] is greater than [toIndex].
sample
samples.collections.Arrays.Sorting.sortRangeOfArray
@SinceKotlin("1.4")
public expect fun ShortArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit
Sorts a range in the array in-place.
param fromIndex the start of the range (inclusive) to sort, 0 by
default.
param toIndex the end of the
range (exclusive) to sort, size of this array by default.
throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.
throws IllegalArgumentException if [fromIndex] is greater than [toIndex].
sample
samples.collections.Arrays.Sorting.sortRangeOfArray
@SinceKotlin("1.4")
public expect fun IntArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit
Sorts a range in the array in-place.
param fromIndex the start of the range (inclusive) to sort, 0 by
default.
param toIndex the end of the range (exclusive) to sort, size of this array by
default.
throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than
the size of this array.
throws IllegalArgumentException if [fromIndex] is greater than [toIndex].

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@sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin("1.4")\npublic expect fun
LongArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Sorts a range in the array in-place.\n * \n *
@param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range
(exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is
less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if
[fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n
*/\n@SinceKotlin("1.4")\npublic expect fun FloatArray.sort(fromIndex: Int = 0, toIndex: Int = size):
Unit\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to
sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n *
@throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this
array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample
samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin("1.4")\npublic expect fun
DoubleArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Sorts a range in the array in-place.\n * \n
* @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range
(exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is
less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException
if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n
*/\n@SinceKotlin("1.4")\npublic expect fun CharArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n *
Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to
their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order
relative to each other after sorting.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param
toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less
than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is
greater than [toIndex].\n */\n@SinceKotlin("1.4")\npublic fun <T : Comparable<T>> Array<out
T>.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n    sortWith(reverseOrder(), fromIndex,
toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted
descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to
sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if
[fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws
IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin("1.4")\npublic fun
ByteArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n    sort(fromIndex, toIndex)\n    reverse(fromIndex,
toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted
descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to
sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if
[fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws
IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin("1.4")\npublic fun
ShortArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n    sort(fromIndex, toIndex)\n    reverse(fromIndex,
toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted
descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to
sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws
IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n *
@throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin("1.4")\npublic fun
IntArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n    sort(fromIndex, toIndex)\n    reverse(fromIndex,
toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted
descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to
sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if
[fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws
IllegalArgumentException if [fromIndex] is greater

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than [toIndex].\n *\n@SinceKotlin("1.4")\npublic fun LongArray.sortDescending(fromIndex: Int, toIndex: Int):
Unit {\n  sort(fromIndex, toIndex)\n  reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the
specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n *
@param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to
sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than
zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is
greater than [toIndex].\n *\n@SinceKotlin("1.4")\npublic fun FloatArray.sortDescending(fromIndex: Int, toIndex:
Int): Unit {\n  sort(fromIndex, toIndex)\n  reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array
in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n *
@param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to
sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the
size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n\n
*\n@SinceKotlin("1.4")\npublic fun DoubleArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n
  sort(fromIndex, toIndex)\n  reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the
array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n
* \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range
(exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is
greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n\n
*\n@SinceKotlin("1.4")\npublic fun CharArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n
  sort(fromIndex, toIndex)\n  reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts the array in-place according to the
order specified by the given [comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their
order relative to each other after sorting.\n *\npublic expect fun <T> Array<out T>.sortWith(comparator:
Comparator<in T>): Unit\n\n/**\n * Sorts a range in the array in-place with the given [comparator].\n
* \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n
*\n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the
range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex]
is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if
[fromIndex] is greater than [toIndex].\n *\npublic expect fun <T> Array<out T>.sortWith(comparator:
Comparator<in T>, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Returns an array of Boolean containing
all of the elements of this generic array.\n *\npublic fun Array<out Boolean>.toBooleanArray(): BooleanArray {\n
  return BooleanArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Byte containing all of the
elements of this generic array.\n *\npublic fun Array<out Byte>.toByteArray(): ByteArray
{\n  return ByteArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Char containing all of the
elements of this generic array.\n *\npublic fun Array<out Char>.toCharArray(): CharArray {\n  return
CharArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Double containing all of the elements of
this generic array.\n *\npublic fun Array<out Double>.toDoubleArray(): DoubleArray {\n  return
DoubleArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Float containing all of the elements of
this generic array.\n *\npublic fun Array<out Float>.toFloatArray(): FloatArray {\n  return
FloatArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Int containing all of the elements of this
generic array.\n *\npublic fun Array<out Int>.toIntArray(): IntArray {\n  return
IntArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Long containing all of the elements of this
generic array.\n *\npublic fun
Array<out Long>.toLongArray(): LongArray {\n  return LongArray(size) { index -> this[index] }\n}\n\n/**\n *
Returns an array of Short containing all of the elements of this generic array.\n *\npublic fun Array<out
Short>.toShortArray(): ShortArray {\n  return ShortArray(size) { index -> this[index] }\n}\n\n/**\n * Returns a
*typed* object array containing all of the elements of this primitive array.\n *\npublic expect fun
ByteArray.toTypedArray(): Array<Byte>\n\n/**\n * Returns a *typed* object array containing all of the elements of
this primitive array.\n *\npublic expect fun ShortArray.toTypedArray(): Array<Short>\n\n/**\n * Returns a
*typed* object array containing all of the elements of this primitive array.\n *\npublic expect fun

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IntArray.toArray(): Array<Int>\n\n\*\*\n \* Returns a \*typed\* object array containing all of the elements of this primitive array.\n \* \n\npublic expect fun LongArray.toArray(): Array<Long>\n\n\*\*\n \* Returns a \*typed\* object array containing all of the elements of this primitive array.\n \* \n\npublic expect fun FloatArray.toArray(): Array<Float>\n\n\*\*\n \* Returns a \*typed\* object array containing all of the elements of this primitive array.\n \* \n\npublic expect fun DoubleArray.toArray(): Array<Double>\n\n\*\*\n \* Returns a \*typed\* object array containing all of the elements of this primitive array.\n \* \n\npublic expect fun BooleanArray.toArray(): Array<Boolean>\n\n\*\*\n \* Returns a \*typed\* object array containing all of the elements of this primitive array.\n \* \n\npublic expect fun CharArray.toArray(): Array<Char>\n\n\*\*\n \* Returns a [Map] containing key-value pairs provided by [transform] function\n \* applied to elements of the given array.\n \* \n \* If any of two pairs would have the same key the last one gets added to the map.\n \* \n \* The returned map preserves the entry iteration order of the original array.\n \* \n \* @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n \* \n\npublic inline fun <T, K, V> Array<out T>.associate(transform: (T) -> Pair<K, V>): Map<K, V> {\n val capacity = mapCapacity(size).coerceAtLeast(16)\n return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n\*\*\n \* Returns a [Map] containing key-value pairs provided by [transform] function\n \* applied to elements of the given array.\n \* \n \* If any of two pairs would have the same key the last one gets added to the map.\n \* \n \* The returned map preserves the entry iteration order of the original array.\n \* \n \* @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n \* \n\npublic inline fun <K, V> ByteArray.associate(transform: (Byte) -> Pair<K, V>): Map<K, V> {\n val capacity = mapCapacity(size).coerceAtLeast(16)\n return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n\*\*\n \* Returns a [Map] containing key-value pairs provided by [transform] function\n \* applied to elements of the given array.\n \* \n \* If any of two pairs would have the same key the last one gets added to the map.\n \* \n \* The returned map preserves the entry iteration order of the original array.\n \* \n \* @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n \* \n\npublic inline fun <K, V> ShortArray.associate(transform: (Short) -> Pair<K, V>): Map<K, V> {\n val capacity = mapCapacity(size).coerceAtLeast(16)\n return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n\*\*\n \* Returns a [Map] containing key-value pairs provided by [transform] function\n \* applied to elements of the given array.\n \* \n \* If any of two pairs would have the same key the last one gets added to the map.\n \* \n \* The returned map preserves the entry iteration order of the original array.\n \* \n \* @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n \* \n\npublic inline fun <K, V> IntArray.associate(transform: (Int) -> Pair<K, V>): Map<K, V> {\n val capacity = mapCapacity(size).coerceAtLeast(16)\n return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n\*\*\n \* Returns a [Map] containing key-value pairs provided by [transform] function\n \* applied to elements of the given array.\n \* \n \* If any of two pairs would have the same key the last one gets added to the map.\n \* \n \* The returned map preserves the entry iteration order of the original array.\n \* \n \* @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n \* \n\npublic inline fun <K, V> LongArray.associate(transform: (Long) -> Pair<K, V>): Map<K, V> {\n val capacity = mapCapacity(size).coerceAtLeast(16)\n return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n\*\*\n \* Returns a [Map] containing key-value pairs provided by [transform] function\n \* applied to elements of the given array.\n \* \n \* If any of two pairs would have the same key the last one gets added to the map.\n \* \n \* The returned map preserves the entry iteration order of the original array.\n \* \n \* @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n \* \n\npublic inline fun <K, V> FloatArray.associate(transform: (Float) -> Pair<K, V>): Map<K, V> {\n val capacity = mapCapacity(size).coerceAtLeast(16)\n return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n\*\*\n \* Returns a [Map] containing key-value pairs provided by [transform] function\n \* applied to elements of the given array.\n \* \n \* If any of two pairs would have the same key the last one gets added to the map.\n \* \n \* The returned map preserves the entry iteration order of the original array.\n \* \n \* @sample

```

samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n *\npublic inline fun <K, V>
DoubleArray.associate(transform: (Double) -> Pair<K, V>): Map<K, V> {\n  val capacity =
mapCapacity(size).coerceAtLeast(16)\n  return associateTo(LinkedHashMap<K, V>(capacity),
transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n *
applied to elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added
to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n *\npublic inline fun <K, V>
BooleanArray.associate(transform: (Boolean) -> Pair<K, V>): Map<K, V> {\n  val capacity =
mapCapacity(size).coerceAtLeast(16)\n  return associateTo(LinkedHashMap<K, V>(capacity),
transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to
elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the
map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n *\npublic inline fun <K, V>
CharArray.associate(transform: (Char) -> Pair<K,
V>): Map<K, V> {\n  val capacity = mapCapacity(size).coerceAtLeast(16)\n  return
associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing the elements
from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If
any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n *
The returned map preserves the entry iteration order of the original array.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n *\npublic inline fun <T, K>
Array<out T>.associateBy(keySelector: (T) -> K): Map<K, T> {\n  val capacity =
mapCapacity(size).coerceAtLeast(16)\n  return associateByTo(LinkedHashMap<K, T>(capacity),
keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n *
returned from [keySelector] function applied to each element.\n * \n * If any two elements would
have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves
the entry iteration order of the original array.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n *\npublic inline fun <K>
ByteArray.associateBy(keySelector: (Byte) -> K): Map<K, Byte> {\n  val capacity =
mapCapacity(size).coerceAtLeast(16)\n  return associateByTo(LinkedHashMap<K, Byte>(capacity),
keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n *
returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key
returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration
order of the original array.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n *\npublic inline fun <K>
ShortArray.associateBy(keySelector: (Short) ->
K): Map<K, Short> {\n  val capacity = mapCapacity(size).coerceAtLeast(16)\n  return
associateByTo(LinkedHashMap<K, Short>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the
elements from the given array indexed by the key\n * returned from [keySelector] function applied to each
element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to
the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n *\npublic inline fun <K>
IntArray.associateBy(keySelector: (Int) -> K): Map<K, Int> {\n  val capacity =
mapCapacity(size).coerceAtLeast(16)\n  return associateByTo(LinkedHashMap<K, Int>(capacity),
keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n *
returned from [keySelector] function applied to each element.\n * \n * If any two elements
would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map
preserves the entry iteration order of the original array.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n *\npublic inline fun <K>

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LongArray.associateBy(keySelector: (Long) -> K): Map<K, Long> {\n  val capacity =
mapCapacity(size).coerceAtLeast(16)\n  return associateByTo(LinkedHashMap<K, Long>(capacity),
keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n *
returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key
returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration
order of the original array.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K>
FloatArray.associateBy(keySelector:
(Float) -> K): Map<K, Float> {\n  val capacity = mapCapacity(size).coerceAtLeast(16)\n  return
associateByTo(LinkedHashMap<K, Float>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the
elements from the given array indexed by the key\n * returned from [keySelector] function applied to each
element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to
the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K>
DoubleArray.associateBy(keySelector: (Double) -> K): Map<K, Double> {\n  val capacity =
mapCapacity(size).coerceAtLeast(16)\n  return associateByTo(LinkedHashMap<K, Double>(capacity),
keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n *
returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key
returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration
order of the original array.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K>
BooleanArray.associateBy(keySelector: (Boolean) -> K): Map<K, Boolean> {\n  val capacity =
mapCapacity(size).coerceAtLeast(16)\n  return associateByTo(LinkedHashMap<K, Boolean>(capacity),
keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n *
returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key
returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration
order of the original array.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K>
CharArray.associateBy(keySelector:
(Char) -> K): Map<K, Char> {\n  val capacity = mapCapacity(size).coerceAtLeast(16)\n  return
associateByTo(LinkedHashMap<K, Char>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the
values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given
array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the
map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n */\npublic inline
fun <T, K, V> Array<out T>.associateBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, V> {\n  val
capacity = mapCapacity(size).coerceAtLeast(16)\n  return associateByTo(LinkedHashMap<K, V>(capacity),
keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform]
and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would
have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves
the entry iteration order of the original array.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n */\npublic inline
fun <K, V> ByteArray.associateBy(keySelector: (Byte) -> K, valueTransform: (Byte) -> V): Map<K, V> {\n  val
capacity = mapCapacity(size).coerceAtLeast(16)\n  return associateByTo(LinkedHashMap<K, V>(capacity),
keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform]
and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would
have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves
the entry iteration order of the original

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array.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n *\npublic inline
fun <K, V> ShortArray.associateBy(keySelector: (Short) -> K, valueTransform: (Short) -> V): Map<K, V> {\n
val capacity = mapCapacity(size).coerceAtLeast(16)\n return associateByTo(LinkedHashMap<K, V>(capacity),
keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform]
and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would
have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves
the entry iteration order of the original array.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n *\npublic inline
fun <K, V> IntArray.associateBy(keySelector: (Int) -> K, valueTransform: (Int) -> V): Map<K, V> {\n val
capacity = mapCapacity(size).coerceAtLeast(16)\n
return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a
[Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to
elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last
one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n
* @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n
*\npublic inline fun <K, V> LongArray.associateBy(keySelector: (Long) -> K, valueTransform: (Long) -> V):
Map<K, V> {\n val capacity = mapCapacity(size).coerceAtLeast(16)\n return
associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map]
containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of
the given array.\n
* \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n
* \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n *\npublic inline
fun <K, V> FloatArray.associateBy(keySelector: (Float) -> K, valueTransform: (Float) -> V): Map<K, V> {\n val
capacity = mapCapacity(size).coerceAtLeast(16)\n return associateByTo(LinkedHashMap<K, V>(capacity),
keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform]
and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would
have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves
the entry iteration order of the original array.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n
*\npublic inline fun <K, V> DoubleArray.associateBy(keySelector: (Double) -> K, valueTransform: (Double) ->
V): Map<K, V> {\n val capacity = mapCapacity(size).coerceAtLeast(16)\n return
associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map]
containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of
the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets
added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n *
@sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n
*\npublic inline fun <K, V> BooleanArray.associateBy(keySelector: (Boolean) -> K, valueTransform: (Boolean) ->
V): Map<K, V> {\n val capacity = mapCapacity(size).coerceAtLeast(16)\n return
associateByTo(LinkedHashMap<K,
V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by
[valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two
elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The
returned map preserves the entry iteration order of the original array.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n *\npublic inline
fun <K, V> CharArray.associateBy(keySelector: (Char) -> K, valueTransform: (Char) -> V): Map<K, V> {\n val
capacity = mapCapacity(size).coerceAtLeast(16)\n return associateByTo(LinkedHashMap<K, V>(capacity),

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keySelector, valueTransform)\n}\n\n/\*\*\n \* Populates and returns the [destination] mutable map with key-value pairs,\n \* where key is provided by the [keySelector] function applied to each element of the given array\n \* and value is the element itself.\n

\* \n \* If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n

\* \n \* @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n \*/\npublic inline fun <T, K, M : MutableMap<in K, in T>> Array<out T>.associateByTo(destination: M, keySelector: (T) -> K): M {\n for (element in this) {\n destination.put(keySelector(element), element)\n }\n return destination}\n}\n\n/\*\*\n \* Populates and returns the [destination] mutable map with key-value pairs,\n \* where key is provided by the [keySelector] function applied to each element of the given array\n \* and value is the element itself.\n \* \n \* If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n \* \n \* @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n \*/\npublic inline fun <K, M : MutableMap<in K, in Byte>> ByteArray.associateByTo(destination: M, keySelector: (Byte) -> K): M {\n for (element in this) {\n destination.put(keySelector(element), element)\n }\n return destination}\n}\n\n/\*\*\n \* Populates and returns the [destination] mutable map with key-value pairs,\n \* where key is provided by the [keySelector] function applied to each element of the given array\n \* and value is the element itself.\n \* \n \* If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n \* \n \* @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n \*/\npublic inline fun <K, M : MutableMap<in K, in Short>> ShortArray.associateByTo(destination: M, keySelector: (Short) -> K): M {\n for (element in this) {\n destination.put(keySelector(element), element)\n }\n return destination}\n}\n\n/\*\*\n \* Populates and returns the [destination] mutable map with key-value pairs,\n \* where key is provided by the [keySelector] function applied to each element of the given array\n \* and value is the element itself.\n \* \n \* If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n \* \n \* @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n \*/\npublic inline fun <K, M : MutableMap<in K, in Int>> IntArray.associateByTo(destination: M, keySelector: (Int) -> K): M {\n for (element in this) {\n destination.put(keySelector(element), element)\n }\n return destination}\n}\n\n/\*\*\n \* Populates and returns the [destination] mutable map with key-value pairs,\n \* where key is provided by the [keySelector] function applied to each element of the given array\n \* and value is the element itself.\n \* \n \* If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n \* \n \* @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n \*/\npublic inline fun <K, M : MutableMap<in K, in Long>> LongArray.associateByTo(destination: M, keySelector: (Long) -> K): M {\n for (element in this) {\n destination.put(keySelector(element), element)\n }\n return destination}\n}\n\n/\*\*\n \* Populates and returns the [destination] mutable map with key-value pairs,\n \* where key is provided by the [keySelector] function applied to each element of the given array\n \* and value is the element itself.\n \* \n \* If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n \* \n \* @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n \*/\npublic inline fun <K, M : MutableMap<in K, in Float>> FloatArray.associateByTo(destination: M, keySelector: (Float) -> K): M {\n for (element in this) {\n destination.put(keySelector(element), element)\n }\n return destination}\n}\n\n/\*\*\n \* Populates and returns the [destination] mutable map with key-value pairs,\n \* where key is provided by the [keySelector] function applied to each element of the given array\n \* and value is the element itself.\n \* \n \* If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n \* \n \* @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n \*/\npublic inline fun <K, M : MutableMap<in K, in Double>> DoubleArray.associateByTo(destination: M, keySelector: (Double) -> K): M {\n for (element in this) {\n destination.put(keySelector(element), element)\n }\n return destination}\n}\n\n/\*\*\n \* Populates and returns the [destination] mutable map with key-value pairs,\n \* where key is provided by the [keySelector] function applied to each element of the given array\n \* and value is the element itself.\n \* \n \* If any



two elements would have the same key returned by [keySelector] the last one gets added to the map.

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@sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo
*/\npublic inline fun <K,
M : MutableMap<in K, in
Boolean>> BooleanArray.associateByTo(destination: M, keySelector: (Boolean) -> K): M {
    for (element in this) {
        destination.put(keySelector(element), element)
    }
    return destination
}
*/\n
*/\n * Populates and returns the [destination] mutable map with key-value pairs,
*/\n * where key is provided by the [keySelector] function applied to each element of the given array
*/\n * and value is the element itself.
*/\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.
*/\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo
*/\npublic inline fun <K, M :
MutableMap<in K, in Char>> CharArray.associateByTo(destination: M, keySelector: (Char) -> K): M {
    for (element in this) {
        destination.put(keySelector(element), element)
    }
    return destination
}
*/\n
*/\n * Populates and returns the [destination] mutable map with key-value pairs,
*/\n * where key is provided by the [keySelector] function and
*/\n * and value is provided by the [valueTransform] function applied to elements of the given array.
*/\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.
*/\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform
*/\npublic inline fun <T, K, V, M : MutableMap<in K, in V>> Array<out T>.associateByTo(destination: M, keySelector: (T) -> K, valueTransform: (T) -> V): M {
    for (element in this) {
        destination.put(keySelector(element), valueTransform(element))
    }
    return destination
}
*/\n
*/\n * Populates and returns the [destination] mutable map with key-value pairs,
*/\n * where key is provided by the [keySelector] function and
*/\n * and value is provided by the [valueTransform] function applied to elements of the given array.
*/\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.
*/\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform
*/\npublic inline fun <K, V, M : MutableMap<in K, in V>> ByteArray.associateByTo(destination: M, keySelector: (Byte) -> K, valueTransform: (Byte) -> V): M {
    for (element in this) {
        destination.put(keySelector(element), valueTransform(element))
    }
    return destination
}
*/\n
*/\n * Populates and returns the [destination] mutable map with key-value pairs,
*/\n * where key is provided by the [keySelector] function and
*/\n * and value is provided by the [valueTransform] function applied to elements of the given array.
*/\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.
*/\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform
*/\npublic inline fun <K, V, M : MutableMap<in K, in V>> ShortArray.associateByTo(destination: M, keySelector: (Short) -> K, valueTransform: (Short) -> V): M {
    for (element in this) {
        destination.put(keySelector(element), valueTransform(element))
    }
    return destination
}
*/\n
*/\n * Populates and returns the [destination] mutable map with key-value pairs,
*/\n * where key is provided by the [keySelector] function and
*/\n * and value is provided by the [valueTransform] function applied to elements of the given array.
*/\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.
*/\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform
*/\npublic inline fun <K, V, M : MutableMap<in K, in V>> IntArray.associateByTo(destination: M, keySelector: (Int) -> K, valueTransform: (Int) -> V): M {
    for (element in this) {
        destination.put(keySelector(element), valueTransform(element))
    }
    return destination
}
*/\n
*/\n * Populates and returns the [destination] mutable map with
key-value pairs,
*/\n * where key is provided by the [keySelector] function and
*/\n * and value is provided by the [valueTransform] function applied to elements of the given array.
*/\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.
*/\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform
*/\npublic inline fun <K, V, M : MutableMap<in K, in V>> LongArray.associateByTo(destination: M, keySelector: (Long) -> K, valueTransform: (Long) -> V): M {
    for (element in this) {
        destination.put(keySelector(element),

```

valueTransform(element))\n } return destination\n}\n\n/\*\*\n \* Populates and returns the [destination] mutable map with key-value pairs,\n \* where key is provided by the [keySelector] function and\n \* and value is provided by the [valueTransform] function applied to elements of the given array.\n \* \n \* If any two elements would have the same key returned

by [keySelector] the last one gets added to the map.\n \* \n \* @sample

```
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n *\npublic inline fun <K, V, M : MutableMap<in K, in V>> FloatArray.associateByTo(destination: M, keySelector: (Float) -> K, valueTransform: (Float) -> V): M {\n for (element in this) {\n destination.put(keySelector(element), valueTransform(element))\n }\n return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample
```

```
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n *\npublic inline fun <K, V, M : MutableMap<in K, in V>> DoubleArray.associateByTo(destination: M, keySelector: (Double) -> K, valueTransform: (Double) -> V): M {\n for (element in this) {\n destination.put(keySelector(element), valueTransform(element))\n }\n return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n *\npublic inline fun <K, V, M : MutableMap<in K, in V>> BooleanArray.associateByTo(destination: M, keySelector: (Boolean) -> K, valueTransform: (Boolean) -> V): M {\n for (element in this) {\n destination.put(keySelector(element), valueTransform(element))\n }\n return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample
```

```
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n *\npublic inline fun <K, V, M : MutableMap<in K, in V>> CharArray.associateByTo(destination: M, keySelector: (Char) -> K, valueTransform: (Char) -> V): M {\n for (element in this) {\n destination.put(keySelector(element), valueTransform(element))\n }\n return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added
```

to the map.\n \* \n \* @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n

```
*\npublic inline fun <T, K, V, M : MutableMap<in K, in V>> Array<out T>.associateTo(destination: M, transform: (T) -> Pair<K, V>): M {\n for (element in this) {\n destination += transform(element)\n }\n return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample
```

```
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n *\npublic inline fun <K, V, M : MutableMap<in K, in V>> ByteArray.associateTo(destination: M, transform: (Byte) -> Pair<K, V>): M {\n for (element in this) {\n destination += transform(element)\n }\n return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value
```

pairs\n \* provided by [transform] function applied to each element of the given array.\n \* \n \* If any of two pairs would have the same key the last one gets added to the map.\n \* \n \* @sample

```
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n *\npublic inline fun <K, V, M : MutableMap<in K, in V>> ShortArray.associateTo(destination: M, transform: (Short) -> Pair<K, V>): M {\n for (element in this) {\n destination += transform(element)\n }\n return destination\n}\n\n/**\n * Populates and
```

returns the [destination] mutable map with key-value pairs provided by [transform] function applied to each element of the given array. If any of two pairs would have the same key the last one gets added to the map.

```

@sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo
public inline fun <K, V, M : MutableMap<in K, in V>> IntArray.associateTo(destination: M, transform: (Int) -> Pair<K, V>): M {
    for (element in this) {
        destination += transform(element)
    }
    return destination
}

```

Populates and returns the [destination] mutable map with key-value pairs provided by [transform] function applied to each element of the given array. If any of two pairs would have the same key the last one gets added to the map.

```

@sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo
public inline fun <K, V, M : MutableMap<in K, in V>> LongArray.associateTo(destination: M, transform: (Long) -> Pair<K, V>): M {
    for (element in this) {
        destination += transform(element)
    }
    return destination
}

```

Populates and returns the [destination] mutable map with key-value pairs provided by [transform] function applied to each element of the given array. If any of two pairs would have the same key the last one gets added to the map.

```

@sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo
public inline fun <K, V, M : MutableMap<in K, in V>> FloatArray.associateTo(destination: M, transform: (Float) -> Pair<K, V>): M {
    for (element in this) {
        destination += transform(element)
    }
    return destination
}

```

Populates and returns the [destination] mutable map with key-value pairs provided by [transform] function applied to each element of the given array. If any of two pairs would have the same key the last one gets added to the map.

```

@sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo
public inline fun <K, V, M : MutableMap<in K, in V>> DoubleArray.associateTo(destination: M, transform: (Double) -> Pair<K, V>): M {
    for (element in this) {
        destination += transform(element)
    }
    return destination
}

```

Populates and returns the [destination] mutable map with key-value pairs provided by [transform] function applied to each element of the given array. If any of two pairs would have the same key the last one gets added to the map.

```

@sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo
public inline fun <K, V, M : MutableMap<in K, in V>> BooleanArray.associateTo(destination: M, transform: (Boolean) -> Pair<K, V>): M {
    for (element in this) {
        destination += transform(element)
    }
    return destination
}

```

Populates and returns the [destination] mutable map with key-value pairs provided by [transform] function applied to each element of the given array. If any of two pairs would have the same key the last one gets added to the map.

```

@sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo
public inline fun <K, V, M : MutableMap<in K, in V>> CharArray.associateTo(destination: M, transform: (Char) -> Pair<K, V>): M {
    for (element in this) {
        destination += transform(element)
    }
    return destination
}

```

Returns a [Map] where keys are elements from the given array and values are produced by the [valueSelector] function applied to each element. If any two elements are equal, the last one gets added to the map. The returned map preserves the entry iteration order of the original array.

```

@sample samples.collections.Collections.Transformations.associateWith
@SinceKotlin("1.4")
public inline fun <K, V> Array<out K>.associateWith(valueSelector: (K) -> V): Map<K, V> {
    val result = LinkedHashMap<K, V>(mapCapacity(size).coerceAtLeast(16))
    return associateWithTo(result, valueSelector)
}

```

Returns a [Map] where keys are elements from the given array and values are produced by the [valueSelector] function applied to each element. If any two elements are equal, the last one gets added to the map. The returned map preserves the entry iteration order of the original array.

```

@sample samples.collections.Collections.Transformations.associateWith
@SinceKotlin("1.4")
@kotlin.internal.InlineOnly
public inline fun <V> ByteArray.associateWith(valueSelector: (Byte) -> V): Map<Byte, V> {
    val result = LinkedHashMap<Byte, V>(mapCapacity(size).coerceAtLeast(16))
    return associateWithTo(result, valueSelector)
}

```

Returns a [Map] where keys are elements from the given array and values are produced by the [valueSelector] function

applied to each element.\n \* \n \* If any two elements are equal, the last one gets added to the map.\n \* \n \* The returned map preserves the entry iteration order of the original array.\n \* \n \* @sample samples.collections.Collections.Transformations.associateWith

```

*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <V>
ShortArray.associateWith(valueSelector: (Short) -> V): Map<Short, V> {\n    val result = LinkedHashMap<Short,
V>(mapCapacity(size).coerceAtLeast(16))\n    return associateWithTo(result,
valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <V>
IntArray.associateWith(valueSelector: (Int) -> V): Map<Int, V> {\n    val result = LinkedHashMap<Int,
V>(mapCapacity(size).coerceAtLeast(16))\n    return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <V>
LongArray.associateWith(valueSelector: (Long) -> V): Map<Long, V> {\n    val result = LinkedHashMap<Long,
V>(mapCapacity(size).coerceAtLeast(16))\n    return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <V>
FloatArray.associateWith(valueSelector: (Float) -> V): Map<Float, V> {\n    val result = LinkedHashMap<Float,
V>(mapCapacity(size).coerceAtLeast(16))\n    return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <V>
DoubleArray.associateWith(valueSelector: (Double) -> V): Map<Double, V> {\n    val result =
LinkedHashMap<Double, V>(mapCapacity(size).coerceAtLeast(16))\n    return associateWithTo(result,
valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <V>
BooleanArray.associateWith(valueSelector: (Boolean) -> V): Map<Boolean, V> {\n    val result =
LinkedHashMap<Boolean, V>(mapCapacity(size).coerceAtLeast(16))\n    return associateWithTo(result,
valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <V>
CharArray.associateWith(valueSelector: (Char) -> V): Map<Char, V> {\n    val result

```

```

= LinkedHashMap<Char, V>(mapCapacity(size.coerceAtMost(128)).coerceAtLeast(16))\n  return
associateWithTo(result, valueSelector)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-
value pairs for each element of the given array,\n * where key is the element itself and value is provided by the
[valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the
former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n
*\n*\n@SinceKotlin("1.4")\npublic inline fun <K, V, M : MutableMap<in K, in V>> Array<out
K>.associateWithTo(destination: M, valueSelector: (K) -> V): M {\n  for (element in this) {\n
destination.put(element, valueSelector(element))\n  }\n  return destination\n}\n\n/**\n * Populates and returns the
[destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element
itself and value is provided by
the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the
former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n
*\n*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in Byte, in V>>
ByteArray.associateWithTo(destination: M, valueSelector: (Byte) -> V): M {\n  for (element in this) {\n
destination.put(element, valueSelector(element))\n  }\n  return destination\n}\n\n/**\n * Populates and returns the
[destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element
itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are
equal, the last one overwrites the former value in the map.\n * \n * @sample
samples.collections.Collections.Transformations.associateWithTo\n
*\n*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic
inline fun <V, M : MutableMap<in Short, in V>> ShortArray.associateWithTo(destination: M, valueSelector:
(Short) -> V): M {\n  for (element in this) {\n    destination.put(element, valueSelector(element))\n  }\n  return
destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element
of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied
to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n *
@sample samples.collections.Collections.Transformations.associateWithTo\n
*\n*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in Int, in V>>
IntArray.associateWithTo(destination: M, valueSelector: (Int) -> V): M {\n  for (element in this) {\n
destination.put(element, valueSelector(element))\n  }\n  return destination\n}\n\n/**\n * Populates and returns the
[destination]
mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value
is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one
overwrites the former value in the map.\n * \n * @sample
samples.collections.Collections.Transformations.associateWithTo\n
*\n*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in Long, in V>>
LongArray.associateWithTo(destination: M, valueSelector: (Long) -> V): M {\n  for (element in this) {\n
destination.put(element, valueSelector(element))\n  }\n  return destination\n}\n\n/**\n * Populates and returns the
[destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element
itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are
equal, the last one overwrites the former value in the map.\n * \n *
*\n * @sample samples.collections.Collections.Transformations.associateWithTo\n
*\n*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in Float, in V>>
FloatArray.associateWithTo(destination: M, valueSelector: (Float) -> V): M {\n  for (element in this) {\n
destination.put(element, valueSelector(element))\n  }\n  return destination\n}\n\n/**\n * Populates and returns the
[destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element
itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are
equal, the last one overwrites the former value in the map.\n * \n * @sample
samples.collections.Collections.Transformations.associateWithTo\n

```



```

toCollection(HashSet<Long>(mapCapacity(size)))\n\n/**\n * Returns a new [HashSet] of all elements.\n\n */\npublic fun FloatArray.toHashSet(): HashSet<Float> {\n    return\n    toCollection(HashSet<Float>(mapCapacity(size)))\n\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n\n */\npublic fun DoubleArray.toHashSet(): HashSet<Double> {\n    return\n    toCollection(HashSet<Double>(mapCapacity(size)))\n\n}\n\n/**\n * Returns a new [HashSet] of all\n    elements.\n\n */\npublic fun BooleanArray.toHashSet(): HashSet<Boolean> {\n    return\n    toCollection(HashSet<Boolean>(mapCapacity(size)))\n\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n\n */\npublic fun CharArray.toHashSet(): HashSet<Char> {\n    return\n    toCollection(HashSet<Char>(mapCapacity(size.coerceAtMost(128))))\n\n}\n\n/**\n * Returns a [List] containing all\n    elements.\n\n */\npublic fun <T> Array<out T>.toList(): List<T> {\n    return when (size) {\n        0 -> emptyList()\n        1 -> listOf(this[0])\n        else -> this.toMutableList()\n    }\n\n}\n\n/**\n * Returns a [List] containing all\n    elements.\n\n */\npublic fun ByteArray.toList(): List<Byte> {\n    return when (size) {\n        0 -> emptyList()\n        1 -> listOf(this[0])\n        else -> this.toMutableList()\n    }\n\n}\n\n/**\n * Returns a [List] containing all elements.\n\n */\npublic fun ShortArray.toList(): List<Short> {\n    return when (size) {\n        0 -> emptyList()\n        1 -> listOf(this[0])\n        else -> this.toMutableList()\n    }\n\n}\n\n/**\n * Returns a [List] containing all elements.\n\n */\npublic fun IntArray.toList(): List<Int> {\n    return\n    when (size) {\n        0 -> emptyList()\n        1 -> listOf(this[0])\n        else -> this.toMutableList()\n    }\n\n}\n\n/**\n * Returns a [List] containing all elements.\n\n */\npublic fun LongArray.toList(): List<Long> {\n    return when (size)\n    {\n        0 -> emptyList()\n        1 -> listOf(this[0])\n        else -> this.toMutableList()\n    }\n\n}\n\n/**\n * Returns a\n    [List] containing all elements.\n\n */\npublic fun FloatArray.toList(): List<Float> {\n    return when (size) {\n        0 ->\n        emptyList()\n        1 -> listOf(this[0])\n        else -> this.toMutableList()\n    }\n\n}\n\n/**\n * Returns a [List]\n    containing all elements.\n\n */\npublic fun DoubleArray.toList(): List<Double> {\n    return when (size) {\n        0 ->\n        emptyList()\n        1\n        -> listOf(this[0])\n        else -> this.toMutableList()\n    }\n\n}\n\n/**\n * Returns a [List] containing all elements.\n\n */\npublic fun BooleanArray.toList(): List<Boolean> {\n    return when (size) {\n        0 -> emptyList()\n        1 ->\n        listOf(this[0])\n        else -> this.toMutableList()\n    }\n\n}\n\n/**\n * Returns a [List] containing all elements.\n\n */\npublic fun CharArray.toList(): List<Char> {\n    return when (size) {\n        0 -> emptyList()\n        1 ->\n        listOf(this[0])\n        else -> this.toMutableList()\n    }\n\n}\n\n/**\n * Returns a new [MutableList] filled with all\n    elements of this array.\n\n */\npublic fun <T> Array<out T>.toMutableList(): MutableList<T> {\n    return\n    ArrayList(this.asCollection())\n\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n\n */\npublic fun ByteArray.toMutableList(): MutableList<Byte> {\n    val list = ArrayList<Byte>(size)\n    for (item\n    in this) list.add(item)\n    return list\n\n}\n\n/**\n * Returns a new [MutableList]\n    filled with all elements of this array.\n\n */\npublic fun ShortArray.toMutableList(): MutableList<Short> {\n    val list\n    = ArrayList<Short>(size)\n    for (item in this) list.add(item)\n    return list\n\n}\n\n/**\n * Returns a new\n    [MutableList] filled with all elements of this array.\n\n */\npublic fun IntArray.toMutableList(): MutableList<Int> {\n    val list = ArrayList<Int>(size)\n    for (item in this) list.add(item)\n    return list\n\n}\n\n/**\n * Returns a new\n    [MutableList] filled with all elements of this array.\n\n */\npublic fun LongArray.toMutableList():\n    MutableList<Long> {\n    val list = ArrayList<Long>(size)\n    for (item in this) list.add(item)\n    return\n    list\n\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n\n */\npublic fun\n    FloatArray.toMutableList(): MutableList<Float> {\n    val list = ArrayList<Float>(size)\n    for (item in this)\n    list.add(item)\n    return list\n\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of\n    this array.\n\n */\npublic fun DoubleArray.toMutableList(): MutableList<Double> {\n    val list =\n    ArrayList<Double>(size)\n    for (item in this) list.add(item)\n    return list\n\n}\n\n/**\n * Returns a new\n    [MutableList] filled with all elements of this array.\n\n */\npublic fun BooleanArray.toMutableList():\n    MutableList<Boolean> {\n    val list = ArrayList<Boolean>(size)\n    for (item in this) list.add(item)\n    return\n    list\n\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n\n */\npublic fun\n    CharArray.toMutableList(): MutableList<Char> {\n    val list = ArrayList<Char>(size)\n    for (item in this)\n    list.add(item)\n    return list\n\n}\n\n/**\n * Returns a [Set] of all elements.\n\n */\n * \n * The returned set preserves the

```

```

element iteration order of the original array.\n */\npublic fun <T> Array<out T>.toSet(): Set<T> {\n    return when
(size) {\n        0 -> emptySet()\n        1 -> setOf(this[0])\n        else ->
toCollection(LinkedHashSet<T>(mapCapacity(size)))\n    }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of
the original array.\n */\npublic fun ByteArray.toSet(): Set<Byte> {\n    return when (size) {\n        0 -> emptySet()\n
        1 -> setOf(this[0])\n        else -> toCollection(LinkedHashSet<Byte>(mapCapacity(size)))\n    }\n}\n\n/**\n *
Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n
*/\npublic fun ShortArray.toSet(): Set<Short> {\n    return when (size) {\n        0 -> emptySet()\n        1 ->
setOf(this[0])\n        else -> toCollection(LinkedHashSet<Short>(mapCapacity(size)))\n    }\n}\n\n/**\n * Returns a
[Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic
fun IntArray.toSet(): Set<Int> {\n    return when (size) {\n        0 -> emptySet()\n        1 -> setOf(this[0])\n
        else -> toCollection(LinkedHashSet<Int>(mapCapacity(size)))\n    }\n}\n\n/**\n * Returns a [Set] of all
elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun
LongArray.toSet(): Set<Long> {\n    return when (size) {\n        0 -> emptySet()\n        1 -> setOf(this[0])\n
        else -> toCollection(LinkedHashSet<Long>(mapCapacity(size)))\n    }\n}\n\n/**\n * Returns a [Set] of all
elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun
FloatArray.toSet(): Set<Float> {\n    return when (size) {\n        0 -> emptySet()\n        1 -> setOf(this[0])\n
        else -> toCollection(LinkedHashSet<Float>(mapCapacity(size)))\n    }\n}\n\n/**\n * Returns a [Set] of all
elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun
DoubleArray.toSet(): Set<Double> {\n    return when (size) {\n        0 -> emptySet()\n        1 -> setOf(this[0])\n
        else -> toCollection(LinkedHashSet<Double>(mapCapacity(size)))\n    }\n}\n\n/**\n * Returns a [Set] of all
elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun
BooleanArray.toSet(): Set<Boolean> {\n    return when (size) {\n        0 -> emptySet()\n        1 -> setOf(this[0])\n
        else -> toCollection(LinkedHashSet<Boolean>(mapCapacity(size)))\n    }\n}\n\n/**\n * Returns a [Set] of all
elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun
CharArray.toSet(): Set<Char> {\n    return when (size) {\n        0 -> emptySet()\n        1 -> setOf(this[0])\n
        else -> toCollection(LinkedHashSet<Char>(mapCapacity(size.coerceAtMost(128))))\n    }\n}\n\n/**\n * Returns
a single list of all elements yielded from results of [transform] function being invoked on
each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic
inline fun <T,\n R> Array<out T>.flatMap(transform: (T) -> Iterable<R>): List<R> {\n    return flatMapTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being
invoked on each element of original array.\n * \n * @sample\n samples.collections.Collections.Transformations.flatMap\n
*/\npublic inline fun <R> ByteArray.flatMap(transform: (Byte) -> Iterable<R>): List<R> {\n    return flatMapTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being
invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n
*/\npublic inline fun <R> ShortArray.flatMap(transform: (Short) -> Iterable<R>): List<R> {\n    return flatMapTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being
invoked on each element of original array.\n * \n * @sample\n samples.collections.Collections.Transformations.flatMap\n
*/\npublic inline fun <R> IntArray.flatMap(transform: (Int) -> Iterable<R>): List<R> {\n    return flatMapTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being
invoked on each element of original array.\n * \n * @sample\n samples.collections.Collections.Transformations.flatMap\n
*/\npublic inline fun <R> LongArray.flatMap(transform: (Long) -> Iterable<R>): List<R> {\n    return flatMapTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being
invoked on each element of original array.\n * \n * @sample\n samples.collections.Collections.Transformations.flatMap\n
*/\npublic inline fun <R> FloatArray.flatMap(transform:

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(Float) -> Iterable<R>): List<R> {\n  return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single
list of all elements yielded from results of [transform]
function being invoked on each element of original array.\n * \n * @sample
samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R>
DoubleArray.flatMap(transform: (Double) -> Iterable<R>): List<R> {\n  return flatMapTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being
invoked on each element of original array.\n * \n * @sample
samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R>
BooleanArray.flatMap(transform: (Boolean) -> Iterable<R>): List<R> {\n  return flatMapTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being
invoked on each element of original array.\n * \n * @sample
samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R> CharArray.flatMap(transform:
(Char) -> Iterable<R>): List<R> {\n  return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of
original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n
*/\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapSequence")\npublic inline fun <T, R> Array<out
T>.flatMap(transform: (T) -> Sequence<R>): List<R> {\n  return flatMapTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being
invoked on each element\n * and its index in the original array.\n * \n * @sample
samples.collections.Collections.Transformations.flatMapIndexed\n
*/\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedIterable")\n@kotlin.internal.InlineOnly\npublic
inline fun
<T, R> Array<out T>.flatMapIndexed(transform: (index: Int, T) -> Iterable<R>): List<R> {\n  return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from
results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n *
@sample samples.collections.Collections.Transformations.flatMapIndexed\n
*/\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedIterable")\n@kotlin.internal.InlineOnly\npublic
inline fun <R> ByteArray.flatMapIndexed(transform: (index: Int, Byte) -> Iterable<R>): List<R> {\n  return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from
results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n *
@sample samples.collections.Collections.Transformations.flatMapIndexed\n
*/\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedIterable")\n@kotlin.internal.InlineOnly\npublic
inline fun <R> ShortArray.flatMapIndexed(transform: (index: Int, Short) -> Iterable<R>): List<R> {\n  return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from
results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n *
@sample samples.collections.Collections.Transformations.flatMapIndexed\n
*/\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedIterable")\n@kotlin.internal.InlineOnly\npublic
inline fun <R> IntArray.flatMapIndexed(transform: (index: Int, Int) -> Iterable<R>): List<R> {\n  return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from
results of [transform] function being invoked on each element\n *
and its index in the original array.\n * \n * @sample
samples.collections.Collections.Transformations.flatMapIndexed\n
*/\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

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ByLambdaReturnType\n@kotlin.jvm.JvmName("\\flatMapIndexedIterable")\n@kotlin.internal.InlineOnly\npublic
inline fun <R> LongArray.flatMapIndexed(transform: (index: Int, Long) -> Iterable<R>): List<R> {\n  return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from
results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n *
@sample samples.collections.Collections.Transformations.flatMapIndexed\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\\flatMapIndexedIterable")\n@kotlin.internal.InlineOnly\npublic
inline fun <R> FloatArray.flatMapIndexed(transform: (index: Int, Float) -> Iterable<R>): List<R> {\n  return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from
results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n *
@sample samples.collections.Collections.Transformations.flatMapIndexed\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\\flatMapIndexedIterable")\n@kotlin.internal.InlineOnly\npublic
inline fun <R> DoubleArray.flatMapIndexed(transform: (index: Int, Double) -> Iterable<R>): List<R> {\n  return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from
results of [transform] function being invoked on each element\n * and its index in the
original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\\flatMapIndexedIterable")\n@kotlin.internal.InlineOnly\npublic
inline fun <R> BooleanArray.flatMapIndexed(transform: (index: Int, Boolean) -> Iterable<R>): List<R> {\n
return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded
from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n *
@sample samples.collections.Collections.Transformations.flatMapIndexed\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\\flatMapIndexedIterable")\n@kotlin.internal.InlineOnly\npublic
inline fun <R> CharArray.flatMapIndexed(transform: (index: Int, Char)
-> Iterable<R>): List<R> {\n  return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a
single list of all elements yielded from results of [transform] function being invoked on each element\n * and its
index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\\flatMapIndexedSequence")\n@kotlin.internal.InlineOnly\npubli
c inline fun <T, R> Array<out T>.flatMapIndexed(transform: (index: Int, T) -> Sequence<R>): List<R> {\n  return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Appends all elements yielded from results of
[transform] function being invoked on each element\n * and its index in the original array, to the given
[destination].\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\\flatMapIndexedIterableTo")\n@kotlin.internal.InlineOnly\npubli
c
inline fun <T, R, C : MutableCollection<in R>> Array<out T>.flatMapIndexedTo(destination: C, transform: (index:
Int, T) -> Iterable<R>): C {\n  var index = 0\n  for (element in this) {\n    val list = transform(index++,
element)\n    destination.addAll(list)\n  }\n  return destination\n}\n\n/**\n * Appends all elements yielded from
results of [transform] function being invoked on each element\n * and its index in the original array, to the given
[destination].\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\\flatMapIndexedIterableTo")\n@kotlin.internal.InlineOnly\npubli
c inline fun <R, C : MutableCollection<in R>> ByteArray.flatMapIndexedTo(destination: C, transform: (index: Int,
Byte) -> Iterable<R>): C {\n  var index = 0\n  for (element in this) {\n    val

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list = transform(index++, element)\n    destination.addAll(list)\n    }\n    return destination\n}\n\n/**\n * Appends
all elements yielded from results of [transform] function being invoked on each element\n * and its index in the
original array, to the given [destination].\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedIterableTo")\n@kotlin.internal.InlineOnly\npubli
c inline fun <R, C : MutableCollection<in R>> ShortArray.flatMapIndexedTo(destination: C, transform: (index: Int,
Short) -> Iterable<R>): C {\n    var index = 0\n    for (element in this) {\n        val list = transform(index++,
element)\n        destination.addAll(list)\n    }\n    return destination\n}\n\n/**\n * Appends all elements yielded from
results of [transform] function being invoked on each element\n * and its index in the original array, to the given
[destination].\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedIterableTo")\n@kotlin.internal.InlineOnly\npubli
c
inline fun <R, C : MutableCollection<in R>> IntArray.flatMapIndexedTo(destination: C, transform: (index: Int,
Int) -> Iterable<R>): C {\n    var index = 0\n    for (element in this) {\n        val list = transform(index++, element)\n
        destination.addAll(list)\n    }\n    return destination\n}\n\n/**\n * Appends all elements yielded from results of
[transform] function being invoked on each element\n * and its index in the original array, to the given
[destination].\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedIterableTo")\n@kotlin.internal.InlineOnly\npubli
c inline fun <R, C : MutableCollection<in R>> LongArray.flatMapIndexedTo(destination: C, transform: (index: Int,
Long)
-> Iterable<R>): C {\n    var index = 0\n    for (element in this) {\n        val list = transform(index++, element)\n
destination.addAll(list)\n    }\n    return destination\n}\n\n/**\n * Appends all elements yielded from results of
[transform] function being invoked on each element\n * and its index in the original array, to the given
[destination].\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedIterableTo")\n@kotlin.internal.InlineOnly\npubli
c inline fun <R, C : MutableCollection<in R>> FloatArray.flatMapIndexedTo(destination: C, transform: (index: Int,
Float) -> Iterable<R>): C {\n    var index = 0\n    for (element in this) {\n        val list = transform(index++,
element)\n        destination.addAll(list)\n    }\n    return destination\n}\n\n/**\n * Appends all elements yielded from
results of [transform] function being invoked on each element\n * and
its index in the original array, to the given [destination].\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedIterableTo")\n@kotlin.internal.InlineOnly\npubli
c inline fun <R, C : MutableCollection<in R>> DoubleArray.flatMapIndexedTo(destination: C, transform: (index:
Int, Double) -> Iterable<R>): C {\n    var index = 0\n    for (element in this) {\n        val list = transform(index++,
element)\n        destination.addAll(list)\n    }\n    return destination\n}\n\n/**\n * Appends all elements yielded from
results of [transform] function being invoked on each element\n * and its index in the original array, to the given
[destination].\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedIterableTo")\n@kotlin.internal.InlineOnly\npubli
c inline fun <R, C : MutableCollection<in
R>> BooleanArray.flatMapIndexedTo(destination: C, transform: (index: Int, Boolean) -> Iterable<R>): C {\n    var
index = 0\n    for (element in this) {\n        val list = transform(index++, element)\n        destination.addAll(list)\n
    }\n    return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being
invoked on each element\n * and its index in the original array, to the given [destination].\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

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ByLambdaReturnType\n@kotlin.jvm.JvmName("\flatMapIndexedIterableTo")\n@kotlin.internal.InlineOnly\npubli
c inline fun <R, C : MutableCollection<in R>> CharArray.flatMapIndexedTo(destination: C, transform: (index: Int,
Char) -> Iterable<R>): C {\n  var index = 0\n  for (element in this) {\n    val list = transform(index++,
element)\n    destination.addAll(list)\n  }\n  return destination\n}\n\n/**\n * Appends all
elements yielded from results of [transform] function being invoked on each element\n * and its index in the
original array, to the given [destination].\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\flatMapIndexedSequenceTo")\n@kotlin.internal.InlineOnly\npu
blic inline fun <T, R, C : MutableCollection<in R>> Array<out T>.flatMapIndexedTo(destination: C, transform:
(index: Int, T) -> Sequence<R>): C {\n  var index = 0\n  for (element in this) {\n    val list =
transform(index++, element)\n    destination.addAll(list)\n  }\n  return destination\n}\n\n/**\n * Appends all
elements yielded from results of [transform] function being invoked on each element of original array, to the given
[destination].\n */\npublic inline fun <T, R, C : MutableCollection<in R>> Array<out T>.flatMapTo(destination: C,
transform: (T) -> Iterable<R>): C {\n  for (element in this) {\n
    val list = transform(element)\n    destination.addAll(list)\n  }\n  return destination\n}\n\n/**\n * Appends all
elements yielded from results of [transform] function being invoked on each element of original array, to the given
[destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> ByteArray.flatMapTo(destination: C,
transform: (Byte) -> Iterable<R>): C {\n  for (element in this) {\n    val list = transform(element)\n
destination.addAll(list)\n  }\n  return destination\n}\n\n/**\n * Appends all elements yielded from results of
[transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline
fun <R, C : MutableCollection<in R>> ShortArray.flatMapTo(destination: C, transform: (Short) -> Iterable<R>): C
{\n  for (element in this) {\n    val list = transform(element)\n    destination.addAll(list)\n  }\n  return
destination\n}\n\n/**\n * Appends all elements yielded from results
of [transform] function being invoked on each element of original array, to the given [destination].\n */\npublic
inline fun <R, C : MutableCollection<in R>> IntArray.flatMapTo(destination: C, transform: (Int) -> Iterable<R>): C
{\n  for (element in this) {\n    val list = transform(element)\n    destination.addAll(list)\n  }\n  return
destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each
element of original array, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>>
LongArray.flatMapTo(destination: C, transform: (Long) -> Iterable<R>): C {\n  for (element in this) {\n    val
list = transform(element)\n    destination.addAll(list)\n  }\n  return destination\n}\n\n/**\n * Appends all
elements yielded from results of [transform] function being invoked on each element of original array, to the given
[destination].\n */\npublic inline fun <R, C : MutableCollection<in R>>
FloatArray.flatMapTo(destination: C, transform: (Float) -> Iterable<R>): C {\n  for (element in this) {\n    val
list = transform(element)\n    destination.addAll(list)\n  }\n  return destination\n}\n\n/**\n * Appends all
elements yielded from results of [transform] function being invoked on each element of original array, to the given
[destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> DoubleArray.flatMapTo(destination: C,
transform: (Double) -> Iterable<R>): C {\n  for (element in this) {\n    val list = transform(element)\n
destination.addAll(list)\n  }\n  return destination\n}\n\n/**\n * Appends all elements yielded from results of
[transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline
fun <R, C : MutableCollection<in R>> BooleanArray.flatMapTo(destination: C, transform: (Boolean) ->
Iterable<R>): C {\n  for (element in this) {\n    val list = transform(element)\n
destination.addAll(list)\n  }\n  return destination\n}\n\n/**\n * Appends all elements yielded from results of
[transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline
fun <R, C : MutableCollection<in R>> CharArray.flatMapTo(destination: C, transform: (Char) -> Iterable<R>): C
{\n  for (element in this) {\n    val list = transform(element)\n    destination.addAll(list)\n  }\n  return
destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each
element of original array, to the given [destination].\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

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ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapSequenceTo")\npublic inline fun <T, R, C :
MutableCollection<in R>> Array<out T>.flatMapTo(destination: C, transform: (T) -> Sequence<R>): C {\n for
(element in this) {\n val list = transform(element)\n
destination.addAll(list)\n } \n return destination\n}\n\n/**\n * Groups elements of the original array by the
key returned by the given [keySelector] function\n * applied to each element and returns a map where each group
key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order
of the keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <T, K> Array<out
T>.groupBy(keySelector: (T) -> K): Map<K, List<T>> {\n return groupByTo(LinkedHashMap<K,
MutableList<T>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the
given [keySelector] function\n * applied to each element and returns a map where each group key is associated with
a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced
from the original array.\n * \n *
@sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K>
ByteArray.groupBy(keySelector: (Byte) -> K): Map<K, List<Byte>> {\n return groupByTo(LinkedHashMap<K,
MutableList<Byte>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the
given [keySelector] function\n * applied to each element and returns a map where each group key is associated with
a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced
from the original array.\n * \n *
@sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> ShortArray.groupBy(keySelector: (Short) -> K): Map<K, List<Short>> {\n return
groupByTo(LinkedHashMap<K, MutableList<Short>>(), keySelector)\n}\n\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map
where each group key is associated
with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys
produced from the original array.\n * \n *
@sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> IntArray.groupBy(keySelector: (Int) -> K): Map<K, List<Int>> {\n return
groupByTo(LinkedHashMap<K, MutableList<Int>>(), keySelector)\n}\n\n/**\n * Groups elements of the original
array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where
each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry
iteration order of the keys produced from the original array.\n * \n *
@sample
samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> LongArray.groupBy(keySelector: (Long) -> K): Map<K, List<Long>> {\n return
groupByTo(LinkedHashMap<K, MutableList<Long>>(), keySelector)\n}\n\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map
where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the
entry iteration order of the keys produced from the original array.\n * \n *
@sample
samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> FloatArray.groupBy(keySelector: (Float) -> K): Map<K, List<Float>> {\n return groupByTo(LinkedHashMap<K,
MutableList<Float>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the
given [keySelector] function\n * applied to each element and returns a map where each group key is associated with
a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced
from the original array.\n * \n *
@sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> DoubleArray.groupBy(keySelector:
(Double) -> K): Map<K, List<Double>> {\n return groupByTo(LinkedHashMap<K, MutableList<Double>>(),
keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector]
function\n * applied to each element and returns a map where each group key is associated with a list of
corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the
original array.\n * \n *
@sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun

```

```

<K> BooleanArray.groupBy(keySelector: (Boolean) -> K): Map<K, List<Boolean>> {\n  return
groupByTo(LinkedHashMap<K, MutableList<Boolean>>(), keySelector)\n}\n\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map
where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the
entry iteration
order of the keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K>
CharArray.groupBy(keySelector: (Char) -> K): Map<K, List<Char>> {\n  return groupByTo(LinkedHashMap<K,
MutableList<Char>>(), keySelector)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied
to each element of the original array\n * by the key returned by the given [keySelector] function applied to the
element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The
returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <T, K, V>
Array<out T>.groupBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, List<V>> {\n  return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the
key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key
is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the
keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V>
ByteArray.groupBy(keySelector: (Byte) -> K, valueTransform: (Byte) -> V): Map<K, List<V>> {\n  return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values
returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by
the given [keySelector] function applied to the element\n * and returns a map where each group key is associated
with a list of corresponding values.\n * \n * The returned
map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V>
ShortArray.groupBy(keySelector: (Short) -> K, valueTransform: (Short) -> V): Map<K, List<V>> {\n  return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values
returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by
the given [keySelector] function applied to the element\n * and returns a map where each group key is associated
with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys
produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V>
IntArray.groupBy(keySelector: (Int) -> K, valueTransform: (Int) -> V): Map<K, List<V>> {\n
  return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups
values returned by the [valueTransform] function applied to each element of the original array\n * by the key
returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is
associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the
keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V>
LongArray.groupBy(keySelector: (Long) -> K, valueTransform: (Long) -> V): Map<K, List<V>> {\n  return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values
returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by
the given [keySelector] function applied to the element\n * and returns a map
where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the
entry iteration order of the keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V>

```

```

FloatArray.groupBy(keySelector: (Float) -> K, valueTransform: (Float) -> V): Map<K, List<V>> {\n  return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values
returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by
the given [keySelector] function applied to the element\n * and returns a map where each group key is associated
with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys
produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeyAndValues\n */\npublic inline fun <K, V>
DoubleArray.groupBy(keySelector:
(Double) -> K, valueTransform: (Double) -> V): Map<K, List<V>> {\n  return groupByTo(LinkedHashMap<K,
MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform]
function applied to each element of the original array\n * by the key returned by the given [keySelector] function
applied to the element\n * and returns a map where each group key is associated with a list of corresponding
values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n
*\n * @sample samples.collections.Collections.Transformations.groupByKeyAndValues\n */\npublic inline fun
<K, V> BooleanArray.groupBy(keySelector: (Boolean) -> K, valueTransform: (Boolean) -> V): Map<K, List<V>>
{\n  return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n *
Groups values returned by the [valueTransform] function applied to each element of the original array\n
* by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each
group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration
order of the keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeyAndValues\n */\npublic inline fun <K, V>
CharArray.groupBy(keySelector: (Char) -> K, valueTransform: (Char) -> V): Map<K, List<V>> {\n  return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups elements
of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to
the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The
[destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline
fun <T, K, M : MutableMap<in K, MutableList<T>>>>
Array<out T>.groupByTo(destination: M, keySelector: (T) -> K): M {\n  for (element in this) {\n    val key =
keySelector(element)\n    val list = destination.getOrPut(key) { ArrayList<T>() }\n    list.add(element)\n  }\n  return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector]
function\n * applied to each element and puts to the [destination] map each group key associated with a list of
corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample
samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M : MutableMap<in K,
MutableList<Byte>>>> ByteArray.groupByTo(destination: M, keySelector: (Byte) -> K): M {\n  for (element in
this) {\n    val key = keySelector(element)\n    val list = destination.getOrPut(key) { ArrayList<Byte>() }\n    list.add(element)\n  }\n  return destination\n}\n\n/**\n * Groups elements of the original array by the
key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each
group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n *
@sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M : MutableMap<in
K, MutableList<Short>>>> ShortArray.groupByTo(destination: M, keySelector: (Short) -> K): M {\n  for (element
in this) {\n    val key = keySelector(element)\n    val list = destination.getOrPut(key) { ArrayList<Short>() }\n    list.add(element)\n  }\n  return destination\n}\n\n/**\n * Groups elements of the original array by the key
returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each
group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n *
@sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K,
M : MutableMap<in K, MutableList<Int>>>> IntArray.groupByTo(destination: M, keySelector: (Int) -> K): M {\n
for (element in this) {\n    val key = keySelector(element)\n    val list = destination.getOrPut(key) {
ArrayList<Int>() }\n    list.add(element)\n  }\n  return destination\n}\n\n/**\n * Groups elements of the original

```





returned by the [valueTransform] function applied to each element of the original array\n \* by the key returned by the given [keySelector] function applied to the element\n \* and puts to the [destination] map each group key associated with a list of corresponding values.\n \* \n \* @return The [destination] map.\n \* \n \* @sample

```

samples.collections.Collections.Transformations.groupByKeyAndValues\n */\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> ShortArray.groupByTo(destination: M, keySelector: (Short) -> K, valueTransform: (Short) -> V): M {\n    for (element in this) {\n        val key = keySelector(element)\n        val list = destination.getOrPut(key) { ArrayList<V>() }\n        list.add(valueTransform(element))\n    }\n    return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample

```

samples.collections.Collections.Transformations.groupByKeyAndValues\n \*/\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> IntArray.groupByTo(destination: M, keySelector: (Int) -> K, valueTransform: (Int) -> V): M {\n for (element in this) {\n val key = keySelector(element)\n val list = destination.getOrPut(key) { ArrayList<V>() }\n list.add(valueTransform(element))\n }\n return destination\n}\n\n/\*\*\n \* Groups values returned by the [valueTransform] function applied to each element of the original array\n \* by the key returned by the given [keySelector] function applied to the element\n \* and puts to the [destination] map each group key associated with a list of corresponding values.\n \* \n \* @return The [destination] map.\n \* \n \* @sample

```

samples.collections.Collections.Transformations.groupByKeyAndValues\n */\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> LongArray.groupByTo(destination: M, keySelector: (Long) -> K, valueTransform: (Long) -> V): M {\n    for (element in this) {\n        val key = keySelector(element)\n        val list = destination.getOrPut(key) { ArrayList<V>() }\n        list.add(valueTransform(element))\n    }\n    return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample

```

samples.collections.Collections.Transformations.groupByKeyAndValues\n \*/\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> FloatArray.groupByTo(destination: M, keySelector: (Float) -> K, valueTransform: (Float) -> V): M {\n for (element in this) {\n val key = keySelector(element)\n val list = destination.getOrPut(key) { ArrayList<V>() }\n list.add(valueTransform(element))\n }\n return destination\n}\n\n/\*\*\n \* Groups values returned by the [valueTransform] function applied to each element of the original array\n \* by the key returned by the given [keySelector] function applied to the element\n \* and puts to the [destination] map each group key associated with a list of corresponding values.\n \* \n \* @return The [destination] map.\n \* \n \* @sample

samples.collections.Collections.Transformations.groupByKeyAndValues\n \*/\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> DoubleArray.groupByTo(destination: M, keySelector: (Double) -> K, valueTransform: (Double) -> V): M {\n for (element in this) {\n val key = keySelector(element)\n val list = destination.getOrPut(key) { ArrayList<V>() }\n list.add(valueTransform(element))\n }\n return destination\n}\n\n/\*\*\n \* Groups values returned by the [valueTransform] function applied to each element of the original array\n \* by the key returned by the given [keySelector] function applied to the element\n \* and puts to the [destination] map each group key associated with a list of corresponding values.\n \* \n \* @return The [destination] map.\n \* \n \* @sample

samples.collections.Collections.Transformations.groupByKeyAndValues\n \*/\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> BooleanArray.groupByTo(destination: M, keySelector: (Boolean) -> K, valueTransform: (Boolean) -> V): M {\n for (element in this) {\n val key = keySelector(element)\n val list = destination.getOrPut(key) { ArrayList<V>() }\n list.add(valueTransform(element))\n }\n return destination\n}\n\n/\*\*\n \* Groups values returned by the [valueTransform] function applied to each element of the original array\n \* by the key returned by the given [keySelector] function applied to the element\n \* and puts to the

[destination] map each group key associated with a list of corresponding values.\n \* \n \* @return The [destination] map.\n \* \n \* @sample samples.collections.Collections.Transformations.groupByKeyAndValues\n \* \n public inline fun <K, V, M : MutableMap<in K, MutableList<V>>> CharArray.groupByTo(destination: M, keySelector: (Char) -> K, valueTransform: (Char) -> V): M {\n for (element in this) {\n val key = keySelector(element)\n val list = destination.getOrPut(key) { ArrayList<V>() }\n list.add(valueTransform(element))\n }\n return destination}\n}\n\n/\*\*\n \* Creates a [Grouping] source from an array to be used later with one of group-and-fold operations\n \* using the specified [keySelector] function to extract a key from each element.\n \* \n \* @sample samples.collections.Grouping.groupingByEachCount\n \* \n\n@SinceKotlin("1.1")\n public inline fun <T, K> Array<out T>.groupingBy(crossinline keySelector: (T) -> K): Grouping<T, K> {\n return object : Grouping<T, K> {\n override fun sourceIterator(): Iterator<T> = this@groupingBy.iterator()\n override fun keyOf(element: T): K = keySelector(element)\n }\n}\n\n/\*\*\n \* Returns a list containing the results of applying the given [transform] function\n \* to each element in the original array.\n \* \n \* @sample samples.collections.Collections.Transformations.map\n \* \n public inline fun <T, R> Array<out T>.map(transform: (T) -> R): List<R> {\n return mapTo(ArrayList<R>(size), transform)\n}\n}\n\n/\*\*\n \* Returns a list containing the results of applying the given [transform] function\n \* to each element in the original array.\n \* \n \* @sample samples.collections.Collections.Transformations.map\n \* \n public inline fun <R> ByteArray.map(transform: (Byte) -> R): List<R> {\n return mapTo(ArrayList<R>(size), transform)\n}\n}\n\n/\*\*\n \* Returns a list containing the results of applying the given [transform] function\n \* to each element in the original array.\n \* \n \* @sample samples.collections.Collections.Transformations.map\n \* \n public inline fun <R> ShortArray.map(transform: (Short) -> R): List<R> {\n return mapTo(ArrayList<R>(size), transform)\n}\n}\n\n/\*\*\n \* Returns a list containing the results of applying the given [transform] function\n \* to each element in the original array.\n \* \n \* @sample samples.collections.Collections.Transformations.map\n \* \n public inline fun <R> IntArray.map(transform: (Int) -> R): List<R> {\n return mapTo(ArrayList<R>(size), transform)\n}\n}\n\n/\*\*\n \* Returns a list containing the results of applying the given [transform] function\n \* to each element in the original array.\n \* \n \* @sample samples.collections.Collections.Transformations.map\n \* \n public inline fun <R> LongArray.map(transform: (Long) -> R): List<R> {\n return mapTo(ArrayList<R>(size), transform)\n}\n}\n\n/\*\*\n \* Returns a list containing the results of applying the given [transform] function\n \* to each element in the original array.\n \* \n \* @sample samples.collections.Collections.Transformations.map\n \* \n public inline fun <R> FloatArray.map(transform: (Float) -> R): List<R> {\n return mapTo(ArrayList<R>(size), transform)\n}\n}\n\n/\*\*\n \* Returns a list containing the results of applying the given [transform] function\n \* to each element in the original array.\n \* \n \* @sample samples.collections.Collections.Transformations.map\n \* \n public inline fun <R> DoubleArray.map(transform: (Double) -> R): List<R> {\n return mapTo(ArrayList<R>(size), transform)\n}\n}\n\n/\*\*\n \* Returns a list containing the results of applying the given [transform] function\n \* to each element in the original array.\n \* \n \* @sample samples.collections.Collections.Transformations.map\n \* \n public inline fun <R> BooleanArray.map(transform: (Boolean) -> R): List<R> {\n return mapTo(ArrayList<R>(size), transform)\n}\n}\n\n/\*\*\n \* Returns a list containing the results of applying the given [transform] function\n \* to each element and its index in the original array.\n \* \n \* @param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n \* \n public inline fun <T, R> Array<out T>.mapIndexed(transform: (index: Int, T) -> R): List<R> {\n return mapIndexedTo(ArrayList<R>(size), transform)\n}\n}\n\n/\*\*\n \* Returns a list containing the results of applying the given [transform] function\n \* to each element and its index in the original array.\n \* \n \* @param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n \* \n public inline fun <R> ByteArray.mapIndexed(transform: (index: Int, Byte) -> R): List<R> {\n return

mapIndexedTo(ArrayList<R>(size), transform)\n\n/\*\*\n \* Returns a list containing the results of applying the given [transform] function\n \* to each element and its index in the original array.\n \* @param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n \*/\npublic inline fun <R> ShortArray.mapIndexed(transform: (index: Int, Short) -> R): List<R> {\n return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/\*\*\n \* Returns a list containing the results of applying the given [transform] function\n \* to each element and its index in the original array.\n \* @param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n \*/\npublic inline fun <R> IntArray.mapIndexed(transform: (index: Int, Int) -> R): List<R> {\n return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/\*\*\n \* Returns a list containing the results of applying the given [transform] function\n \* to each element and its index in the original array.\n \* @param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n \*/\npublic inline fun <R> LongArray.mapIndexed(transform: (index: Int, Long) -> R): List<R> {\n return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/\*\*\n \* Returns a list containing the results of applying the given [transform] function\n \* to each element and its index in the original array.\n \* @param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n \*/\npublic inline fun <R> FloatArray.mapIndexed(transform: (index: Int, Float) -> R): List<R> {\n return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/\*\*\n \* Returns a list containing the results of applying the given [transform] function\n \* to each element and its index in the original array.\n \* @param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n \*/\npublic inline fun <R> DoubleArray.mapIndexed(transform: (index: Int, Double) -> R): List<R> {\n return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/\*\*\n \* Returns a list containing the results of applying the given [transform] function\n \* to each element and its index in the original array.\n \* @param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n \*/\npublic inline fun <R> BooleanArray.mapIndexed(transform: (index: Int, Boolean) -> R): List<R> {\n return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/\*\*\n \* Returns a list containing the results of applying the given [transform] function\n \* to each element and its index in the original array.\n \* @param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n \*/\npublic inline fun <R> CharArray.mapIndexed(transform: (index: Int, Char) -> R): List<R> {\n return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/\*\*\n \* Returns a list containing only the non-null results of applying the given [transform] function\n \* to each element and its index in the original array.\n \* @param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n \*/\npublic inline fun <T, R : Any> Array<out T>.mapIndexedNotNull(transform: (index: Int, T) -> R?): List<R> {\n return mapIndexedNotNullTo(ArrayList<R>(), transform)\n}\n\n/\*\*\n \* Applies the given [transform] function to each element and its index in the original array\n \* and appends only the non-null results to the given [destination].\n \* @param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n \*/\npublic inline fun <T, R : Any, C : MutableCollection<in R>> Array<out T>.mapIndexedNotNullTo(destination: C, transform: (index: Int, T) -> R?): C {\n forEachIndexed { index, element -> transform(index, element)?.let { destination.add(it) } }\n return destination\n}\n\n/\*\*\n \* Applies the given [transform] function to each element and its index in the original array\n \* and appends the results to the given [destination].\n \* @param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n \*/\npublic inline fun <T, R, C : MutableCollection<in R>> Array<out T>.mapIndexedTo(destination: C, transform: (index: Int, T) -> R): C {\n var index = 0\n for (item in this)\n destination.add(transform(index++, item))\n return destination\n}\n\n/\*\*\n \* Applies the given [transform] function to each element and its index in the original array\n \* and appends the results to the given [destination].\n \* @param [transform] function that takes the index of

an element and the element itself  
`* and returns the result of the transform applied to the element.`  
`public inline fun <R, C : MutableCollection<in R>> ByteArray.mapIndexedTo(destination: C, transform: (index: Int, Byte) -> R): C {`  
 `var index = 0`  
 `for (item in this)`  
 `destination.add(transform(index++, item))`  
 `return destination`  
`}`  
`**`  
`* Applies the given [transform] function to each element and its index in the original array`  
`* and appends the results to the given [destination].`  
`* @param [transform] function that takes the index of an element and the element itself`  
`* and returns the result of the transform applied to the element.`  
`public inline fun <R, C : MutableCollection<in R>> ShortArray.mapIndexedTo(destination: C, transform: (index: Int, Short) -> R): C {`  
 `var index = 0`  
 `for (item in this)`  
 `destination.add(transform(index++, item))`  
 `return destination`  
`}`  
`**`  
`* Applies the given [transform] function to each element and its index in the original array`  
`* and appends the results to the given [destination].`  
`* @param [transform] function that takes the index of an element and the element itself`  
`* and returns the result of the transform applied to the element.`  
`public inline fun <R, C : MutableCollection<in R>> IntArray.mapIndexedTo(destination: C, transform: (index: Int, Int) -> R): C {`  
 `var index = 0`  
 `for (item in this)`  
 `destination.add(transform(index++, item))`  
 `return destination`  
`}`  
`**`  
`* Applies the given [transform] function to each element and its index in the original array`  
`* and appends the results to the given [destination].`  
`* @param [transform] function that takes the index of an element and the element itself`  
`* and returns the result of the transform applied to the element.`  
`public inline fun <R, C : MutableCollection<in R>> LongArray.mapIndexedTo(destination: C, transform: (index: Int, Long) -> R): C {`  
 `var index = 0`  
 `for (item in this)`  
 `destination.add(transform(index++, item))`  
 `return destination`  
`}`  
`**`  
`* Applies the given [transform] function to each element and its index in the original array`  
`* and appends the results to the given [destination].`  
`* @param [transform] function that takes the index of an element and the element itself`  
`* and returns the result of the transform applied to the element.`  
`public inline fun <R, C : MutableCollection<in R>> FloatArray.mapIndexedTo(destination: C, transform: (index: Int, Float) -> R): C {`  
 `var index = 0`  
 `for (item in this)`  
 `destination.add(transform(index++, item))`  
 `return destination`  
`}`  
`**`  
`* Applies the given [transform] function to each element and its index in the original array`  
`* and appends the results to the given [destination].`  
`* @param [transform] function that takes the index of an element and the element itself`  
`* and returns the result of the transform applied to the element.`  
`public inline fun <R, C : MutableCollection<in R>> DoubleArray.mapIndexedTo(destination: C, transform: (index: Int, Double) -> R): C {`  
 `var index = 0`  
 `for (item in this)`  
 `destination.add(transform(index++, item))`  
 `return destination`  
`}`  
`**`  
`* Applies the given [transform] function to each element and its index in the original array`  
`* and appends the results to the given [destination].`  
`* @param [transform] function that takes the index of an element and the element itself`  
`* and returns the result of the transform applied to the element.`  
`public inline fun <R, C : MutableCollection<in R>> BooleanArray.mapIndexedTo(destination: C, transform: (index: Int, Boolean) -> R): C {`  
 `var index = 0`  
 `for (item in this)`  
 `destination.add(transform(index++, item))`  
 `return destination`  
`}`  
`**`  
`* Applies the given [transform] function to each element and its index in the original array`  
`* and appends the results to the given [destination].`  
`* @param [transform] function that takes the index of an element and the element itself`  
`* and returns the result of the transform applied to the element.`  
`public inline fun <R, C : MutableCollection<in R>> CharArray.mapIndexedTo(destination: C, transform: (index: Int, Char) -> R): C {`  
 `var index = 0`  
 `for (item in this)`  
 `destination.add(transform(index++, item))`  
 `return destination`  
`}`  
`**`  
`* Returns a list containing only the non-null results of applying the given [transform] function`  
`* to each element in the original array.`  
`* @sample samples.collections.Collections.Transformations.mapNotNull`  
`public inline fun <T, R : Any> Array<out T>.mapNotNull(transform: (T) -> R?): List<R> {`  
 `return mapNotNullTo(ArrayList<R>(), transform)`  
`}`  
`**`  
`* Applies the given [transform] function to each element in the original array`  
`* and appends only the non-null results to the given [destination].`  
`public inline fun <T, R : Any, C : MutableCollection<in R>> Array<out T>.mapNotNullTo(destination: C, transform: (T) -> R?): C {`  
 `for (element in this)`  
 `if (transform(element) != null) {`  
 `destination.add(transform(element))`  
 `}`  
 `return destination`  
`}`  
`**`  
`* Applies the given [transform] function to each element of the original array`  
`* and appends the results to the given`

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[destination].\n *\npublic inline fun <T, R, C : MutableCollection<in R>> Array<out T>.mapTo(destination: C,
transform:
(T) -> R): C {\n  for (item in this)\n    destination.add(transform(item))\n  return destination\n}\n\n/**\n *
Applies the given [transform] function to each element of the original array\n * and appends the results to the given
[destination].\n *\npublic inline fun <R, C : MutableCollection<in R>> ByteArray.mapTo(destination: C,
transform: (Byte) -> R): C {\n  for (item in this)\n    destination.add(transform(item))\n  return
destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and
appends the results to the given [destination].\n *\npublic inline fun <R, C : MutableCollection<in R>>
ShortArray.mapTo(destination: C, transform: (Short) -> R): C {\n  for (item in this)\n
destination.add(transform(item))\n  return destination\n}\n\n/**\n * Applies the given [transform] function to each
element of the original array\n * and appends the results to the given [destination].\n *\npublic inline fun <R, C :
MutableCollection<in
R>> IntArray.mapTo(destination: C, transform: (Int) -> R): C {\n  for (item in this)\n
destination.add(transform(item))\n  return destination\n}\n\n/**\n * Applies the given [transform] function to each
element of the original array\n * and appends the results to the given [destination].\n *\npublic inline fun <R, C :
MutableCollection<in R>> LongArray.mapTo(destination: C, transform: (Long) -> R): C {\n  for (item in this)\n
destination.add(transform(item))\n  return destination\n}\n\n/**\n * Applies the given [transform] function to
each element of the original array\n * and appends the results to the given [destination].\n *\npublic inline fun <R,
C : MutableCollection<in R>> FloatArray.mapTo(destination: C, transform: (Float) -> R): C {\n  for (item in
this)\n  destination.add(transform(item))\n  return destination\n}\n\n/**\n * Applies the given [transform]
function to each element of the original array\n * and appends the results
to the given [destination].\n *\npublic inline fun <R, C : MutableCollection<in R>>
DoubleArray.mapTo(destination: C, transform: (Double) -> R): C {\n  for (item in this)\n
destination.add(transform(item))\n  return destination\n}\n\n/**\n * Applies the given [transform] function to each
element of the original array\n * and appends the results to the given [destination].\n *\npublic inline fun <R, C :
MutableCollection<in R>> BooleanArray.mapTo(destination: C, transform: (Boolean) -> R): C {\n  for (item in
this)\n  destination.add(transform(item))\n  return destination\n}\n\n/**\n * Applies the given [transform]
function to each element of the original array\n * and appends the results to the given [destination].\n *\npublic
inline fun <R, C : MutableCollection<in R>> CharArray.mapTo(destination: C, transform: (Char) -> R): C {\n  for
(item in this)\n  destination.add(transform(item))\n  return destination\n}\n\n/**\n * Returns a lazy [Iterable]
that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and
the element itself.\n *\npublic fun <T> Array<out T>.withIndex(): Iterable<IndexedValue<T>> {\n  return
IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n
* into an [IndexedValue] containing the index of that element and the element itself.\n *\npublic fun
ByteArray.withIndex(): Iterable<IndexedValue<Byte>> {\n  return IndexingIterable { iterator() }\n}\n\n/**\n *
Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the
index of that element and the element itself.\n *\npublic fun ShortArray.withIndex():
Iterable<IndexedValue<Short>> {\n  return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable]
that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the
element itself.\n\n *\npublic fun IntArray.withIndex(): Iterable<IndexedValue<Int>> {\n  return IndexingIterable { iterator()
}\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue]
containing the index of that element and the element itself.\n *\npublic fun LongArray.withIndex():
Iterable<IndexedValue<Long>> {\n  return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable]
that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the
element itself.\n *\npublic fun FloatArray.withIndex(): Iterable<IndexedValue<Float>> {\n  return
IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n
* into an [IndexedValue] containing the index of that element and the element itself.\n *\npublic fun

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DoubleArray.withIndex(): Iterable<IndexedValue<Double>> {\n  return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun BooleanArray.withIndex():\nIterable<IndexedValue<Boolean>> {\n  return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun CharArray.withIndex(): Iterable<IndexedValue<Char>> {\n  return\nIndexingIterable { iterator() }\n}\n\n/**\n * Returns a list containing only distinct elements from the given array.\n * \n * Among equal elements of the given array, only the first one will be present in the resulting list.\n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample\nsamples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun <T> Array<out\nT>.distinct(): List<T>\n\n{\n  return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only distinct elements from the\n * given array.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample\nsamples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun\nByteArray.distinct(): List<Byte> {\n  return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing\n * only distinct elements from the given array.\n * \n * The elements in the resulting list are in the same order as they\n * were in the source array.\n * \n * @sample\nsamples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun ShortArray.distinct():\nList<Short> {\n  return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only distinct elements\n * from the given array.\n * \n * The elements in the resulting list are in the same order as they were in the source\n * array.\n * \n * @sample\nsamples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun IntArray.distinct(): List<Int> {\n  return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list\n * containing only distinct elements from the given array.\n * \n * The elements in the resulting list are in the same\n * order as they were in the source array.\n * \n * @sample\nsamples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun LongArray.distinct():\nList<Long> {\n  return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only distinct elements\n * from the given array.\n * \n * The elements in the resulting list are in the same order as they were in the source\n * array.\n * \n * @sample\nsamples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun\nFloatArray.distinct(): List<Float> {\n  return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing\n * only distinct elements from the given array.\n * \n * The elements in the resulting\n * list are in the same order as they were in the source array.\n * \n * @sample\nsamples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun DoubleArray.distinct():\nList<Double> {\n  return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only distinct elements\n * from the given array.\n * \n * The elements in the resulting list are in the same order as they were in the source\n * array.\n * \n * @sample\nsamples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun\nBooleanArray.distinct(): List<Boolean> {\n  return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list\n * containing only distinct elements from the given array.\n * \n * The elements in the resulting list are in the same\n * order as they were in the source array.\n * \n * @sample\nsamples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun CharArray.distinct():\nList<Char> {\n  return this.toMutableSet().toList()\n}\n\n/**\n * Returns\n * a list containing only elements from the given array\n * having distinct keys returned by the given [selector]\n * function.\n * \n * Among elements of the given array with equal keys, only the first one will be present in the\n * resulting list.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * \n * @sample\nsamples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <T, K>\nArray<out T>.distinctBy(selector: (T) -> K): List<T> {\n  val set = HashSet<K>()\n  val list = ArrayList<T>()\n  for (e in this) {\n    val key = selector(e)\n    if (set.add(key))\n      list.add(e)\n  }\n  return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys returned by the given\n * [selector] function.\n * \n * The elements in the resulting list are in the same order as they were in the source

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array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n
*/\npublic inline fun <K> ByteArray.distinctBy(selector: (Byte) -> K): List<Byte> {\n    val set = HashSet<K>()\n
val list = ArrayList<Byte>()\n    for (e in this) {\n        val key = selector(e)\n        if (set.add(key))\n
list.add(e)\n    }\n    return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having
distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same
order as they were in the source array.\n * \n * @sample
samples.collections.Collections.Transformations.distinctAndDistinctBy\n
*/\npublic inline fun <K> ShortArray.distinctBy(selector: (Short) -> K): List<Short> {\n    val set = HashSet<K>()\n    val list =
ArrayList<Short>()\n    for (e in this) {\n        val key = selector(e)\n        if (set.add(key))\n            list.add(e)\n    }\n
return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having
distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same
order as they were in the source array.\n * \n * @sample
samples.collections.Collections.Transformations.distinctAndDistinctBy\n
*/\npublic inline fun <K> IntArray.distinctBy(selector: (Int) -> K): List<Int> {\n    val set = HashSet<K>()\n    val list = ArrayList<Int>()\n
for (e in this) {\n        val key = selector(e)\n        if (set.add(key))\n            list.add(e)\n    }\n    return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys returned by the given
[selector] function.\n * \n * The elements in the resulting list are in the same order as they were in the source
array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n
*/\npublic inline
fun <K> LongArray.distinctBy(selector: (Long) -> K): List<Long> {\n    val set = HashSet<K>()\n    val list =
ArrayList<Long>()\n
    for (e in this) {\n        val key = selector(e)\n        if (set.add(key))\n            list.add(e)\n    }\n    return
list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys returned by
the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they were in the
source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n
*/\npublic
inline fun <K> FloatArray.distinctBy(selector: (Float) -> K): List<Float> {\n    val set = HashSet<K>()\n    val list =
ArrayList<Float>()\n    for (e in this) {\n        val key = selector(e)\n        if (set.add(key))\n            list.add(e)\n    }\n
return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys
returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they
were in the source array.\n * \n * @sample
samples.collections.Collections.Transformations.distinctAndDistinctBy\n
*/\npublic inline fun <K> DoubleArray.distinctBy(selector: (Double) -> K): List<Double> {\n    val set = HashSet<K>()\n    val list =
ArrayList<Double>()\n    for (e in this) {\n        val key = selector(e)\n        if (set.add(key))\n            list.add(e)\n
    }\n    return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys
returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they
were in the source array.\n * \n * @sample
samples.collections.Collections.Transformations.distinctAndDistinctBy\n
*/\npublic inline fun <K> BooleanArray.distinctBy(selector: (Boolean) -> K): List<Boolean> {\n    val set = HashSet<K>()\n    val list =
ArrayList<Boolean>()\n    for (e in this) {\n        val key = selector(e)\n        if (set.add(key))\n            list.add(e)\n
    }\n    return list\n}\n\n/**\n * Returns
a list containing only elements from the given array\n * having distinct keys returned by the given [selector]
function.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n *
@sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n
*/\npublic inline fun <K> CharArray.distinctBy(selector: (Char) -> K): List<Char> {\n    val set = HashSet<K>()\n    val list =
ArrayList<Char>()\n    for (e in this) {\n        val key = selector(e)\n        if (set.add(key))\n            list.add(e)\n    }\n
return list\n}\n\n/**\n * Returns a set containing all elements that are contained by both this array and the specified
collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set
containing all elements that are contained at least in one of these collections use [union].\n
*/\npublic infix fun <T> Array<out T>.intersect(other: Iterable<T>): Set<T> {\n    val set

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*/\npublic infix fun IntArray.subtract(other: Iterable<Int>): Set<Int> {\n    val set = this.toMutableSet()\n    set.removeAll(other)\n    return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\n\npublic infix fun LongArray.subtract(other: Iterable<Long>): Set<Long> {\n    val set = this.toMutableSet()\n    set.removeAll(other)\n    return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\n\npublic infix fun FloatArray.subtract(other: Iterable<Float>): Set<Float> {\n    val set = this.toMutableSet()\n    set.removeAll(other)\n    return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\n\npublic infix fun DoubleArray.subtract(other: Iterable<Double>): Set<Double> {\n    val set = this.toMutableSet()\n    set.removeAll(other)\n    return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\n\npublic infix fun BooleanArray.subtract(other: Iterable<Boolean>): Set<Boolean> {\n    val set = this.toMutableSet()\n    set.removeAll(other)\n    return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\n\npublic infix fun CharArray.subtract(other: Iterable<Char>): Set<Char> {\n    val set = this.toMutableSet()\n    set.removeAll(other)\n    return set\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\n\npublic fun <T> Array<out T>.toMutableSet(): MutableSet<T> {\n    return toCollection(LinkedHashSet<T>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\n\npublic fun ByteArray.toMutableSet(): MutableSet<Byte> {\n    return toCollection(LinkedHashSet<Byte>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\n\npublic fun ShortArray.toMutableSet(): MutableSet<Short> {\n    return toCollection(LinkedHashSet<Short>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\n\npublic fun IntArray.toMutableSet(): MutableSet<Int> {\n    return toCollection(LinkedHashSet<Int>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\n\npublic fun LongArray.toMutableSet(): MutableSet<Long> {\n    return toCollection(LinkedHashSet<Long>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\n\npublic fun FloatArray.toMutableSet(): MutableSet<Float> {\n    return toCollection(LinkedHashSet<Float>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\n\npublic fun DoubleArray.toMutableSet(): MutableSet<Double> {\n    return toCollection(LinkedHashSet<Double>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\n\npublic fun BooleanArray.toMutableSet(): MutableSet<Boolean> {\n    return toCollection(LinkedHashSet<Boolean>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\n\npublic fun CharArray.toMutableSet(): MutableSet<Char> {\n    return toCollection(LinkedHashSet<Char>(mapCapacity(size.coerceAtMost(128))))\n}\n\n/**\n * Returns a set containing

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all distinct elements from both collections.\n \* \n \* The returned set preserves the element iteration order of the original array.\n \* Those elements of the [other] collection that are unique are iterated in the end\n \* in the order of the [other] collection.\n \* \n \* To get a set containing all elements that are contained in both collections use [intersect].\n \*/\npublic infix fun <T> Array<out T>.union(other: Iterable<T>): Set<T> {\n val set = this.toMutableSet()\n set.addAll(other)\n return set}\n\n/\*\*\n \* Returns a set containing all distinct elements from both collections.\n \* \n \* The returned set preserves the element iteration order of the original array.\n \* Those elements of the [other] collection that are unique are iterated in the end\n \* in the order of the [other] collection.\n \* \n \* To get a set containing all elements that are contained in both collections use [intersect].\n \*/\npublic infix fun ByteArray.union(other: Iterable<Byte>): Set<Byte> {\n val set = this.toMutableSet()\n set.addAll(other)\n return set}\n\n/\*\*\n \* Returns a set containing all distinct elements from both collections.\n \* \n \* The returned set preserves the element iteration order of the original array.\n \* Those elements of the [other] collection that are unique are iterated in the end\n \* in the order of the [other] collection.\n \* \n \* To get a set containing all elements that are contained in both collections use [intersect].\n \*/\npublic infix fun ShortArray.union(other: Iterable<Short>): Set<Short> {\n val set = this.toMutableSet()\n set.addAll(other)\n return set}\n\n/\*\*\n \* Returns a set containing all distinct elements from both collections.\n \* \n \* The returned set preserves the element iteration order of the original array.\n \* Those elements of the [other] collection that are unique are iterated in the end\n \* in the order of the [other] collection.\n \* \n \* To get a set containing all elements that are contained in both collections use [intersect].\n \*/\npublic infix fun IntArray.union(other: Iterable<Int>): Set<Int> {\n val set = this.toMutableSet()\n set.addAll(other)\n return set}\n\n/\*\*\n \* Returns a set containing all distinct elements from both collections.\n \* \n \* The returned set preserves the element iteration order of the original array.\n \* Those elements of the [other] collection that are unique are iterated in the end\n \* in the order of the [other] collection.\n \* \n \* To get a set containing all elements that are contained in both collections use [intersect].\n \*/\npublic infix fun LongArray.union(other: Iterable<Long>): Set<Long> {\n val set = this.toMutableSet()\n set.addAll(other)\n return set}\n\n/\*\*\n \* Returns a set containing all distinct elements from both collections.\n \* \n \* The returned set preserves the element iteration order of the original array.\n \* Those elements of the [other] collection that are unique are iterated in the end\n \* in the order of the [other] collection.\n \* \n \* To get a set containing all elements that are contained in both collections use [intersect].\n \*/\npublic infix fun FloatArray.union(other: Iterable<Float>): Set<Float> {\n val set = this.toMutableSet()\n set.addAll(other)\n return set}\n\n/\*\*\n \* Returns a set containing all distinct elements from both collections.\n \* \n \* The returned set preserves the element iteration order of the original array.\n \* Those elements of the [other] collection that are unique are iterated in the end\n \* in the order of the [other] collection.\n \* \n \* To get a set containing all elements that are contained in both collections use [intersect].\n \*/\npublic infix fun DoubleArray.union(other: Iterable<Double>): Set<Double> {\n val set = this.toMutableSet()\n set.addAll(other)\n return set}\n\n/\*\*\n \* Returns a set containing all distinct elements from both collections.\n \* \n \* The returned set preserves the element iteration order of the original array.\n \* Those elements of the [other] collection that are unique are iterated in the end\n \* in the order of the [other] collection.\n \* \n \* To get a set containing all elements that are contained in both collections use [intersect].\n \*/\npublic infix fun BooleanArray.union(other: Iterable<Boolean>): Set<Boolean> {\n val set = this.toMutableSet()\n set.addAll(other)\n return set}\n\n/\*\*\n \* Returns a set containing all distinct elements from both collections.\n \* \n \* The returned set preserves the element iteration order of the original array.\n \* Those elements of the [other] collection that are unique are iterated in the end\n \* in the order of the [other] collection.\n \* \n \* To get a set containing all elements that are contained in both collections use [intersect].\n \*/\npublic infix fun CharArray.union(other: Iterable<Char>): Set<Char> {\n val set = this.toMutableSet()\n set.addAll(other)\n return set}\n\n/\*\*\n \* Returns `true` if all elements match the given [predicate].\n \* \n \* @sample samples.collections.Collections.Aggregates.all\n \*/\npublic inline fun <T> Array<out T>.all(predicate: (T) -> Boolean): Boolean {\n for (element in this) if (!predicate(element)) return false\n return true}\n\n/\*\*\n \* Returns `true` if all elements match the given

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[predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun
ByteArray.all(predicate: (Byte) -> Boolean): Boolean {\n for (element in this) if (!predicate(element)) return
false\n return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.all\n */\npublic inline fun ShortArray.all(predicate: (Short) -> Boolean):
Boolean {\n for (element in this) if (!predicate(element)) return false\n return true\n}\n\n/**\n
* Returns `true` if all elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.all\n */\npublic inline fun IntArray.all(predicate: (Int) -> Boolean):
Boolean {\n for (element in this) if (!predicate(element)) return false\n return true\n}\n\n/**\n * Returns `true` if
all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n
*/\npublic inline fun LongArray.all(predicate: (Long) -> Boolean): Boolean {\n for (element in this) if
(!predicate(element)) return false\n return true\n}\n\n/**\n * Returns `true` if all elements match the given
[predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun
FloatArray.all(predicate: (Float) -> Boolean): Boolean {\n for (element in this) if (!predicate(element)) return
false\n return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.all\n
*/\npublic inline fun DoubleArray.all(predicate: (Double) -> Boolean): Boolean {\n for (element in this) if
(!predicate(element)) return false\n return true\n}\n\n/**\n * Returns `true` if all elements match the given
[predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun
BooleanArray.all(predicate: (Boolean) -> Boolean): Boolean {\n for (element in this) if (!predicate(element))
return false\n return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.all\n */\npublic inline fun CharArray.all(predicate: (Char) -> Boolean):
Boolean {\n for (element in this) if (!predicate(element)) return false\n return true\n}\n\n/**\n * Returns `true` if
array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun
<T> Array<out T>.any(): Boolean {\n return !isEmpty()\n}\n\n/**\n
* Returns `true` if array has at least one element.\n * \n * @sample
samples.collections.Collections.Aggregates.any\n */\npublic fun ByteArray.any(): Boolean {\n return
!isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample
samples.collections.Collections.Aggregates.any\n */\npublic fun ShortArray.any(): Boolean {\n return
!isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample
samples.collections.Collections.Aggregates.any\n */\npublic fun IntArray.any(): Boolean {\n return
!isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample
samples.collections.Collections.Aggregates.any\n */\npublic fun LongArray.any(): Boolean {\n return
!isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample
samples.collections.Collections.Aggregates.any\n */\npublic fun FloatArray.any(): Boolean {\n return
!isEmpty()\n}\n\n/**\n * Returns
`true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n
*/\npublic fun DoubleArray.any(): Boolean {\n return !isEmpty()\n}\n\n/**\n * Returns `true` if array has at least
one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun
BooleanArray.any(): Boolean {\n return !isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n
* \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun CharArray.any(): Boolean {\n
return !isEmpty()\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n *
@sample samples.collections.Collections.Aggregates.any\n */\npublic inline fun <T> Array<out
T>.any(predicate: (T) -> Boolean): Boolean {\n for (element in this) if (predicate(element)) return true\n return
false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.any\n */\npublic inline fun
ByteArray.any(predicate: (Byte) -> Boolean): Boolean {\n for (element in this) if
(predicate(element)) return true\n return false\n}\n\n/**\n * Returns `true` if at least one element matches the
given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic

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inline fun ShortArray.any(predicate: (Short) -> Boolean): Boolean {\n  for (element in this) if (predicate(element))
return true\n  return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n *
@sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun
IntArray.any(predicate: (Int) -> Boolean): Boolean {\n  for (element in this) if (predicate(element)) return true\n
return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n *
@sample samples.collections.Collections.Aggregates.anyWithPredicate\n
*/\npublic inline fun LongArray.any(predicate: (Long) -> Boolean): Boolean {\n  for (element in this) if
(predicate(element)) return true\n  return false\n}\n\n/**\n * Returns `true` if at least one element matches the
given [predicate].\n * \n *
@sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic
inline fun FloatArray.any(predicate: (Float) -> Boolean): Boolean {\n  for (element in this) if (predicate(element))
return true\n  return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n *
@sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun
DoubleArray.any(predicate: (Double) -> Boolean): Boolean {\n  for (element in this) if (predicate(element)) return
true\n  return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n *
@sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic
inline fun BooleanArray.any(predicate: (Boolean) -> Boolean): Boolean {\n  for (element in this) if
(predicate(element)) return true\n  return false\n}\n\n/**\n * Returns `true` if at least one element matches the
given [predicate].\n * \n *
@sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic
inline fun CharArray.any(predicate: (Char) -> Boolean): Boolean {\n  for (element in this) if (predicate(element))
return true\n  return false\n}\n\n/**\n * Returns the number of elements in this array.\n
*/\n\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.count(): Int {\n  return size\n}\n\n/**\n *
Returns the number of elements in this array.\n
*/\n\n@kotlin.internal.InlineOnly\npublic inline fun
ByteArray.count(): Int {\n  return size\n}\n\n/**\n * Returns the number of elements in this array.\n
*/\n\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.count(): Int {\n  return size\n}\n\n/**\n * Returns the
number of elements in this
array.\n
*/\n\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.count(): Int {\n  return size\n}\n\n/**\n *
Returns the number of elements in this array.\n
*/\n\n@kotlin.internal.InlineOnly\npublic inline fun
LongArray.count(): Int {\n  return size\n}\n\n/**\n * Returns the number of elements in this array.\n
*/\n\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.count(): Int {\n  return size\n}\n\n/**\n * Returns the
number of elements in this array.\n
*/\n\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.count(): Int {\n  return size\n}\n\n/**\n * Returns the
number of elements in this array.\n
*/\n\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.count(): Int {\n  return size\n}\n\n/**\n * Returns the
number of elements in this array.\n
*/\n\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.count(): Int {\n  return size\n}\n\n/**\n * Returns the
number of elements matching the given [predicate].\n
*/\n\npublic inline fun <T> Array<out
T>.count(predicate: (T) -> Boolean): Int {\n  var count = 0\n  for (element in this) if (predicate(element))
++count\n  return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n
*/\n\npublic inline fun ByteArray.count(predicate: (Byte) -> Boolean): Int {\n  var count = 0\n  for (element in this) if
(predicate(element)) ++count\n  return count\n}\n\n/**\n * Returns the number of elements matching the given
[predicate].\n
*/\n\npublic inline fun ShortArray.count(predicate: (Short) -> Boolean): Int {\n  var count = 0\n  for
(element in this) if (predicate(element)) ++count\n  return count\n}\n\n/**\n * Returns the number of elements
matching the given [predicate].\n
*/\n\npublic inline fun IntArray.count(predicate: (Int) -> Boolean): Int {\n  var
count = 0\n  for (element in this) if (predicate(element)) ++count\n  return count\n}\n\n/**\n * Returns the
number of elements matching the given [predicate].\n
*/\n\npublic inline fun LongArray.count(predicate:
(Long) -> Boolean): Int {\n  var count = 0\n  for (element in this) if (predicate(element)) ++count\n  return
count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n
*/\n\npublic inline fun FloatArray.count(predicate: (Float) -> Boolean): Int {\n  var count = 0\n  for (element in this) if
(predicate(element)) ++count\n  return count\n}\n\n/**\n * Returns the number of elements matching the given
[predicate].\n
*/\n\npublic inline fun DoubleArray.count(predicate: (Double) -> Boolean): Int {\n  var count = 0\n

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for (element in this) if (predicate(element)) ++count\n    return count\n}\n\n/**\n * Returns the number of elements
matching the given [predicate].\n */\npublic inline fun BooleanArray.count(predicate: (Boolean) -> Boolean): Int
{\n    var count = 0\n    for (element in this) if (predicate(element)) ++count\n    return count\n}\n\n/**\n * Returns
the number of elements matching the given [predicate].\n */\npublic inline fun
CharArray.count(predicate: (Char) -> Boolean): Int {\n    var count = 0\n    for (element in this) if
(predicate(element)) ++count\n    return count\n}\n\n/**\n * Accumulates value starting with [initial] value and
applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the
specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator
value and an element, and calculates the next accumulator value.\n */\npublic inline fun <T, R> Array<out
T>.fold(initial: R, operation: (acc: R, T) -> R): R {\n    var accumulator = initial\n    for (element in this)
accumulator = operation(accumulator, element)\n    return accumulator\n}\n\n/**\n * Accumulates value starting
with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n *
\n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that
takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun
<R> ByteArray.fold(initial: R, operation: (acc: R, Byte) -> R): R {\n    var accumulator = initial\n    for (element in
this) accumulator = operation(accumulator, element)\n    return accumulator\n}\n\n/**\n * Accumulates value
starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each
element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that
takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun
<R> ShortArray.fold(initial: R, operation: (acc: R, Short) -> R): R {\n    var accumulator = initial\n    for (element in
this) accumulator = operation(accumulator, element)\n    return accumulator\n}\n\n/**\n * Accumulates value
starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each
element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that
takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun
<R> IntArray.fold(initial: R, operation: (acc: R, Int) -> R): R {\n    var accumulator = initial\n    for (element in this)
accumulator = operation(accumulator, element)\n    return
accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to
right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is
empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the
next accumulator value.\n */\npublic inline fun <R> LongArray.fold(initial: R, operation: (acc: R, Long) -> R): R
{\n    var accumulator = initial\n    for (element in this) accumulator = operation(accumulator,
element)\n    return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying
[operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified
[initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and
an element, and calculates the next accumulator value.\n */\npublic inline fun <R> FloatArray.fold(initial: R,
operation: (acc: R, Float) -> R): R {\n    var accumulator = initial\n    for (element in this) accumulator =
operation(accumulator, element)\n    return accumulator\n}\n\n/**\n * Accumulates value starting with [initial]
value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns
the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current
accumulator value and an element, and calculates the next accumulator value.\n */\npublic
inline fun <R> DoubleArray.fold(initial: R, operation: (acc: R, Double) -> R): R {\n    var accumulator = initial\n
for (element in this) accumulator = operation(accumulator, element)\n    return accumulator\n}\n\n/**\n *
Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator
value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param
[operation] function that takes current accumulator value and an element, and calculates the next accumulator
value.\n */\npublic inline fun <R> BooleanArray.fold(initial: R, operation: (acc: R, Boolean) -> R): R {\n    var
accumulator = initial\n    for (element in this) accumulator = operation(accumulator, element)\n    return
accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to

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right\n \* to current accumulator value and each element.\n \* \n \* Returns the specified [initial] value if the array is empty.\n \* \n \* @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n \*/\npublic inline fun <R> CharArray.fold(initial: R, operation: (acc: R, Char) -> R): R {\n var accumulator = initial\n for (element in this) accumulator = operation(accumulator, element)\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from left to right\n \* to current accumulator value and each element with its index in the original array.\n \* \n \* Returns the specified [initial] value if the array is empty.\n \* \n \* @param [operation] function that takes the index of an element, current accumulator value\n \* and the element itself, and calculates the next accumulator value.\n \*/\npublic inline fun <T, R> Array<out T>.foldIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): R {\n var index = 0\n var accumulator = initial\n for (element in this) accumulator = operation(index++, accumulator, element)\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from left to right\n \* to current accumulator value and each element with its index in the original array.\n \* \n \* Returns the specified [initial] value if the array is empty.\n \* \n \* @param [operation] function that takes the index of an element, current accumulator value\n \* and the element itself, and calculates the next accumulator value.\n \*/\npublic inline fun <R> ByteArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Byte) -> R): R {\n var index = 0\n var accumulator = initial\n for (element in this) accumulator = operation(index++, accumulator, element)\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from left to right\n \* to current accumulator value and each element with its index in the original array.\n \* \n \* Returns the specified [initial] value if the array is empty.\n \* \n \* @param [operation] function that takes the index of an element, current accumulator value\n \* and the element itself, and calculates the next accumulator value.\n \*/\npublic inline fun <R> ShortArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Short) -> R): R {\n var index = 0\n var accumulator = initial\n for (element in this) accumulator = operation(index++, accumulator, element)\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from left to right\n \* to current accumulator value and each element with its index in the original array.\n \* \n \* Returns the specified [initial] value if the array is empty.\n \* \n \* @param [operation] function that takes the index of an element, current accumulator value\n \* and the element itself, and calculates the next accumulator value.\n \*/\npublic inline fun <R> IntArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Int) -> R): R {\n var index = 0\n var accumulator = initial\n for (element in this) accumulator = operation(index++, accumulator, element)\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from left to right\n \* to current accumulator value and each element with its index in the original array.\n \* \n \* Returns the specified [initial] value if the array is empty.\n \* \n \* @param [operation] function that takes the index of an element, current accumulator value\n \* and the element itself, and calculates the next accumulator value.\n \*/\npublic inline fun <R> LongArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Long) -> R): R {\n var index = 0\n var accumulator = initial\n for (element in this) accumulator = operation(index++, accumulator, element)\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from left to right\n \* to current accumulator value and each element with its index in the original array.\n \* \n \* Returns the specified [initial] value if the array is empty.\n \* \n \* @param [operation] function that takes the index of an element, current accumulator value\n \* and the element itself, and calculates the next accumulator value.\n \*/\npublic inline fun <R> FloatArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Float) -> R): R {\n var index = 0\n var accumulator = initial\n for (element in this) accumulator = operation(index++, accumulator, element)\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from left to right\n \* to current accumulator value and each element with its index in the original array.\n \* \n \* Returns the specified [initial] value if the array is empty.\n \* \n \* @param [operation] function that takes the index of an element, current accumulator value\n \* and the element itself, and calculates the next accumulator value.\n \*/\npublic inline fun <R> DoubleArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Double) -> R): R {\n var index = 0\n var accumulator = initial\n for (element in this) accumulator =

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operation(index++, accumulator, element)\n  return accumulator\n}\n\n/**\n * Accumulates value starting with
[initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its
index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param
[operation] function that takes the index of an element, current accumulator value\n * and the element itself, and
calculates the next accumulator value.\n */\npublic inline fun <R> BooleanArray.foldIndexed(initial: R, operation:
(index: Int, acc: R, Boolean) -> R): R {\n  var index = 0\n  var accumulator = initial\n  for (element in this)\n    accumulator = operation(index++, accumulator, element)\n  return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current
accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value
if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator
value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <R>
CharArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Char) -> R): R {\n  var index = 0\n  var
accumulator = initial\n  for (element in this) accumulator = operation(index++, accumulator, element)\n  return
accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to
left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is
empty.\n * \n * @param [operation] function that takes an element and
current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <T, R> Array<out
T>.foldRight(initial: R, operation: (T, acc: R) -> R): R {\n  var index = lastIndex\n  var accumulator = initial\n
while (index >= 0) {\n    accumulator = operation(get(index--), accumulator)\n  }\n  return
accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to
left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is
empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the
next accumulator value.\n */\npublic inline fun <R> ByteArray.foldRight(initial: R, operation: (Byte, acc: R) -> R):
R {\n  var index = lastIndex\n  var accumulator = initial\n  while (index >= 0) {\n    accumulator =
operation(get(index--), accumulator)\n  }\n  return accumulator\n}\n\n/**\n * Accumulates
value starting with [initial] value and applying [operation] from right to left\n * to each element and current
accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation]
function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\n
*\npublic inline fun <R> ShortArray.foldRight(initial: R, operation: (Short, acc: R) -> R): R {\n  var index =
lastIndex\n  var accumulator = initial\n  while (index >= 0) {\n    accumulator = operation(get(index--),
accumulator)\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying
[operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified
[initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current
accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R>
IntArray.foldRight(initial: R, operation: (Int, acc: R) -> R): R {\n  var index = lastIndex\n  var accumulator =
initial\n  while (index >= 0) {\n    accumulator = operation(get(index--), accumulator)\n  }\n  return
accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to
left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is
empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the
next accumulator value.\n */\npublic inline fun <R> LongArray.foldRight(initial: R, operation: (Long, acc: R) -> R):
R {\n  var index = lastIndex\n  var accumulator = initial\n  while (index >= 0) {\n    accumulator =
operation(get(index--), accumulator)\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with
[initial] value and applying [operation] from right to left\n * to each element
and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param
[operation] function that takes an element and current accumulator value, and calculates the next accumulator
value.\n */\npublic inline fun <R> FloatArray.foldRight(initial: R, operation: (Float, acc: R) -> R): R {\n  var index
= lastIndex\n  var accumulator = initial\n  while (index >= 0) {\n    accumulator = operation(get(index--),
accumulator)\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying

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[operation] from right to left\n \* to each element and current accumulator value.\n \* \n \* Returns the specified [initial] value if the array is empty.\n \* \n \* @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n \*/\npublic inline fun <R>

DoubleArray.foldRight(initial: R, operation: (Double, acc: R) -> R): R {\n var index = lastIndex\n var accumulator = initial\n while (index >= 0) {\n accumulator = operation(get(index--), accumulator)\n }\n return accumulator}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from right to left\n \* to each element and current accumulator value.\n \* \n \* Returns the specified [initial] value if the array is empty.\n \* \n \* @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n \*/\npublic inline fun <R> BooleanArray.foldRight(initial: R, operation: (Boolean, acc: R) -> R): R {\n var index = lastIndex\n var accumulator = initial\n while (index >= 0) {\n accumulator = operation(get(index--), accumulator)\n }\n return accumulator}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from right to left\n \* to each element and current accumulator value.\n \* \n \* Returns the specified [initial] value if the array is empty.\n \* \n \* @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n \*/\npublic inline fun <R> CharArray.foldRight(initial: R, operation: (Char, acc: R) -> R): R {\n var index = lastIndex\n var accumulator = initial\n while (index >= 0) {\n accumulator = operation(get(index--), accumulator)\n }\n return accumulator}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from right to left\n \* to each element with its index in the original array and current accumulator value.\n \* \n \* Returns the specified [initial] value if the array is empty.\n \* \n \* @param [operation] function that takes the index of an element, the element itself\n \* and current accumulator value, and calculates the next accumulator value.\n \*/\npublic inline fun <T, R> Array<out T>.foldRightIndexed(initial: R, operation: (index: Int, T, acc: R) -> R): R {\n var index = lastIndex\n var accumulator = initial\n while (index >= 0) {\n accumulator = operation(index, get(index), accumulator)\n --index\n }\n return accumulator}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from right to left\n \* to each element with its index in the original array and current accumulator value.\n \* \n \* Returns the specified [initial] value if the array is empty.\n \* \n \* @param [operation] function that takes the index of an element, the element itself\n \* and current accumulator value, and calculates the next accumulator value.\n \*/\npublic inline fun <R> ByteArray.foldRightIndexed(initial: R, operation: (index: Int, Byte, acc: R) -> R): R {\n var index = lastIndex\n var accumulator = initial\n while (index >= 0) {\n accumulator = operation(index, get(index), accumulator)\n --index\n }\n return accumulator}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from right to left\n \* to each element with its index in the original array and current accumulator value.\n \* \n \* Returns the specified [initial] value if the array is empty.\n \* \n \* @param [operation] function that takes the index of an element, the element itself\n \* and current accumulator value, and calculates the next accumulator value.\n \*/\npublic inline fun <R> ShortArray.foldRightIndexed(initial: R, operation: (index: Int, Short, acc: R) -> R): R {\n var index = lastIndex\n var accumulator = initial\n while (index >= 0) {\n accumulator = operation(index, get(index), accumulator)\n --index\n }\n return accumulator}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from right to left\n \* to each element with its index in the original array and current accumulator value.\n \* \n \* Returns the specified [initial] value if the array is empty.\n \* \n \* @param [operation] function that takes the index of an element, the element itself\n \* and current accumulator value, and calculates the next accumulator value.\n \*/\npublic inline fun <R> IntArray.foldRightIndexed(initial: R, operation: (index: Int, Int, acc: R) -> R): R {\n var index = lastIndex\n var accumulator = initial\n while (index >= 0) {\n accumulator = operation(index, get(index), accumulator)\n --index\n }\n return accumulator}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from right to left\n \* to each element with its index in the original array and current accumulator value.\n \* \n \* Returns the specified [initial] value if the array is empty.\n \* \n \* @param [operation] function that takes the index of an element, the element itself\n \* and current accumulator value, and calculates the next accumulator value.\n \*/\npublic inline fun <R> LongArray.foldRightIndexed(initial: R, operation: (index: Int, Long, acc: R) ->



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R): R {\n  var index = lastIndex\n  var accumulator
= initial\n  while (index >= 0) {\n    accumulator = operation(index, get(index), accumulator)\n    --index\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from
right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns
the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an
element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n
*/\npublic inline fun <R> FloatArray.foldRightIndexed(initial: R, operation: (index: Int, Float, acc: R) -> R): R {\n
var index = lastIndex\n  var accumulator = initial\n  while (index >= 0) {\n    accumulator = operation(index,
get(index), accumulator)\n    --index\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with
[initial] value and applying [operation] from right to
left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the
specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an
element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n
*/\npublic inline fun <R> DoubleArray.foldRightIndexed(initial: R, operation: (index: Int, Double, acc: R) -> R): R
{\n  var index = lastIndex\n  var accumulator = initial\n  while (index >= 0) {\n    accumulator =
operation(index, get(index), accumulator)\n    --index\n  }\n  return accumulator\n}\n\n/**\n * Accumulates
value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the
original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n *
\n * @param [operation] function that takes the index of an element, the element
itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R>
BooleanArray.foldRightIndexed(initial: R, operation: (index: Int, Boolean, acc: R) -> R): R {\n  var index =
lastIndex\n  var accumulator = initial\n  while (index >= 0) {\n    accumulator = operation(index, get(index),
accumulator)\n    --index\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with [initial]
value and applying [operation] from right to left\n * to each element with its index in the original array and current
accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation]
function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the
next accumulator value.\n */\npublic inline fun <R> CharArray.foldRightIndexed(initial: R, operation: (index: Int,
Char, acc: R) -> R): R {\n  var index = lastIndex\n  var accumulator
= initial\n  while (index >= 0) {\n    accumulator = operation(index, get(index), accumulator)\n    --index\n
  }\n  return accumulator\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun <T>
Array<out T>.forEach(action: (T) -> Unit): Unit {\n  for (element in this) action(element)\n}\n\n/**\n * Performs
the given [action] on each element.\n */\npublic inline fun ByteArray.forEach(action: (Byte) -> Unit): Unit {\n  for
(element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun
ShortArray.forEach(action: (Short) -> Unit): Unit {\n  for (element in this) action(element)\n}\n\n/**\n * Performs
the given [action] on each element.\n */\npublic inline fun IntArray.forEach(action: (Int) -> Unit): Unit {\n  for
(element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun
LongArray.forEach(action: (Long) -> Unit): Unit {\n  for
(element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun
FloatArray.forEach(action: (Float) -> Unit): Unit {\n  for (element in this) action(element)\n}\n\n/**\n * Performs
the given [action] on each element.\n */\npublic inline fun DoubleArray.forEach(action: (Double) -> Unit): Unit {\n
for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline
fun BooleanArray.forEach(action: (Boolean) -> Unit): Unit {\n  for (element in this) action(element)\n}\n\n/**\n *
Performs the given [action] on each element.\n */\npublic inline fun CharArray.forEach(action: (Char) -> Unit):
Unit {\n  for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element, providing
sequential index with the element.\n * \n * @param [action] function that takes the index of an element and the element
itself\n * and performs the action on the element.\n */\npublic
inline fun <T> Array<out T>.forEachIndexed(action: (index: Int, T) -> Unit): Unit {\n  var index = 0\n  for (item
in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index

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with the element.

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    * @param [action] function that takes the index of an element and the element itself
    * and performs the action on the element.
    * ^\npublic inline fun ByteArray.forEachIndexed(action: (index: Int, Byte) ->
    Unit): Unit {
    \n    var index = 0
    \n    for (item in this) action(index++, item)
    \n}
    * Performs the given [action] on each element, providing sequential index with the element.
    * @param [action] function that takes the index of an element and the element itself
    * and performs the action on the element.
    * ^\npublic inline fun ShortArray.forEachIndexed(action: (index: Int, Short) -> Unit): Unit {
    \n    var index = 0
    \n    for (item in this)
    action(index++, item)
    \n}
    * Performs the given [action] on each element, providing sequential index with the element.
    * @param [action] function that takes the index of an element and the element itself
    * and performs the action on the element.
    * ^\npublic inline fun IntArray.forEachIndexed(action: (index: Int, Int) -> Unit): Unit {
    \n    var index = 0
    \n    for (item in this) action(index++, item)
    \n}
    * Performs the given [action] on each element, providing sequential index with the element.
    * @param [action] function that takes the index of an element and the element itself
    * and performs the action on the element.
    * ^\npublic inline fun LongArray.forEachIndexed(action: (index: Int, Long) -> Unit): Unit {
    \n    var index = 0
    \n    for (item in this)
    action(index++, item)
    \n}
    * Performs the given [action] on each element, providing sequential index with the element.
    * @param [action] function that takes the index of an element and the element itself
    * and performs the action on the element.
    * ^\npublic inline fun FloatArray.forEachIndexed(action: (index: Int, Float) -> Unit): Unit {
    \n    var index = 0
    \n    for (item in this) action(index++, item)
    \n}
    * Performs the given [action] on each element, providing sequential index with the element.
    * @param [action] function that takes the index of an element and the element itself
    * and performs the action on the element.
    * ^\npublic inline fun DoubleArray.forEachIndexed(action: (index: Int, Double) -> Unit): Unit {
    \n    var index = 0
    \n    for (item in this) action(index++, item)
    \n}
    * Performs the given [action] on each element, providing sequential index with the element.
    * @param [action] function that takes the index of an element and the element itself
    * and performs the action on the element.
    * ^\npublic inline fun BooleanArray.forEachIndexed(action: (index: Int, Boolean) -> Unit): Unit {
    \n    var index = 0
    \n    for (item in this) action(index++, item)
    \n}
    * Performs the given [action] on each element, providing sequential index with the element.
    * @param [action] function that takes the index of an element and the element itself
    * and performs the action on the element.
    * ^\npublic inline fun CharArray.forEachIndexed(action: (index: Int, Char) -> Unit): Unit {
    \n    var index = 0
    \n    for (item in this) action(index++, item)
    \n}
    * @Deprecated("Use maxOrNull instead.", ReplaceWith("this.maxOrNull()"))
    * @DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5", hiddenSince = "1.6")
    * @SinceKotlin("1.1")
    * public fun Array<out Double>.max(): Double? {
    \n    return maxOrNull()
    \n}
    * @Deprecated("Use maxOrNull instead.", ReplaceWith("this.maxOrNull()"))
    * @DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5", hiddenSince = "1.6")
    * @SinceKotlin("1.1")
    * public fun Array<out Float>.max(): Float? {
    \n    return maxOrNull()
    \n}
    * @Deprecated("Use maxOrNull instead.", ReplaceWith("this.maxOrNull()"))
    * @DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5", hiddenSince = "1.6")
    * public fun <T : Comparable<T>> Array<out T>.max(): T? {
    \n    return maxOrNull()
    \n}
    * @Deprecated("Use maxOrNull instead.", ReplaceWith("this.maxOrNull()"))
    * @DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5", hiddenSince = "1.6")
    * public fun ByteArray.max(): Byte? {
    \n    return maxOrNull()
    \n}
    * @Deprecated("Use maxOrNull instead.", ReplaceWith("this.maxOrNull()"))
    * @DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5", hiddenSince = "1.6")
    * public fun ShortArray.max(): Short? {
    \n    return maxOrNull()
    \n}
    * @Deprecated("Use maxOrNull instead.", ReplaceWith("this.maxOrNull()"))
    * @DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5", hiddenSince = "1.6")
    * public fun IntArray.max(): Int? {
    \n    return maxOrNull()
    \n}
    * @Deprecated("Use maxOrNull instead.", ReplaceWith("this.maxOrNull()"))
    * @DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5", hiddenSince = "1.6")
    * public fun LongArray.max():

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Long? {\n  return maxOrNull()\n}\n\n@Deprecated("Use maxOrNull instead.\",
ReplaceWith("this.maxOrNull()\")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5",
hiddenSince = "1.6")\npublic fun FloatArray.max(): Float? {\n  return maxOrNull()\n}\n\n@Deprecated("Use
maxOrNull instead.\", ReplaceWith("this.maxOrNull()\")\n@DeprecatedSinceKotlin(warningSince = "1.4",
errorSince = "1.5", hiddenSince = "1.6")\npublic fun DoubleArray.max(): Double? {\n  return
maxOrNull()\n}\n\n@Deprecated("Use maxOrNull instead.\",
ReplaceWith("this.maxOrNull()\")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5",
hiddenSince = "1.6")\npublic fun CharArray.max(): Char? {\n  return maxOrNull()\n}\n\n@Deprecated("Use
maxByOrNull instead.\", ReplaceWith("this.maxByOrNull(selector)\")\n@DeprecatedSinceKotlin(warningSince =
"1.4", errorSince = "1.5", hiddenSince = "1.6")\npublic inline fun <T, R : Comparable<R>> Array<out
T>.maxBy(selector:
(T) -> R): T? {\n  return maxByOrNull(selector)\n}\n\n@Deprecated("Use maxByOrNull instead.\",
ReplaceWith("this.maxByOrNull(selector)\")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince =
"1.5", hiddenSince = "1.6")\npublic inline fun <R : Comparable<R>> ByteArray.maxBy(selector: (Byte) -> R):
Byte? {\n  return maxByOrNull(selector)\n}\n\n@Deprecated("Use maxByOrNull instead.\",
ReplaceWith("this.maxByOrNull(selector)\")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince =
"1.5", hiddenSince = "1.6")\npublic inline fun <R : Comparable<R>> ShortArray.maxBy(selector: (Short) -> R):
Short? {\n  return maxByOrNull(selector)\n}\n\n@Deprecated("Use maxByOrNull instead.\",
ReplaceWith("this.maxByOrNull(selector)\")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince =
"1.5", hiddenSince = "1.6")\npublic inline fun <R : Comparable<R>> IntArray.maxBy(selector: (Int) -> R): Int?
{\n  return maxByOrNull(selector)\n}\n\n@Deprecated("Use maxByOrNull
instead.\", ReplaceWith("this.maxByOrNull(selector)\")\n@DeprecatedSinceKotlin(warningSince = "1.4",
errorSince = "1.5", hiddenSince = "1.6")\npublic inline fun <R : Comparable<R>> LongArray.maxBy(selector:
(Long) -> R): Long? {\n  return maxByOrNull(selector)\n}\n\n@Deprecated("Use maxByOrNull instead.\",
ReplaceWith("this.maxByOrNull(selector)\")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince =
"1.5", hiddenSince = "1.6")\npublic inline fun <R : Comparable<R>> FloatArray.maxBy(selector: (Float) -> R):
Float? {\n  return maxByOrNull(selector)\n}\n\n@Deprecated("Use maxByOrNull instead.\",
ReplaceWith("this.maxByOrNull(selector)\")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince =
"1.5", hiddenSince = "1.6")\npublic inline fun <R : Comparable<R>> DoubleArray.maxBy(selector: (Double) ->
R): Double? {\n  return maxByOrNull(selector)\n}\n\n@Deprecated("Use maxByOrNull instead.\",
ReplaceWith("this.maxByOrNull(selector)\")\n@DeprecatedSinceKotlin(warningSince
= "1.4", errorSince = "1.5", hiddenSince = "1.6")\npublic inline fun <R : Comparable<R>>
BooleanArray.maxBy(selector: (Boolean) -> R): Boolean? {\n  return
maxByOrNull(selector)\n}\n\n@Deprecated("Use maxByOrNull instead.\",
ReplaceWith("this.maxByOrNull(selector)\")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince =
"1.5", hiddenSince = "1.6")\npublic inline fun <R : Comparable<R>> CharArray.maxBy(selector: (Char) -> R):
Char? {\n  return maxByOrNull(selector)\n}\n\n/**\n * Returns the first element yielding the largest value of the
given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin("1.4")\npublic inline fun <T, R :
Comparable<R>> Array<out T>.maxByOrNull(selector: (T) -> R): T? {\n  if (isEmpty()) return null\n  var
maxElem = this[0]\n  val lastIndex = this.lastIndex\n  if (lastIndex == 0) return maxElem\n  var maxVal =
selector(maxElem)\n
  for (i in 1..lastIndex) {\n    val e = this[i]\n    val v = selector(e)\n    if (maxVal < v) {\n      maxElem
= e\n      maxVal = v\n    }\n  }\n  return maxElem\n}\n\n/**\n * Returns the first element yielding the
largest value of the given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin("1.4")\npublic inline fun <R :
Comparable<R>> ByteArray.maxByOrNull(selector: (Byte) -> R): Byte? {\n  if (isEmpty()) return null\n  var
maxElem = this[0]\n  val lastIndex = this.lastIndex\n  if (lastIndex == 0) return maxElem\n  var maxVal =

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selector(maxElem)\n for (i in 1..lastIndex) {\n     val e = this[i]\n     val v = selector(e)\n     if (maxValue < v)\n     {\n         maxElem = e\n         maxVAlue = v\n     }\n }\n }\n return maxElem\n}\n\n/**\n * Returns the first\n element yielding the largest value of the given function\n or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin("1.4")\npublic inline fun <R : Comparable<R>> ShortArray.maxByOrNull(selector: (Short) -> R): Short? {\n    if (isEmpty()) return null\n    var maxElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return maxElem\n    var maxVAlue = selector(maxElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (maxVAlue < v) {\n            maxElem = e\n            maxVAlue = v\n        }\n    }\n    return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or\n `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin("1.4")\npublic inline fun <R : Comparable<R>> IntArray.maxByOrNull(selector: (Int) -> R): Int? {\n    if (isEmpty()) return null\n    var maxElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return maxElem\n    var maxVAlue = selector(maxElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (maxVAlue < v) {\n            maxElem = e\n            maxVAlue = v\n        }\n    }\n    return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value\n of the given function or `null` if there are no elements.\n * \n * @sample\n samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin("1.4")\npublic inline fun <R : Comparable<R>> LongArray.maxByOrNull(selector: (Long) -> R): Long? {\n    if (isEmpty()) return null\n    var maxElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return maxElem\n    var maxVAlue = selector(maxElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (maxVAlue < v)\n        {\n            maxElem = e\n            maxVAlue = v\n        }\n    }\n    return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample\n samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin("1.4")\npublic inline fun <R : Comparable<R>> FloatArray.maxByOrNull(selector: (Float) -> R): Float? {\n    if (isEmpty()) return null\n    var maxElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return maxElem\n    var maxVAlue = selector(maxElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (maxVAlue < v)\n        {\n            maxElem = e\n            maxVAlue = v\n        }\n    }\n    return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample\n samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin("1.4")\npublic inline fun <R : Comparable<R>> DoubleArray.maxByOrNull(selector: (Double) -> R): Double? {\n    if (isEmpty()) return null\n    var maxElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return maxElem\n    var maxVAlue = selector(maxElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (maxVAlue < v)\n        {\n            maxElem = e\n            maxVAlue = v\n        }\n    }\n    return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or\n `null` if there are no elements.\n * \n * @sample\n samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin("1.4")\npublic inline fun <R : Comparable<R>> BooleanArray.maxByOrNull(selector: (Boolean) -> R): Boolean? {\n    if (isEmpty()) return null\n    var maxElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return maxElem\n    var maxVAlue = selector(maxElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (maxVAlue < v)\n        {\n            maxElem = e\n            maxVAlue = v\n        }\n    }\n    return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample\n samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin("1.4")\npublic inline fun <R : Comparable<R>> CharArray.maxByOrNull(selector: (Char) -> R): Char? {\n    if (isEmpty()) return null\n    var maxElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return maxElem\n    var maxVAlue = selector(maxElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (maxVAlue < v)\n        {\n            maxElem = e\n            maxVAlue = v\n        }\n    }\n    return maxElem\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned

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result is `NaN`. \n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.maxOf(selector: (T) ->
Double): Double {\n    if (isEmpty()) throw NoSuchElementException()\n    var maxValue = selector(this[0])\n    for
(i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return
maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline
fun ByteArray.maxOf(selector: (Byte) -> Double): Double {\n    if (isEmpty()) throw NoSuchElementException()\n
    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue =
maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced
by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector]
function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.maxOf(selector: (Short) ->
Double): Double {\n    if (isEmpty()) throw NoSuchElementException()\n    var maxValue = selector(this[0])\n    for
(i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue,
v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector]
function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`,
the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.maxOf(selector: (Int) -> Double):
Double {\n    if (isEmpty()) throw NoSuchElementException()\n    var maxValue = selector(this[0])\n    for (i in
1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return
maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.\n
*\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.maxOf(selector: (Long) ->
Double): Double {\n    if (isEmpty()) throw NoSuchElementException()\n    var maxValue = selector(this[0])\n    for
(i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return
maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.maxOf(selector:
(Float) -> Double): Double {\n    if (isEmpty()) throw NoSuchElementException()\n    var maxValue =
selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n
    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n
* applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned
result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.maxOf(selector: (Double) ->
Double): Double {\n    if (isEmpty()) throw NoSuchElementException()\n    var maxValue = selector(this[0])\n    for
(i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return
maxValue\n}

```

```

maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.maxOf(selector: (Boolean) -> Double): Double {\n    if (isEmpty()) throw NoSuchElementException()\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.maxOf(selector: (Char) -> Double): Double {\n    if (isEmpty()) throw NoSuchElementException()\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.maxOf(selector: (T) -> Float): Float {\n    if (isEmpty()) throw NoSuchElementException()\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.maxOf(selector: (Byte) -> Float): Float {\n    if (isEmpty()) throw NoSuchElementException()\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.maxOf(selector: (Short) -> Float): Float {\n    if (isEmpty()) throw NoSuchElementException()\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.maxOf(selector: (Int) -> Float): Float {\n    if (isEmpty()) throw NoSuchElementException()\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */

```

```

*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.maxOf(selector: (Long) ->
Float):
Float {\n  if (isEmpty()) throw NoSuchElementException()\n  var maxValue = selector(this[0])\n  for (i in
1..lastIndex) {\n    val v = selector(this[i])\n    maxValue = maxOf(maxValue, v)\n  }\n  return
maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.maxOf(selector: (Float) ->
Float): Float {\n  if (isEmpty()) throw NoSuchElementException()\n  var maxValue = selector(this[0])\n  for (i
in 1..lastIndex) {\n    val v = selector(this[i])\n    maxValue = maxOf(maxValue, v)\n  }\n  return
maxValue\n}\n\n/**\n * Returns the
largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If
any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.maxOf(selector: (Double) ->
Float): Float {\n  if (isEmpty()) throw NoSuchElementException()\n  var maxValue = selector(this[0])\n  for (i
in 1..lastIndex) {\n    val v = selector(this[i])\n    maxValue = maxOf(maxValue, v)\n  }\n  return
maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.\n * \n * @throws NoSuchElementException if the array
is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.maxOf(selector: (Boolean) ->
Float): Float {\n  if (isEmpty()) throw NoSuchElementException()\n  var maxValue = selector(this[0])\n  for (i
in 1..lastIndex) {\n    val v = selector(this[i])\n    maxValue = maxOf(maxValue, v)\n  }\n  return
maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.maxOf(selector: (Char) -> Float):
Float {\n  if
(isEmpty()) throw NoSuchElementException()\n  var maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n
val v = selector(this[i])\n    maxValue = maxOf(maxValue, v)\n  }\n  return maxValue\n}\n\n/**\n * Returns
the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n *
@throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Array<out
T>.maxOf(selector: (T) -> R): R {\n  if (isEmpty()) throw NoSuchElementException()\n  var maxValue =
selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (maxValue < v) {\n
maxValue = v\n    }\n  }\n  return maxValue\n}\n\n/**\n * Returns the largest value among all values produced
by [selector] function\n * applied
to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
ByteArray.maxOf(selector: (Byte) -> R): R {\n  if (isEmpty()) throw NoSuchElementException()\n  var

```

```

maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (maxValue < v) {\n      maxValue = v\n    }\n  }\n  return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
ShortArray.maxOf(selector:
    (Short) -> R): R {\n  if (isEmpty()) throw NoSuchElementException()\n  var maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (maxValue < v) {\n      maxValue = v\n    }\n  }\n  return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
IntArray.maxOf(selector: (Int) -> R): R {\n  if (isEmpty()) throw NoSuchElementException()\n  var maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (maxValue < v) {\n      maxValue = v\n    }\n  }\n  return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
LongArray.maxOf(selector: (Long) -> R): R {\n  if (isEmpty()) throw NoSuchElementException()\n  var maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (maxValue < v) {\n      maxValue = v\n    }\n  }\n  return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> FloatArray.maxOf(selector: (Float) -> R): R {\n  if (isEmpty()) throw NoSuchElementException()\n  var maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (maxValue < v) {\n      maxValue = v\n    }\n  }\n  return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
DoubleArray.maxOf(selector: (Double) -> R): R {\n  if (isEmpty()) throw NoSuchElementException()\n  var maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (maxValue < v) {\n      maxValue = v\n    }\n  }\n  return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
BooleanArray.maxOf(selector: (Boolean) -> R): R {\n  if (isEmpty()) throw NoSuchElementException()\n  var maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (maxValue < v) {\n      maxValue = v\n    }\n  }\n  return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic

```



```
inline fun <R : Comparable<R>> CharArray.maxOf(selector: (Char) -> R): R {
    if (isEmpty()) throw NoSuchElementException()
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        if (maxValue < v) {
            maxValue = v
        }
    }
    return maxValue
}
```

Returns the largest value among all values produced by [selector] function applied to each element in the array or `null` if there are no elements. If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.maxOfOrNull(selector: (T) -> Double): Double? {
    if (isEmpty()) return null
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        maxValue = maxOf(maxValue, v)
    }
    return maxValue
}
```

Returns the largest value among all values produced by [selector] function applied to each element in the array or `null` if there are no elements. If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.maxOfOrNull(selector: (Byte) -> Double): Double? {
    if (isEmpty()) return null
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        maxValue = maxOf(maxValue, v)
    }
    return maxValue
}
```

Returns the largest value among all values produced by [selector] function applied to each element in the array or `null` if there are no elements. If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.maxOfOrNull(selector: (Short) -> Double): Double? {
    if (isEmpty()) return null
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        maxValue = maxOf(maxValue, v)
    }
    return maxValue
}
```

Returns the largest value among all values produced by [selector] function applied to each element in the array or `null` if there are no elements. If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.maxOfOrNull(selector: (Int) -> Double): Double? {
    if (isEmpty()) return null
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        maxValue = maxOf(maxValue, v)
    }
    return maxValue
}
```

Returns the largest value among all values produced by [selector] function applied to each element in the array or `null` if there are no elements. If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.maxOfOrNull(selector: (Long) -> Double): Double? {
    if (isEmpty()) return null
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        maxValue = maxOf(maxValue, v)
    }
    return maxValue
}
```

Returns the largest value among all values produced by [selector] function applied to each element in the array or `null` if there are no elements. If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.maxOfOrNull(selector: (Float) -> Double): Double? {
    if (isEmpty()) return null
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        maxValue = maxOf(maxValue, v)
    }
    return maxValue
}
```

Returns the largest value among all values produced by [selector] function applied to each element in the array

or `null` if there are no elements.\n \* \n \* If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
```

```
inline fun DoubleArray.maxOrNull(selector: (Double) -> Double): Double? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue =\n        maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced\n * by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of\n * values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.maxOrNull(selector:
```

```
(Boolean) -> Double): Double? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in\n    1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue,\n        v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector]\n * function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced\n * by [selector] function is `NaN`, the returned result is `NaN`.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.maxOrNull(selector: (Char) ->
```

```
Double): Double? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns\n * the largest value among all values produced by [selector] function\n * applied to each element in the array or `null`\n * if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result\n * is `NaN`.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.maxOrNull(selector:
```

```
(T) -> Float): Float? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex)\n    {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array\n * or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned\n * result is `NaN`.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.maxOrNull(selector: (Byte) ->
```

```
Float): Float? {\n    if (isEmpty()) return null\n    var maxValue\n    = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue,\n        v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector]\n * function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced\n * by [selector] function is `NaN`, the returned result is `NaN`.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.maxOrNull(selector: (Short) -
```

```
> Float): Float? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns\n * the largest value among all values produced by [selector] function\n * applied to each element in the array or `null`\n * if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is\n * `NaN`.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.maxOrNull(selector: (Int) ->
```

```
Float): Float? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns
```

the largest value among all values produced by [selector] function\n \* applied to each element in the array or `null` if there are no elements.\n \* \n \* If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun
```

```
LongArray.maxOrNull(selector: (Long) -> Float): Float? {\n    if (isEmpty()) return null\n    var maxValue =\n    selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector]\n * function is `NaN`, the returned result is `NaN`.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.maxOrNull(selector: (Float) -\n> Float): Float? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns\n * the largest
```

value among all values produced by [selector] function\n \* applied to each element in the array or `null` if there are no elements.\n \* \n \* If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.maxOrNull(selector:\n(Double) -> Float): Float? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in\n    1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return\n    maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to\n * each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function\n * is `NaN`, the returned result is `NaN`.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic\n\ninline fun BooleanArray.maxOrNull(selector: (Boolean) -> Float): Float? {\n    if (isEmpty()) return null\n    var\n    maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue =\n        maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced\n * by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of\n * values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.maxOrNull(selector: (Char) ->\nFloat): Float? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val\n        v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the\n * largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if\n * there are no elements.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Array<out\nT>.maxOrNull(selector: (T) -> R): R? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for\n    (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if (maxValue < v) {\n            maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * \n * applied to each element in the array or `null` if there are no elements.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
```

```
inline fun <R : Comparable<R>> ByteArray.maxOrNull(selector: (Byte) -> R): R? {\n    if (isEmpty()) return\n    null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if
```



```

[comparator]\n * among all values
produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if
the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Array<out
T>.maxOfWith(comparator: Comparator<in R>, selector: (T) -> R): R {\n if (isEmpty()) throw
NoSuchElementException()\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v =
selector(this[i])\n if (comparator.compare(maxValue, v) < 0) {\n maxValue = v\n }\n }\n return
maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values
produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if
the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <R> ByteArray.maxOfWith(comparator: Comparator<in R>, selector: (Byte) -> R): R {\n if
(isEmpty()) throw NoSuchElementException()\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n
val v = selector(this[i])\n if (comparator.compare(maxValue, v) < 0) {\n maxValue = v\n }\n }\n
return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all
values produced by [selector] function applied to each element in the array.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> ShortArray.maxOfWith(comparator:
Comparator<in R>, selector: (Short) -> R): R {\n if (isEmpty()) throw NoSuchElementException()\n var
maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if (comparator.compare(maxValue, v) < 0) {\n
maxValue = v\n }\n }\n return maxValue\n}\n\n/**\n * Returns the largest value according to the provided
[comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n *
@throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> IntArray.maxOfWith(comparator:
Comparator<in R>, selector: (Int) -> R): R {\n if (isEmpty()) throw NoSuchElementException()\n var maxValue
= selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if
(comparator.compare(maxValue, v) < 0) {\n maxValue = v\n }\n }\n return maxValue\n}\n\n/**\n *
Returns the largest value according
to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the
array.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> LongArray.maxOfWith(comparator:
Comparator<in R>, selector: (Long) -> R): R {\n if (isEmpty()) throw NoSuchElementException()\n var
maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if
(comparator.compare(maxValue, v) < 0) {\n maxValue = v\n }\n }\n return maxValue\n}\n\n/**\n *
Returns the largest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <R> FloatArray.maxOfWith(comparator: Comparator<in R>, selector: (Float) -> R): R {\n if
(isEmpty()) throw NoSuchElementException()\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n
val v = selector(this[i])\n if (comparator.compare(maxValue, v) < 0) {\n maxValue = v\n }\n }\n
return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all

```

values produced by [selector] function applied to each element in the array.\n \* \n \* @throws NoSuchElementException if the array is empty.\n

```

*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> DoubleArray.maxOfWith(comparator:
Comparator<in R>, selector: (Double) -> R): R {\n    if (isEmpty())
    throw NoSuchElementException()\n    var maxVAlue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =
selector(this[i])\n        if (comparator.compare(maxVAlue, v) < 0) {\n            maxVAlue = v\n        }\n    }\n    return
maxVAlue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values
produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if
the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> BooleanArray.maxOfWith(comparator:
Comparator<in R>, selector: (Boolean) -> R): R {\n    if (isEmpty()) throw NoSuchElementException()\n    var
maxVAlue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if
(comparator.compare(maxVAlue, v) < 0) {\n            maxVAlue = v\n        }\n    }\n    return maxVAlue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among
all values produced by [selector] function applied to each element in the array.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharArray.maxOfWith(comparator:
Comparator<in R>, selector: (Char) -> R): R {\n    if (isEmpty()) throw NoSuchElementException()\n    var
maxVAlue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if
(comparator.compare(maxVAlue, v) < 0) {\n            maxVAlue = v\n        }\n    }\n    return maxVAlue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <T, R> Array<out T>.maxOfWithOrNull(comparator: Comparator<in R>, selector: (T) -> R): R? {\n    if
(isEmpty()) return null\n    var maxVAlue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =
selector(this[i])\n        if (comparator.compare(maxVAlue, v) < 0) {\n            maxVAlue = v\n        }\n    }\n    return
maxVAlue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values
produced by [selector] function applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
ByteArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Byte) -> R): R? {\n    if (isEmpty())
return null\n    var maxVAlue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if
(comparator.compare(maxVAlue, v) < 0) {\n            maxVAlue = v\n        }\n    }\n    return maxVAlue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
ShortArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Short) -> R): R? {\n    if (isEmpty())
return null\n    var maxVAlue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if
(comparator.compare(maxVAlue, v) < 0) {\n            maxVAlue = v\n        }\n    }\n    return maxVAlue\n}\n\n/**\n * Returns the largest
value according to the provided [comparator]\n * among all values produced by [selector] function applied to each
element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

```

```

ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
IntArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Int) -> R): R? {\n  if (isEmpty()) return
null\n  var maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if
(comparator.compare(maxValue, v) < 0) {\n      maxValue = v\n    }\n  }\n  return maxValue\n}\n\n/**\n *
Returns the largest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <R> LongArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Long) -> R): R? {\n  if
(isEmpty()) return null\n  var maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v =
selector(this[i])\n    if (comparator.compare(maxValue, v) < 0) {\n      maxValue = v\n    }\n  }\n  return
maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values
produced by [selector] function applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
FloatArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Float) -> R): R? {\n  if (isEmpty())
return null\n  var maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val
v = selector(this[i])\n    if (comparator.compare(maxValue, v) < 0) {\n      maxValue = v\n    }\n  }\n  return
maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all
values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
DoubleArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Double) -> R): R? {\n  if (isEmpty())
return null\n  var maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if
(comparator.compare(maxValue, v) < 0) {\n      maxValue = v\n    }\n  }\n  return maxValue\n}\n\n/**\n *
Returns the largest value according to the provided [comparator]\n * among all values produced by [selector]
function
applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
BooleanArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Boolean) -> R): R? {\n  if (isEmpty())
return null\n  var maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if
(comparator.compare(maxValue, v) < 0) {\n      maxValue = v\n    }\n  }\n  return maxValue\n}\n\n/**\n *
Returns the largest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
CharArray.maxOfWithOrNull(comparator:
Comparator<in R>, selector: (Char) -> R): R? {\n  if (isEmpty()) return null\n  var maxValue = selector(this[0])\n
for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (comparator.compare(maxValue, v) < 0) {\n
maxValue = v\n    }\n  }\n  return maxValue\n}\n\n/**\n * Returns the largest element or `null` if there are no
elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n *\n@SinceKotlin("1.4")\npublic fun Array<out
Double>.maxOrNull(): Double? {\n  if (isEmpty()) return null\n  var max = this[0]\n  for (i in 1..lastIndex) {\n
val e = this[i]\n    max = maxOf(max, e)\n  }\n  return max\n}\n\n/**\n * Returns the largest element or `null`
if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n *\n@SinceKotlin("1.4")\npublic fun
Array<out Float>.maxOrNull(): Float? {\n  if (isEmpty()) return null\n  var max = this[0]\n  for (i in
1..lastIndex) {\n

```

```

    val e = this[i]\n    max = maxOf(max, e)\n    }\n    return max\n}\n\n/**\n * Returns the largest element or `null`
if there are no elements.\n */\n@SinceKotlin("1.4")\npublic fun <T : Comparable<T>> Array<out
T>.maxOrNull(): T? {\n    if (isEmpty()) return null\n    var max = this[0]\n    for (i in 1..lastIndex) {\n        val e =
this[i]\n        if (max < e) max = e\n    }\n    return max\n}\n\n/**\n * Returns the largest element or `null` if there are
no elements.\n */\n@SinceKotlin("1.4")\npublic fun ByteArray.maxOrNull(): Byte? {\n    if (isEmpty()) return
null\n    var max = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (max < e) max = e\n    }\n    return
max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin("1.4")\npublic
fun ShortArray.maxOrNull(): Short? {\n    if (isEmpty()) return null\n    var max = this[0]\n    for (i in 1..lastIndex)
{\n        val e = this[i]\n        if (max < e) max
= e\n    }\n    return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin("1.4")\npublic
fun IntArray.maxOrNull(): Int? {\n    if (isEmpty()) return null\n    var max =
this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (max < e) max = e\n    }\n    return max\n}\n\n/**\n *
Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin("1.4")\npublic fun
LongArray.maxOrNull(): Long? {\n    if (isEmpty()) return null\n    var max = this[0]\n    for (i in 1..lastIndex) {\n
        val e = this[i]\n        if (max < e) max = e\n    }\n    return max\n}\n\n/**\n * Returns the largest element or `null`
if there are no elements.\n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin("1.4")\npublic fun
FloatArray.maxOrNull(): Float? {\n    if (isEmpty()) return null\n    var max = this[0]\n    for (i in 1..lastIndex) {\n
        val e = this[i]\n        max = maxOf(max, e)\n
    }\n    return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n * If any of
elements is `NaN` returns `NaN`.\n */\n@SinceKotlin("1.4")\npublic fun DoubleArray.maxOrNull(): Double? {\n    if
(isEmpty()) return null\n    var max = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        max =
maxOf(max, e)\n    }\n    return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin("1.4")\npublic
fun CharArray.maxOrNull(): Char? {\n    if (isEmpty()) return null\n    var max =
this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (max < e) max = e\n    }\n    return
max\n}\n\n@Deprecated("Use maxWithOrNull instead.",
ReplaceWith("this.maxWithOrNull(comparator)"))\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince
= "1.5", hiddenSince = "1.6")\npublic fun <T> Array<out T>.maxWith(comparator: Comparator<in T>): T? {\n    return
maxWithOrNull(comparator)\n}\n\n@Deprecated("Use
maxWithOrNull instead.",
ReplaceWith("this.maxWithOrNull(comparator)"))\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince
= "1.5", hiddenSince = "1.6")\npublic fun ByteArray.maxWith(comparator: Comparator<in Byte>): Byte? {\n    return
maxWithOrNull(comparator)\n}\n\n@Deprecated("Use
maxWithOrNull instead.",
ReplaceWith("this.maxWithOrNull(comparator)"))\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince
= "1.5", hiddenSince = "1.6")\npublic fun ShortArray.maxWith(comparator: Comparator<in Short>): Short? {\n    return
maxWithOrNull(comparator)\n}\n\n@Deprecated("Use
maxWithOrNull instead.",
ReplaceWith("this.maxWithOrNull(comparator)"))\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince
= "1.5", hiddenSince = "1.6")\npublic fun IntArray.maxWith(comparator: Comparator<in Int>): Int? {\n    return
maxWithOrNull(comparator)\n}\n\n@Deprecated("Use
maxWithOrNull instead.",
ReplaceWith("this.maxWithOrNull(comparator)"))\n@DeprecatedSinceKotlin(warningSince
= "1.4", errorSince = "1.5", hiddenSince = "1.6")\npublic fun LongArray.maxWith(comparator: Comparator<in
Long>): Long? {\n    return maxWithOrNull(comparator)\n}\n\n@Deprecated("Use
maxWithOrNull instead.",
ReplaceWith("this.maxWithOrNull(comparator)"))\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince
= "1.5", hiddenSince = "1.6")\npublic fun FloatArray.maxWith(comparator: Comparator<in Float>): Float? {\n    return
maxWithOrNull(comparator)\n}\n\n@Deprecated("Use
maxWithOrNull instead.",
ReplaceWith("this.maxWithOrNull(comparator)"))\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince
= "1.5", hiddenSince = "1.6")\npublic fun DoubleArray.maxWith(comparator: Comparator<in Double>): Double?
{\n    return maxWithOrNull(comparator)\n}\n\n@Deprecated("Use
maxWithOrNull instead.",
ReplaceWith("this.maxWithOrNull(comparator)"))\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince

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= \"1.5\", hiddenSince
= \"1.6\")\npublic fun BooleanArray.maxWith(comparator: Comparator<in Boolean>): Boolean? {\n  return
maxWithOrNull(comparator)\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\",
ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince
= \"1.5\", hiddenSince = \"1.6\")\npublic fun CharArray.maxWith(comparator: Comparator<in Char>): Char? {\n
return maxWithOrNull(comparator)\n}\n\n/**\n * Returns the first element having the largest value according to the
provided [comparator] or `null` if there are no elements.\n *^\n@SinceKotlin(\"1.4\")\npublic fun <T> Array<out
T>.maxWithOrNull(comparator: Comparator<in T>): T? {\n  if (isEmpty()) return null\n  var max = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if (comparator.compare(max, e) < 0) max = e\n  }\n  return
max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null`
if there are no
elements.\n *^\n@SinceKotlin(\"1.4\")\npublic fun ByteArray.maxWithOrNull(comparator: Comparator<in Byte>):
Byte? {\n  if (isEmpty()) return null\n  var max = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if
(comparator.compare(max, e) < 0) max = e\n  }\n  return max\n}\n\n/**\n * Returns the first element having the
largest value according to the provided [comparator] or `null` if there are no elements.\n
*^\n@SinceKotlin(\"1.4\")\npublic fun ShortArray.maxWithOrNull(comparator: Comparator<in Short>): Short? {\n
if (isEmpty()) return null\n  var max = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if
(comparator.compare(max, e) < 0) max = e\n  }\n  return max\n}\n\n/**\n * Returns the first element having the
largest value according to the provided [comparator] or `null` if there are no elements.\n
*^\n@SinceKotlin(\"1.4\")\npublic fun IntArray.maxWithOrNull(comparator: Comparator<in Int>): Int? {\n  if
(isEmpty())
return null\n  var max = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if (comparator.compare(max,
e) < 0) max = e\n  }\n  return max\n}\n\n/**\n * Returns the first element having the largest value according to the
provided [comparator] or `null` if there are no elements.\n *^\n@SinceKotlin(\"1.4\")\npublic fun
LongArray.maxWithOrNull(comparator: Comparator<in Long>): Long? {\n  if (isEmpty()) return null\n  var max
= this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if (comparator.compare(max, e) < 0) max = e\n  }\n
return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator]
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Comparator<in Float>): Float? {\n  if (isEmpty()) return null\n  var max = this[0]\n  for (i in 1..lastIndex) {\n
val e = this[i]\n    if (comparator.compare(max,
e) < 0) max = e\n  }\n  return max\n}\n\n/**\n * Returns the first element having the largest value according to
the provided [comparator] or `null` if there are no elements.\n *^\n@SinceKotlin(\"1.4\")\npublic fun
DoubleArray.maxWithOrNull(comparator: Comparator<in Double>): Double? {\n  if (isEmpty()) return null\n
var max = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if (comparator.compare(max, e) < 0) max =
e\n  }\n  return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided
[comparator] or `null` if there are no elements.\n *^\n@SinceKotlin(\"1.4\")\npublic fun
BooleanArray.maxWithOrNull(comparator: Comparator<in Boolean>): Boolean? {\n  if (isEmpty()) return null\n
var max = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if (comparator.compare(max, e) < 0) max =
e\n  }\n  return max\n}\n\n/**\n * Returns the first element having the largest value according to the
provided [comparator] or `null` if there are no elements.\n *^\n@SinceKotlin(\"1.4\")\npublic fun
CharArray.maxWithOrNull(comparator: Comparator<in Char>): Char? {\n  if (isEmpty()) return null\n  var max
= this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if (comparator.compare(max, e) < 0) max = e\n  }\n
return max\n}\n\n@Deprecated(\"Use minOrNull instead.\",
ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\",
hiddenSince = \"1.6\")\n@SinceKotlin(\"1.1\")\npublic fun Array<out Double>.min(): Double? {\n  return
minOrNull()\n}\n\n@Deprecated(\"Use minOrNull instead.\",
ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\",
hiddenSince = \"1.6\")\n@SinceKotlin(\"1.1\")\npublic fun Array<out Float>.min(): Float? {\n  return

```

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minOrNull()\n}\n\n@Deprecated(\\"Use minOrNull instead.\",
ReplaceWith(\\"this.minOrNull()\")\n)\n@DeprecatedSinceKotlin(warningSince
= \\"1.4\\", errorSince = \\"1.5\\", hiddenSince = \\"1.6\\")\npublic fun <T : Comparable<T>> Array<out T>.min(): T?
{\n    return minOrNull()\n}\n\n@Deprecated(\\"Use minOrNull instead.\",
ReplaceWith(\\"this.minOrNull()\")\n)\n@DeprecatedSinceKotlin(warningSince = \\"1.4\\", errorSince = \\"1.5\\",
hiddenSince = \\"1.6\\")\npublic fun ByteArray.min(): Byte? {\n    return minOrNull()\n}\n\n@Deprecated(\\"Use
minOrNull instead.\", ReplaceWith(\\"this.minOrNull()\")\n)\n@DeprecatedSinceKotlin(warningSince = \\"1.4\\",
errorSince = \\"1.5\\", hiddenSince = \\"1.6\\")\npublic fun ShortArray.min(): Short? {\n    return
minOrNull()\n}\n\n@Deprecated(\\"Use minOrNull instead.\",
ReplaceWith(\\"this.minOrNull()\")\n)\n@DeprecatedSinceKotlin(warningSince = \\"1.4\\", errorSince = \\"1.5\\",
hiddenSince = \\"1.6\\")\npublic fun IntArray.min(): Int? {\n    return minOrNull()\n}\n\n@Deprecated(\\"Use
minOrNull instead.\", ReplaceWith(\\"this.minOrNull()\")\n)\n@DeprecatedSinceKotlin(warningSince = \\"1.4\\",
errorSince = \\"1.5\\", hiddenSince
= \\"1.6\\")\npublic fun LongArray.min(): Long? {\n    return minOrNull()\n}\n\n@Deprecated(\\"Use minOrNull
instead.\", ReplaceWith(\\"this.minOrNull()\")\n)\n@DeprecatedSinceKotlin(warningSince = \\"1.4\\", errorSince =
\\"1.5\\", hiddenSince = \\"1.6\\")\npublic fun FloatArray.min(): Float? {\n    return
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ReplaceWith(\\"this.minOrNull()\")\n)\n@DeprecatedSinceKotlin(warningSince = \\"1.4\\", errorSince = \\"1.5\\",
hiddenSince = \\"1.6\\")\npublic fun DoubleArray.min(): Double? {\n    return
minOrNull()\n}\n\n@Deprecated(\\"Use minOrNull instead.\",
ReplaceWith(\\"this.minOrNull()\")\n)\n@DeprecatedSinceKotlin(warningSince = \\"1.4\\", errorSince = \\"1.5\\",
hiddenSince = \\"1.6\\")\npublic fun CharArray.min(): Char? {\n    return minOrNull()\n}\n\n@Deprecated(\\"Use
minByOrNull instead.\", ReplaceWith(\\"this.minByOrNull(selector)\")\n)\n@DeprecatedSinceKotlin(warningSince =
\\"1.4\\", errorSince = \\"1.5\\", hiddenSince = \\"1.6\\")\npublic inline fun <T,
R : Comparable<R>> Array<out T>.minBy(selector: (T) -> R): T? {\n    return
minByOrNull(selector)\n}\n\n@Deprecated(\\"Use minByOrNull instead.\",
ReplaceWith(\\"this.minByOrNull(selector)\")\n)\n@DeprecatedSinceKotlin(warningSince = \\"1.4\\", errorSince =
\\"1.5\\", hiddenSince = \\"1.6\\")\npublic inline fun <R : Comparable<R>> ByteArray.minBy(selector: (Byte) -> R):
Byte? {\n    return minByOrNull(selector)\n}\n\n@Deprecated(\\"Use minByOrNull instead.\",
ReplaceWith(\\"this.minByOrNull(selector)\")\n)\n@DeprecatedSinceKotlin(warningSince = \\"1.4\\", errorSince =
\\"1.5\\", hiddenSince = \\"1.6\\")\npublic inline fun <R : Comparable<R>> ShortArray.minBy(selector: (Short) -> R):
Short? {\n    return minByOrNull(selector)\n}\n\n@Deprecated(\\"Use minByOrNull instead.\",
ReplaceWith(\\"this.minByOrNull(selector)\")\n)\n@DeprecatedSinceKotlin(warningSince = \\"1.4\\", errorSince =
\\"1.5\\", hiddenSince = \\"1.6\\")\npublic inline fun <R : Comparable<R>> IntArray.minBy(selector: (Int) -> R): Int?
{\n    return minByOrNull(selector)\n}\n\n@Deprecated(\\"Use
minByOrNull instead.\", ReplaceWith(\\"this.minByOrNull(selector)\")\n)\n@DeprecatedSinceKotlin(warningSince =
\\"1.4\\", errorSince = \\"1.5\\", hiddenSince = \\"1.6\\")\npublic inline fun <R : Comparable<R>>
LongArray.minBy(selector: (Long) -> R): Long? {\n    return minByOrNull(selector)\n}\n\n@Deprecated(\\"Use
minByOrNull instead.\", ReplaceWith(\\"this.minByOrNull(selector)\")\n)\n@DeprecatedSinceKotlin(warningSince =
\\"1.4\\", errorSince = \\"1.5\\", hiddenSince = \\"1.6\\")\npublic inline fun <R : Comparable<R>>
FloatArray.minBy(selector: (Float) -> R): Float? {\n    return minByOrNull(selector)\n}\n\n@Deprecated(\\"Use
minByOrNull instead.\", ReplaceWith(\\"this.minByOrNull(selector)\")\n)\n@DeprecatedSinceKotlin(warningSince =
\\"1.4\\", errorSince = \\"1.5\\", hiddenSince = \\"1.6\\")\npublic inline fun <R : Comparable<R>>
DoubleArray.minBy(selector: (Double) -> R): Double? {\n    return
minByOrNull(selector)\n}\n\n@Deprecated(\\"Use minByOrNull instead.\",
ReplaceWith(\\"this.minByOrNull(selector)\")\n)\n@DeprecatedSinceKotlin(warningSince
= \\"1.4\\", errorSince = \\"1.5\\", hiddenSince = \\"1.6\\")\npublic inline fun <R : Comparable<R>>
BooleanArray.minBy(selector: (Boolean) -> R): Boolean? {\n    return

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minByOrNull(selector)\n}\n\n@Deprecated("Use minByOrNull instead."),
ReplaceWith("this.minByOrNull(selector)")\n\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince =
"1.5", hiddenSince = "1.6")\npublic inline fun <R : Comparable<R>> CharArray.minBy(selector: (Char) -> R):
Char? {\n    return minByOrNull(selector)\n}\n\n/**\n * Returns the first element yielding the smallest value of the
given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.minByOrNull\n * \n\n*\n\n@SinceKotlin("1.4")\npublic inline fun <T, R :
Comparable<R>> Array<out T>.minByOrNull(selector: (T) -> R): T? {\n    if (isEmpty()) return null\n    var
minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex
== 0) return minElem\n    var minValue = selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n
val v = selector(e)\n        if (minValue > v) {\n            minElem = e\n            minValue = v\n        }\n    }\n    return
minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there
are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n * \n\n*\n\n@SinceKotlin("1.4")\npublic inline fun <R : Comparable<R>> ByteArray.minByOrNull(selector: (Byte) ->
R): Byte? {\n    if (isEmpty()) return null\n    var minElem = this[0]\n    val lastIndex = this.lastIndex\n    if
(lastIndex == 0) return minElem\n    var minValue = selector(minElem)\n    for (i in 1..lastIndex) {\n        val e =
this[i]\n        val v = selector(e)\n        if (minValue > v) {\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the first element
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samples.collections.Collections.Aggregates.minByOrNull\n * \n\n*\n\n@SinceKotlin("1.4")\npublic inline fun <R :
Comparable<R>> ShortArray.minByOrNull(selector: (Short) -> R): Short? {\n    if (isEmpty()) return null\n    var
minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var minValue =
selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (minValue > v)
{\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the first
element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.minByOrNull\n * \n\n*\n\n@SinceKotlin("1.4")\npublic inline fun <R :
Comparable<R>> IntArray.minByOrNull(selector: (Int) -> R): Int? {\n    if (isEmpty()) return
null\n    var minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var
minValue = selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if
(minValue > v) {\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.minByOrNull\n * \n\n*\n\n@SinceKotlin("1.4")\npublic inline fun
<R : Comparable<R>> LongArray.minByOrNull(selector: (Long) -> R): Long? {\n    if (isEmpty()) return null\n    var
minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var minValue =
selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (minValue > v)
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given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.minByOrNull\n * \n\n*\n\n@SinceKotlin("1.4")\npublic inline fun <R :
Comparable<R>> FloatArray.minByOrNull(selector: (Float) -> R): Float? {\n    if (isEmpty()) return null\n    var
minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var minValue =
selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (minValue > v)
{\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the first
element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.minByOrNull\n * \n\n*\n\n@SinceKotlin("1.4")\npublic inline fun <R :
Comparable<R>> DoubleArray.minByOrNull(selector: (Double) -> R): Double? {\n    if (isEmpty()) return null\n    var
minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var minValue =
selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (minValue > v)
{\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the first
element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.minByOrNull\n * \n\n*/

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    minElem = e\n        minValue = v\n    }\n    return minElem\n}\n\n/**\n * Returns the first
element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.minByOrNull\n * \n * @SinceKotlin("1.4")\npublic inline fun <R :
Comparable<R>> BooleanArray.minByOrNull(selector: (Boolean) -> R): Boolean? {\n    if (isEmpty()) return
null\n    var minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var
minValue = selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (minValue > v) {\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if
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R): Char? {\n    if (isEmpty()) return null\n    var minElem = this[0]\n    val lastIndex = this.lastIndex\n    if
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this[i]\n        val v = selector(e)\n        if (minValue > v) {\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values
produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException
if the array is empty.\n\n * \n * @SinceKotlin("1.4")\n * @OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n * @OverloadResolution
ByLambdaReturnType\n * @kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.minOf(selector: (T) ->
Double): Double {\n    if (isEmpty()) throw NoSuchElementException()\n    var minValue = selector(this[0])\n    for
(i in 1..lastIndex) {\n        val v = selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return
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ByLambdaReturnType\n * @kotlin.internal.InlineOnly\npublic
inline fun ByteArray.minOf(selector: (Byte) -> Double): Double {\n    if (isEmpty()) throw
NoSuchElementException()\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =
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ByLambdaReturnType\n * @kotlin.internal.InlineOnly\npublic inline fun ShortArray.minOf(selector: (Short) ->
Double): Double {\n    if (isEmpty()) throw NoSuchElementException()\n    var minValue = selector(this[0])\n    for
(i in 1..lastIndex) {\n        val
v = selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the
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Double {\n    if (isEmpty()) throw NoSuchElementException()\n    var minValue = selector(this[0])\n    for (i in
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each element in the array.\n * \n * If any of values produced
by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the
array is empty.\n

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*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.minOf(selector: (Long) ->
Double): Double {\n    if (isEmpty()) throw NoSuchElementException()\n    var minValue = selector(this[0])\n    for
(i in 1..lastIndex) {\n        val v = selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun FloatArray.minOf(selector: (Float) -> Double): Double {\n    if (isEmpty()) throw
NoSuchElementException()\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =
selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest
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*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.minOf(selector: (Double) ->
Double): Double {\n    if (isEmpty()) throw NoSuchElementException()\n    var minValue = selector(this[0])\n    for
(i in 1..lastIndex) {\n        val v = selector(this[i])\n
        minValue = minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all
values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by
[selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is
empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.minOf(selector: (Boolean) ->
Double): Double {\n    if (isEmpty()) throw NoSuchElementException()\n    var minValue = selector(this[0])\n    for
(i in 1..lastIndex) {\n        val v = selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.minOf(selector: (Char) ->
Double): Double {\n    if (isEmpty()) throw NoSuchElementException()\n    var minValue = selector(this[0])\n    for
(i in 1..lastIndex) {\n        val v = selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <T> Array<out T>.minOf(selector: (T) -> Float): Float {\n    if (isEmpty()) throw
NoSuchElementException()\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =
selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest
value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of
values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.minOf(selector: (Byte) -> Float):

```

```

Float {
    if (isEmpty()) throw NoSuchElementException()
    var minValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        minValue = minOf(minValue, v)
    }
    return minValue
}

/** Returns the smallest value among all values produced by [selector] function applied to each element in the array. If any of values produced by [selector] function is `NaN`, the returned result is `NaN`. @throws NoSuchElementException if the array is empty.

@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.internal.InlineOnly
public inline fun ShortArray.minOf(selector: (Short) -> Float): Float {
    if (isEmpty()) throw NoSuchElementException()
    var minValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        minValue = minOf(minValue, v)
    }
    return minValue
}

/** Returns the smallest value among all values produced by [selector] function applied to each element in the array. If any of values produced by [selector] function is `NaN`, the returned result is `NaN`. @throws NoSuchElementException if the array is empty.

@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.internal.InlineOnly
public inline fun IntArray.minOf(selector: (Int) -> Float): Float {
    if (isEmpty()) throw NoSuchElementException()
    var minValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        minValue = minOf(minValue, v)
    }
    return minValue
}

/** Returns the smallest value among all values produced by [selector] function applied to each element in the array. If any of values produced by [selector] function is `NaN`, the returned result is `NaN`. @throws NoSuchElementException if the array is empty.

@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.internal.InlineOnly
public inline fun LongArray.minOf(selector: (Long) -> Float): Float {
    if (isEmpty()) throw NoSuchElementException()
    var minValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        minValue = minOf(minValue, v)
    }
    return minValue
}

/** Returns the smallest value among all values produced by [selector] function applied to each element in the array. If any of values produced by [selector] function is `NaN`, the returned result is `NaN`. @throws NoSuchElementException if the array is empty.

@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.internal.InlineOnly
public inline fun FloatArray.minOf(selector: (Float) -> Float): Float {
    if (isEmpty()) throw NoSuchElementException()
    var minValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        minValue = minOf(minValue, v)
    }
    return minValue
}

/** Returns the smallest value among all values produced by [selector] function applied to each element in the array. If any of values produced by [selector] function is `NaN`, the returned result is `NaN`. @throws NoSuchElementException if the array is empty.

@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.internal.InlineOnly
public inline fun DoubleArray.minOf(selector: (Double) -> Float): Float {
    if (isEmpty()) throw NoSuchElementException()
    var minValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        minValue = minOf(minValue, v)
    }
    return minValue
}

/** Returns the smallest value among all values produced by [selector] function applied to each element in the array. If any of values produced by [selector] function is `NaN`, the returned result is `NaN`. @throws NoSuchElementException if the array is empty.

```

```

`NaN`. \n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun CharArray.minOf(selector: (Char) -> Float): Float {\n if (isEmpty()) throw
NoSuchElementException()\n var minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v =
selector(this[i])\n minValue = minOf(minValue, v)\n }\n return minValue}\n\n/**\n * Returns the smallest
value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Array<out
T>.minOf(selector: (T) -> R): R {\n if (isEmpty()) throw NoSuchElementException()\n var minValue =
selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if (minValue > v) {\n
minValue = v\n }\n }\n return minValue}\n\n/**\n * Returns the
smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n *
@throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
ByteArray.minOf(selector: (Byte) -> R): R {\n if (isEmpty()) throw NoSuchElementException()\n var minValue
= selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if (minValue > v) {\n
minValue = v\n }\n }\n return minValue}\n\n/**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the
array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <R : Comparable<R>> ShortArray.minOf(selector: (Short) -> R): R {\n if (isEmpty()) throw
NoSuchElementException()\n var minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v =
selector(this[i])\n if (minValue > v) {\n minValue = v\n }\n }\n return minValue}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the
array.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
IntArray.minOf(selector: (Int) -> R): R {\n if (isEmpty()) throw NoSuchElementException()\n var minValue =
selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if (minValue > v) {\n
minValue = v\n }\n }\n return minValue}\n\n/**\n * Returns the smallest value among all values produced by [selector]
function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is
empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
LongArray.minOf(selector: (Long) -> R): R {\n if (isEmpty()) throw NoSuchElementException()\n var
minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if (minValue > v) {\n
minValue = v\n }\n }\n return minValue}\n\n/**\n * Returns the smallest value among all values
produced by [selector] function\n * applied to each element in the array.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <R : Comparable<R>> FloatArray.minOf(selector: (Float) -> R): R {\n if (isEmpty()) throw
NoSuchElementException()\n var minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v =

```

```

selector(this[i])\n    if (minValue > v) {\n        minValue = v\n    }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>\nDoubleArray.minOf(selector: (Double) -> R): R {\n    if (isEmpty()) throw NoSuchElementException()\n    var\n    minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if (minValue > v) {\n            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n * Returns the\n * smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>\nBooleanArray.minOf(selector: (Boolean) -> R): R {\n    if (isEmpty()) throw NoSuchElementException()\n    var\n    minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if (minValue > v) {\n            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values\n * produced by [selector] function\n * applied to each element in the array.\n * \n * @throws\n * NoSuchElementException if the array is empty.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic\n    inline fun <R : Comparable<R>> CharArray.minOf(selector: (Char) -> R): R {\n    if (isEmpty()) throw\n    NoSuchElementException()\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =\n        selector(this[i])\n        if (minValue > v) {\n            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array\n * or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned\n * result is `NaN`.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.minOfOrNull(selector:\n(T) -> Double): Double? {\n    if (isEmpty()) return\n    null\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        minValue\n        = minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values\n * produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If\n * any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.minOfOrNull(selector: (Byte) ->\nDouble): Double? {\n    if (isEmpty()) return null\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns\n * the smallest value among all values produced by [selector] function\n * applied to each element\n * in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the\n * returned result is `NaN`.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.minOfOrNull(selector: (Short) -\n> Double): Double? {\n    if (isEmpty()) return null\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns\n * the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null`\n * if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is\n * `NaN`.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic

```



```

inline fun IntArray.minOrNull(selector: (Int) -> Double): Double? {
    if (isEmpty()) return null
    var minValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        minValue = minOf(minValue, v)
    }
    return minValue
}

```

\* Returns the smallest value among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.  
 \* If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.

```

@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.internal.InlineOnly
public inline fun LongArray.minOrNull(selector: (Long) -> Double): Double? {
    if (isEmpty()) return null
    var minValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        minValue = minOf(minValue, v)
    }
    return minValue
}

```

\* Returns the smallest value among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.  
 \* If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.

```

@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.internal.InlineOnly
public inline fun FloatArray.minOrNull(selector: (Float) -> Double): Double? {
    if (isEmpty()) return null
    var minValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        minValue = minOf(minValue, v)
    }
    return minValue
}

```

\* Returns the smallest value among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.  
 \* If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.

```

@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.internal.InlineOnly
public inline fun DoubleArray.minOrNull(selector: (Double) -> Double): Double? {
    if (isEmpty()) return null
    var minValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        minValue = minOf(minValue, v)
    }
    return minValue
}

```

\* Returns the smallest value among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.  
 \* If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.

```

@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.internal.InlineOnly
public inline fun BooleanArray.minOrNull(selector: (Boolean) -> Double): Double? {
    if (isEmpty()) return null
    var minValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        minValue = minOf(minValue, v)
    }
    return minValue
}

```

\* Returns the smallest value among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.  
 \* If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.

```

@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.internal.InlineOnly
public inline fun CharArray.minOrNull(selector: (Char) -> Double): Double? {
    if (isEmpty()) return null
    var minValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        minValue = minOf(minValue, v)
    }
    return minValue
}

```

\* Returns the smallest value among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.  
 \* If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.

```

@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.internal.InlineOnly
public inline fun <T> Array<out T>.minOrNull(selector: (T) -> Float): Float? {
    if (isEmpty()) return null
    var minValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        minValue = minOf(minValue, v)
    }
    return minValue
}

```

\* Returns the smallest value among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.  
 \* If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.

```

@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.internal.InlineOnly
public inline fun <T> Array<out T>.minOrNull(selector: (T) -> Double): Double? {
    if (isEmpty()) return null
    var minValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        minValue = minOf(minValue, v)
    }
    return minValue
}

```

\* Returns the smallest value among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.  
 \* If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.

```

ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.minOrNull(selector:
(Byte) -> Float): Float? {\n if (isEmpty()) return null\n var minValue = selector(this[0])\n for (i in
1..lastIndex) {\n val v = selector(this[i])\n minValue = minOf(minValue, v)\n }\n return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function
is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.minOrNull(selector: (Short) -
> Float): Float? {\n if (isEmpty()) return null\n var minValue = selector(this[0])\n for (i in 1..lastIndex) {\n
val v = selector(this[i])\n minValue = minOf(minValue, v)\n }\n return minValue\n}\n\n/**\n * Returns the
smallest value among
all values produced by [selector] function\n * applied to each element in the array or `null` if there are no
elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.minOrNull(selector: (Int) ->
Float): Float? {\n if (isEmpty()) return null\n var minValue = selector(this[0])\n for (i in 1..lastIndex) {\n
val v = selector(this[i])\n minValue = minOf(minValue, v)\n }\n return minValue\n}\n\n/**\n * Returns the
smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if
there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun LongArray.minOrNull(selector: (Long) -> Float): Float? {\n if (isEmpty()) return null\n var
minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n minValue =
minOf(minValue, v)\n }\n return minValue\n}\n\n/**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of
values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.minOrNull(selector: (Float) ->
Float): Float? {\n if (isEmpty()) return null\n var minValue = selector(this[0])\n for (i in 1..lastIndex) {\n
val v = selector(this[i])\n
minValue = minOf(minValue, v)\n }\n return minValue\n}\n\n/**\n * Returns the smallest value among all
values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n *
*\n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.minOrNull(selector:
(Double) -> Float): Float? {\n if (isEmpty()) return null\n var minValue = selector(this[0])\n for (i in
1..lastIndex) {\n val v = selector(this[i])\n minValue = minOf(minValue, v)\n }\n return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function
is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.minOrNull(selector:
(Boolean) -> Float): Float? {\n if (isEmpty()) return null\n var minValue = selector(this[0])\n for (i in
1..lastIndex) {\n val v = selector(this[i])\n minValue = minOf(minValue, v)\n }\n return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function
is `NaN`, the returned result is `NaN`.\n

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*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.minOfOrNull(selector: (Char) ->
Float): Float? {\n    if (isEmpty())
return null\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n
minValue = minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all
values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Array<out
T>.minOfOrNull(selector: (T) -> R): R? {\n    if (isEmpty()) return null\n    var minValue = selector(this[0])\n
for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if (minValue > v) {\n            minValue = v\n
        }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n *
applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
ByteArray.minOfOrNull(selector: (Byte) -> R): R? {\n    if (isEmpty()) return null\n    var minValue =
selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if (minValue > v) {\n
minValue = v\n    }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
ShortArray.minOfOrNull(selector: (Short) -> R): R? {\n    if (isEmpty()) return null\n    var minValue =
selector(this[0])\n    for (i in 1..lastIndex)
{\n        val v = selector(this[i])\n        if (minValue > v) {\n            minValue = v\n        }\n    }\n    return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
IntArray.minOfOrNull(selector: (Int) -> R): R? {\n    if (isEmpty()) return null\n    var minValue =
selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if (minValue > v) {\n
minValue = v\n    }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <R : Comparable<R>> LongArray.minOfOrNull(selector: (Long) -> R): R? {\n    if (isEmpty()) return
null\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n
if (minValue > v) {\n            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value
among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no
elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
FloatArray.minOfOrNull(selector: (Float) -> R): R? {\n    if (isEmpty()) return null\n    var minValue =
selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if (minValue > v) {\n
minValue = v\n    }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values
produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
DoubleArray.minOfOrNull(selector: (Double) -> R): R? {\n    if (isEmpty()) return null\n    var minValue =
selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if (minValue > v) {\n

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minValue = v\n    }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <R : Comparable<R>> BooleanArray.minOrNull(selector: (Boolean) -> R): R? {\n    if (isEmpty())
return null\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if
(minValue > v) {\n            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value
among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no
elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
CharArray.minOrNull(selector: (Char) -> R): R? {\n    if (isEmpty()) return null\n    var minValue =
selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if (minValue > v) {\n
minValue = v\n        }\n    }\n    return
minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values
produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if
the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Array<out
T>.minOfWith(comparator: Comparator<in R>, selector: (T) -> R): R {\n    if (isEmpty()) throw
NoSuchElementException()\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =
selector(this[i])\n        if (comparator.compare(minValue, v) > 0) {\n            minValue = v\n        }\n    }\n    return
minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values
produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if
the array
is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> ByteArray.minOfWith(comparator:
Comparator<in R>, selector: (Byte) -> R): R {\n    if (isEmpty()) throw NoSuchElementException()\n    var
minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if
(comparator.compare(minValue, v) > 0) {\n            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> ShortArray.minOfWith(comparator:
Comparator<in
R>, selector: (Short) -> R): R {\n    if (isEmpty()) throw NoSuchElementException()\n    var minValue =
selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if (comparator.compare(minValue,
v) > 0) {\n            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value
according to the provided [comparator]\n * among all values produced by [selector] function applied to each
element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> IntArray.minOfWith(comparator:
Comparator<in R>, selector: (Int) -> R): R {\n    if (isEmpty()) throw NoSuchElementException()\n    var minValue
= selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if (comparator.compare(minValue,
v)
> 0) {\n            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value according
to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the

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array.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> LongArray.minOfWith(comparator:
Comparator<in R>, selector: (Long) -> R): R {\n if (isEmpty()) throw NoSuchElementException()\n var
minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if
(comparator.compare(minValue, v) > 0) {\n minValue = v\n }\n }\n return minValue\n}\n\n/**\n *
Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the
array.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> FloatArray.minOfWith(comparator:
Comparator<in R>, selector: (Float) -> R): R {\n if (isEmpty()) throw NoSuchElementException()\n var
minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if
(comparator.compare(minValue, v) > 0) {\n minValue = v\n }\n }\n return minValue\n}\n\n/**\n *
Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <R> DoubleArray.minOfWith(comparator: Comparator<in R>, selector: (Double) -> R): R {\n if
(isEmpty()) throw NoSuchElementException()\n var minValue = selector(this[0])\n for (i in 1..lastIndex) {\n
val v = selector(this[i])\n if (comparator.compare(minValue, v) > 0) {\n minValue = v\n }\n }\n
return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all
values produced by [selector] function applied to each element in the array.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> BooleanArray.minOfWith(comparator:
Comparator<in R>, selector: (Boolean) -> R): R {\n if (isEmpty()) throw NoSuchElementException()\n var
minValue = selector(this[0])\n for (i in 1..lastIndex) {\n
val v = selector(this[i])\n if (comparator.compare(minValue, v) > 0) {\n minValue = v\n }\n }\n
return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all
values produced by [selector] function applied to each element in the array.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharArray.minOfWith(comparator:
Comparator<in R>, selector: (Char) -> R): R {\n if (isEmpty()) throw NoSuchElementException()\n var
minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if
(comparator.compare(minValue, v) > 0) {\n minValue = v\n }\n }\n return minValue\n}\n\n/**\n *
Returns the smallest value according to the provided [comparator]\n * among
all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Array<out
T>.minOfWithOrNull(comparator: Comparator<in R>, selector: (T) -> R): R? {\n if (isEmpty()) return null\n
var minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if
(comparator.compare(minValue, v) > 0) {\n minValue = v\n }\n }\n return minValue\n}\n\n/**\n *
Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic

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inline fun <R> ByteArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Byte) -> R): R? {\n  if
(isEmpty()) return null\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v =
selector(this[i])\n    if (comparator.compare(minValue, v) > 0) {\n      minValue = v\n    }\n  }\n  return
minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values
produced by [selector] function applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
ShortArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Short) -> R): R? {\n  if (isEmpty())
return null\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if
(comparator.compare(minValue,
v) > 0) {\n      minValue = v\n    }\n  }\n  return minValue\n}\n\n/**\n * Returns the smallest value
according to the provided [comparator]\n * among all values produced by [selector] function applied to each
element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
IntArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Int) -> R): R? {\n  if (isEmpty()) return
null\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if
(comparator.compare(minValue, v) > 0) {\n      minValue = v\n    }\n  }\n  return minValue\n}\n\n/**\n *
Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array or `null` if there
are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
LongArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Long) -> R): R? {\n  if (isEmpty()) return
null\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if
(comparator.compare(minValue, v) > 0) {\n      minValue = v\n    }\n  }\n  return minValue\n}\n\n/**\n *
Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
FloatArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Float)
-> R): R? {\n  if (isEmpty()) return null\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v
= selector(this[i])\n    if (comparator.compare(minValue, v) > 0) {\n      minValue = v\n    }\n  }\n  return
minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values
produced by [selector] function applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
DoubleArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Double) -> R): R? {\n  if (isEmpty())
return null\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if
(comparator.compare(minValue, v) > 0) {\n      minValue = v\n    }\n  }\n  return minValue\n}\n\n/**\n *
Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
BooleanArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Boolean) -> R): R? {\n  if (isEmpty())
return null\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if
(comparator.compare(minValue, v) > 0) {\n      minValue = v\n    }\n  }\n  return minValue\n}\n\n/**\n *
Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector]

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function applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <R> CharArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Char) -> R): R? {\n if
(isEmpty()) return null\n var minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v =
selector(this[i])\n if (comparator.compare(minValue, v) > 0) {\n minValue = v\n }\n }\n return
minValue\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements is
`NaN` returns `NaN`.\n */\n*\n@SinceKotlin("1.4")\npublic fun Array<out Double>.minOrNull(): Double? {\n if
(isEmpty()) return null\n var min = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n min = minOf(min,
e)\n }\n return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any
of elements is `NaN` returns `NaN`.\n */\n*\n@SinceKotlin("1.4")\npublic fun Array<out
Float>.minOrNull(): Float? {\n if (isEmpty()) return null\n var min = this[0]\n for (i in 1..lastIndex) {\n
val e = this[i]\n min = minOf(min, e)\n }\n return min\n}\n\n/**\n * Returns the smallest element or `null` if
there are no elements.\n */\n*\n@SinceKotlin("1.4")\npublic fun <T : Comparable<T>> Array<out T>.minOrNull():
T? {\n if (isEmpty()) return null\n var min = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (min
> e) min = e\n }\n return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n
*/\n*\n@SinceKotlin("1.4")\npublic fun ByteArray.minOrNull(): Byte? {\n if (isEmpty()) return null\n var min =
this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (min > e) min = e\n }\n return min\n}\n\n/**\n *
Returns the smallest element or `null` if there are no elements.\n */\n*\n@SinceKotlin("1.4")\npublic fun
ShortArray.minOrNull(): Short? {\n
if (isEmpty()) return null\n var min = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (min > e)
min = e\n }\n return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n
*/\n*\n@SinceKotlin("1.4")\npublic fun IntArray.minOrNull(): Int? {\n if (isEmpty()) return null\n var min =
this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (min > e) min = e\n }\n return min\n}\n\n/**\n *
Returns the smallest element or `null` if there are no elements.\n */\n*\n@SinceKotlin("1.4")\npublic fun
LongArray.minOrNull(): Long? {\n if (isEmpty()) return null\n var min = this[0]\n for (i in 1..lastIndex) {\n
val e = this[i]\n if (min > e) min = e\n }\n return min\n}\n\n/**\n * Returns the smallest element or `null`
if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n*\n@SinceKotlin("1.4")\npublic fun
FloatArray.minOrNull(): Float? {\n if
(isEmpty()) return null\n var min = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n min =
minOf(min, e)\n }\n return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n
*/\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n*\n@SinceKotlin("1.4")\npublic fun DoubleArray.minOrNull():
Double? {\n if (isEmpty()) return null\n var min = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n
min = minOf(min, e)\n }\n return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no
elements.\n */\n*\n@SinceKotlin("1.4")\npublic fun CharArray.minOrNull(): Char? {\n if (isEmpty()) return null\n
var min = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (min > e) min = e\n }\n return
min\n}\n\n@Deprecated("Use minWithOrNull instead.")\nReplaceWith("this.minWithOrNull(comparator)")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince
= "1.5",
hiddenSince = "1.6")\npublic fun <T> Array<out T>.minWith(comparator: Comparator<in T>): T? {\n return
minWithOrNull(comparator)\n}\n\n@Deprecated("Use minWithOrNull instead.")\nReplaceWith("this.minWithOrNull(comparator)")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince
= "1.5", hiddenSince = "1.6")\npublic fun ByteArray.minWith(comparator: Comparator<in Byte>): Byte? {\n
return minWithOrNull(comparator)\n}\n\n@Deprecated("Use minWithOrNull instead.")\nReplaceWith("this.minWithOrNull(comparator)")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince
= "1.5", hiddenSince = "1.6")\npublic fun ShortArray.minWith(comparator: Comparator<in Short>): Short? {\n
return minWithOrNull(comparator)\n}\n\n@Deprecated("Use minWithOrNull instead.")\nReplaceWith("this.minWithOrNull(comparator)")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince

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= \"1.5\", hiddenSince = \"1.6\")\npublic fun IntArray.minWith(comparator: Comparator<in Int>):
Int? {\n  return minWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minWithOrNull instead.\",
ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince
= \"1.5\", hiddenSince = \"1.6\")\npublic fun LongArray.minWith(comparator: Comparator<in Long>): Long? {\n
return minWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minWithOrNull instead.\",
ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince
= \"1.5\", hiddenSince = \"1.6\")\npublic fun FloatArray.minWith(comparator: Comparator<in Float>): Float? {\n
return minWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minWithOrNull instead.\",
ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince
= \"1.5\", hiddenSince = \"1.6\")\npublic fun DoubleArray.minWith(comparator: Comparator<in Double>): Double?
{\n  return minWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minWithOrNull
instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\",
errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun BooleanArray.minWith(comparator: Comparator<in
Boolean>): Boolean? {\n  return minWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minWithOrNull
instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\",
errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun CharArray.minWith(comparator: Comparator<in Char>):
Char? {\n  return minWithOrNull(comparator)\n}\n\n/**\n * Returns the first element having the smallest value
according to the provided [comparator] or `null` if there are no elements.\n *\n */\n@SinceKotlin(\"1.4\")\npublic fun
<T> Array<out T>.minWithOrNull(comparator: Comparator<in T>): T? {\n  if (isEmpty()) return null\n  var min
= this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if (comparator.compare(min, e) > 0) min = e\n  }\n
return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator]
or `null` if there are no elements.\n *\n */\n@SinceKotlin(\"1.4\")\npublic fun ByteArray.minWithOrNull(comparator:
Comparator<in Byte>): Byte? {\n  if (isEmpty()) return null\n  var min = this[0]\n  for (i in 1..lastIndex) {\n
val e = this[i]\n    if (comparator.compare(min, e) > 0) min = e\n  }\n  return min\n}\n\n/**\n * Returns the first
element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n
*\n */\n@SinceKotlin(\"1.4\")\npublic fun ShortArray.minWithOrNull(comparator: Comparator<in Short>): Short? {\n
if (isEmpty()) return null\n  var min = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if
(comparator.compare(min, e) > 0) min = e\n  }\n  return min\n}\n\n/**\n * Returns the first element having the
smallest value according to the provided [comparator] or `null` if
there are no elements.\n *\n */\n@SinceKotlin(\"1.4\")\npublic fun IntArray.minWithOrNull(comparator:
Comparator<in Int>): Int? {\n  if (isEmpty()) return null\n  var min = this[0]\n  for (i in 1..lastIndex) {\n
val e = this[i]\n    if (comparator.compare(min, e) > 0) min = e\n  }\n  return min\n}\n\n/**\n * Returns the first
element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n
*\n */\n@SinceKotlin(\"1.4\")\npublic fun LongArray.minWithOrNull(comparator: Comparator<in Long>): Long? {\n
if (isEmpty()) return null\n  var min = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if
(comparator.compare(min, e) > 0) min = e\n  }\n  return min\n}\n\n/**\n * Returns the first element having the
smallest value according to the provided [comparator] or `null` if there are no elements.\n
*\n */\n@SinceKotlin(\"1.4\")\npublic fun FloatArray.minWithOrNull(comparator: Comparator<in Float>): Float? {\n
if (isEmpty()) return null\n  var min = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if
(comparator.compare(min, e) > 0) min = e\n  }\n  return min\n}\n\n/**\n * Returns the first element having the
smallest value according to the provided [comparator] or `null` if there are no elements.\n
*\n */\n@SinceKotlin(\"1.4\")\npublic fun DoubleArray.minWithOrNull(comparator: Comparator<in Double>):
Double? {\n  if (isEmpty()) return null\n  var min = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n
if (comparator.compare(min, e) > 0) min = e\n  }\n  return min\n}\n\n/**\n * Returns the first element having the
smallest value according to the provided [comparator] or `null` if there are no elements.\n
*\n */\n@SinceKotlin(\"1.4\")\npublic fun BooleanArray.minWithOrNull(comparator: Comparator<in Boolean>):
Boolean? {\n  if (isEmpty()) return null\n  var min = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n

```



```

if (comparator.compare(min, e) > 0) min = e\n    }\n    return min\n}\n\n/**\n * Returns the first element having the
smallest value according to the provided [comparator] or `null` if there are no elements.\n
*\n\n@SinceKotlin("1.4")\npublic fun CharArray.minWithOrNull(comparator: Comparator<in Char>): Char? {\n
if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if
(comparator.compare(min, e) > 0) min = e\n    }\n    return min\n}\n\n/**\n * Returns `true` if the array has no
elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n *\npublic fun <T> Array<out
T>.none(): Boolean {\n    return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n *
@sample samples.collections.Collections.Aggregates.none\n *\npublic fun ByteArray.none(): Boolean {\n    return
isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.none\n\npublic fun ShortArray.none(): Boolean {\n    return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no
elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n *\npublic fun IntArray.none():
Boolean {\n    return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.none\n *\npublic fun LongArray.none(): Boolean {\n    return
isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.none\n *\npublic fun FloatArray.none(): Boolean {\n    return
isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.none\n *\npublic fun DoubleArray.none(): Boolean {\n    return
isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.none\n\npublic fun BooleanArray.none():
Boolean {\n    return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.none\n *\npublic fun CharArray.none(): Boolean {\n    return
isEmpty()\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n *\npublic inline fun <T> Array<out
T>.none(predicate: (T) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return false\n    return
true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n *\npublic inline fun ByteArray.none(predicate:
(Byte) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return false\n    return
true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n\npublic inline fun ShortArray.none(predicate: (Short) -> Boolean): Boolean {\n    for (element in this) if
(predicate(element)) return false\n    return true\n}\n\n/**\n * Returns `true` if no elements match the given
[predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n *\npublic inline fun
IntArray.none(predicate: (Int) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return false\n
return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n *\npublic inline fun LongArray.none(predicate:
(Long) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return false\n    return
true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n *\npublic inline fun FloatArray.none(predicate:
(Float)
-> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return false\n    return true\n}\n\n/**\n *
Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n *\npublic inline fun DoubleArray.none(predicate:
(Double) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return false\n    return
true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n *\npublic inline fun
BooleanArray.none(predicate: (Boolean) -> Boolean): Boolean {\n    for (element in this) if (predicate(element))
return false\n    return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample

```

```

samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun CharArray.none(predicate:
(Char) -> Boolean): Boolean {\n    for (element in this)
    if (predicate(element)) return false\n    return true\n}\n\n/**\n * Performs the given [action] on each element and
returns the array itself afterwards.\n */\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <T>
Array<out T>.onEach(action: (T) -> Unit): Array<out T> {\n    return apply { for (element in this) action(element)
}\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n
*/\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.onEach(action: (Byte) ->
Unit): ByteArray {\n    return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given
[action] on each element and returns the array itself afterwards.\n
*/\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.onEach(action: (Short) ->
Unit): ShortArray {\n    return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given
[action] on each element and returns
the array itself afterwards.\n */\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun
IntArray.onEach(action: (Int) -> Unit): IntArray {\n    return apply { for (element in this) action(element)
}\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n
*/\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.onEach(action: (Long) ->
Unit): LongArray {\n    return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given
[action] on each element and returns the array itself afterwards.\n
*/\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.onEach(action: (Float) ->
Unit): FloatArray {\n    return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given
[action] on each element and returns the array itself afterwards.\n
*/\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.onEach(action:
(Double) -> Unit): DoubleArray {\n    return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs
the given [action] on each element and returns the array itself afterwards.\n
*/\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.onEach(action: (Boolean)
-> Unit): BooleanArray {\n    return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given
[action] on each element and returns the array itself afterwards.\n
*/\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.onEach(action: (Char) ->
Unit): CharArray {\n    return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given
[action] on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n *
@param [action] function that takes the index of an element and the element itself\n * and performs the action on
the element.\n */\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic
inline fun <T> Array<out T>.onEachIndexed(action: (index: Int, T) -> Unit): Array<out T> {\n    return apply {
forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index
with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an
element and the element itself\n * and performs the action on the element.\n
*/\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.onEachIndexed(action:
(index: Int, Byte) -> Unit): ByteArray {\n    return apply { forEachIndexed(action) }\n}\n\n/**\n * Performs the
given [action] on each element, providing sequential index with the element,\n * and returns the array itself
afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs
the action on the element.\n */\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun
ShortArray.onEachIndexed(action:
(index: Int, Short) -> Unit): ShortArray {\n    return apply { forEachIndexed(action) }\n}\n\n/**\n * Performs the
given [action] on each element, providing sequential index with the element,\n * and returns the array itself
afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs
the action on the element.\n */\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun
IntArray.onEachIndexed(action: (index: Int, Int) -> Unit): IntArray {\n    return apply { forEachIndexed(action)
}\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and

```

returns the array itself afterwards.

```

    * @param [action] function that takes the index of an element and the element
    itself
    * and performs the action on the element.
    *
    * @since Kotlin("1.4")
    * @kotlin.internal.InlineOnly
    * @public
    inline fun LongArray.onEachIndexed(action: (index: Int, Long) -> Unit):
    LongArray {
        return apply {
            forEachIndexed(action)
        }
    }
    *
    * Performs the given [action] on each
    element, providing sequential index with the element,
    * and returns the array itself afterwards.
    * @param
    [action] function that takes the index of an element and the element itself
    * and performs the action on the
    element.
    *
    * @since Kotlin("1.4")
    * @kotlin.internal.InlineOnly
    * @public
    inline fun
    FloatArray.onEachIndexed(action: (index: Int, Float) -> Unit): FloatArray {
        return apply {
            forEachIndexed(action)
        }
    }
    *
    * Performs the given [action] on each element, providing sequential index
    with the element,
    * and returns the array itself afterwards.
    * @param [action] function that takes the index of an
    element and the element itself
    * and performs the action on the element.
    *
    * @since Kotlin("1.4")
    * @kotlin.internal.InlineOnly
    * @public
    inline fun DoubleArray.onEachIndexed(action:
    (index: Int, Double) -> Unit): DoubleArray {
        return apply {
            forEachIndexed(action)
        }
    }
    *
    * Performs the given [action] on each element, providing sequential index with the element,
    * and
    returns the array itself afterwards.
    * @param [action] function that takes the index of an element and the element
    itself
    * and performs the action on the element.
    *
    * @since Kotlin("1.4")
    * @kotlin.internal.InlineOnly
    * @public
    inline fun BooleanArray.onEachIndexed(action: (index: Int, Boolean) -> Unit): BooleanArray {
        return apply {
            forEachIndexed(action)
        }
    }
    *
    * Performs the given [action] on each element, providing sequential index
    with the element,
    * and returns the array itself afterwards.
    * @param [action] function that takes the index of an
    element and the element itself
    * and performs the action on the element.
    *
    * @since Kotlin("1.4")
    * @kotlin.internal.InlineOnly
    * @public
    inline fun CharArray.onEachIndexed(action:
    (index: Int, Char) -> Unit): CharArray {
        return apply {
            forEachIndexed(action)
        }
    }
    *
    * Accumulates
    value starting with the first element and applying [operation] from left to right
    * to current accumulator value and
    each element.
    *
    * Throws an exception if this array is empty. If the array can be empty in an expected way,
    *
    * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.
    *
    * @param [operation] function
    that takes current accumulator value and an element,
    * and calculates the next accumulator value.
    *
    * @sample samples.collections.Collections.Aggregates.reduce
    *
    * @public
    inline fun <S, T : S> Array<out
    T>.reduce(operation: (acc: S, T) -> S): S {
        if (isEmpty())
            throw UnsupportedOperationException("Empty
            array can't be reduced.")
        var accumulator: S = this[0]
        for (index in 1..lastIndex) {
            accumulator =
            operation(accumulator, this[index])
        }
        return accumulator
    }
    *
    * Accumulates value starting with the
    first element and applying [operation] from left to right
    * to current accumulator
    value and each element.
    *
    * Throws an exception if this array is empty. If the array can be empty in an
    expected way,
    * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.
    *
    * @param
    [operation] function that takes current accumulator value and an element,
    * and calculates the next accumulator
    value.
    *
    * @sample samples.collections.Collections.Aggregates.reduce
    *
    * @public
    inline fun
    ByteArray.reduce(operation: (acc: Byte, Byte) -> Byte): Byte {
        if (isEmpty())
            throw
            UnsupportedOperationException("Empty array can't be reduced.")
        var accumulator = this[0]
        for (index in
            1..lastIndex) {
            accumulator = operation(accumulator, this[index])
        }
        return accumulator
    }
    *
    * Accumulates value starting with the first element and applying [operation] from left to right
    * to current
    accumulator value and each element.
    *
    * Throws an exception if this array is empty. If the array can be empty
    in
    an expected way,
    * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.
    *
    * @param
    [operation] function that takes current accumulator value and an element,
    * and calculates the next
    accumulator value.
    *
    * @sample samples.collections.Collections.Aggregates.reduce
    *
    * @public
    inline fun
    ShortArray.reduce(operation: (acc: Short, Short) -> Short): Short {
        if (isEmpty())
            throw
            UnsupportedOperationException("Empty array can't be reduced.")
        var accumulator = this[0]
        for (index in
            1..lastIndex) {
            accumulator = operation(accumulator, this[index])
        }
        return accumulator
    }
    *
    * Accumulates value starting with the first element and applying [operation] from left to right
    * to current

```

accumulator value and each element. Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceOrNull] instead. It returns `null` when its receiver is empty.

@param [operation] function that takes current accumulator value and an element and calculates the next accumulator value.

```

@sample samples.collections.Collections.Aggregates.reduce
public inline fun
IntArray.reduce(operation: (acc: Int, Int) -> Int): Int {
    if (isEmpty()) throw
    UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = this[0]
    for (index in 1..lastIndex) {
        accumulator = operation(accumulator, this[index])
    }
    return accumulator
}

```

Accumulates value starting with the first element and applying [operation] from left to right to current accumulator value and each element. Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceOrNull] instead. It returns `null` when its receiver is empty.

@param [operation] function that takes current accumulator value and an element and calculates the next accumulator value.

```

@sample samples.collections.Collections.Aggregates.reduce
public inline fun
LongArray.reduce(operation: (acc: Long, Long) -> Long): Long {
    if (isEmpty()) throw
    UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = this[0]
    for (index in 1..lastIndex) {
        accumulator = operation(accumulator, this[index])
    }
    return accumulator
}

```

Accumulates value starting with the first element and applying [operation] from left to right to current accumulator value and each element. Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceOrNull] instead. It returns `null` when its receiver is empty.

@param [operation] function that takes current accumulator value and an element and calculates the next accumulator value.

```

@sample samples.collections.Collections.Aggregates.reduce
public inline fun
FloatArray.reduce(operation: (acc: Float, Float) -> Float): Float {
    if (isEmpty()) throw
    UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = this[0]
    for (index in 1..lastIndex) {
        accumulator = operation(accumulator, this[index])
    }
    return accumulator
}

```

Accumulates value starting with the first element and applying [operation] from left to right to current accumulator value and each element. Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceOrNull] instead. It returns `null` when its receiver is empty.

@param [operation] function that takes current accumulator value and an element and calculates the next accumulator value.

```

@sample samples.collections.Collections.Aggregates.reduce
public inline fun
DoubleArray.reduce(operation: (acc: Double, Double) -> Double): Double {
    if (isEmpty()) throw
    UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = this[0]
    for (index in 1..lastIndex) {
        accumulator = operation(accumulator, this[index])
    }
    return accumulator
}

```

Accumulates value starting with the first element and applying [operation] from left to right to current accumulator value and each element. Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceOrNull] instead. It returns `null` when its receiver is empty.

@param [operation] function that takes current accumulator value and an element and calculates the next accumulator value.

```

@sample samples.collections.Collections.Aggregates.reduce
public inline fun
BooleanArray.reduce(operation: (acc: Boolean, Boolean) -> Boolean): Boolean {
    if (isEmpty()) throw
    UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = this[0]
    for (index in 1..lastIndex) {
        accumulator = operation(accumulator, this[index])
    }
    return accumulator
}

```

Accumulates value starting with the first element and applying [operation] from left to right to current accumulator value and each element. Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceOrNull] instead. It returns `null` when its receiver is empty.

@param [operation] function that takes current accumulator value and an element and calculates the next accumulator value.

```

@sample samples.collections.Collections.Aggregates.reduce
public inline fun
CharArray.reduce(operation: (acc: Char, Char) -> Char): Char {
    if (isEmpty()) throw
    UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = this[0]
    for (index in 1..lastIndex) {
        accumulator = operation(accumulator, this[index])
    }
}

```

```

return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from
left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Throws
an exception if this array is empty. If the array can be empty in an expected way,\n * please use
[reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function
that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next
accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun <S,
T : S> Array<out T>.reduceIndexed(operation: (index: Int, acc: S, T) -> S): S {\n if (isEmpty())\n throw
UnsupportedOperationException("Empty array can't be reduced.")\n var accumulator: S = this[0]\n for (index
in 1..lastIndex) {\n accumulator = operation(index, accumulator, this[index])\n }\n return
accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to
right\n * to current accumulator value and each element with its index in the original array.\n * \n * Throws an
exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull]
instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an
element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n *
@sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun
ByteArray.reduceIndexed(operation: (index: Int, acc: Byte, Byte) -> Byte): Byte {\n if (isEmpty())\n throw
UnsupportedOperationException("Empty array can't be reduced.")\n var accumulator = this[0]\n for (index in
1..lastIndex) {\n accumulator = operation(index, accumulator, this[index])\n }\n return
accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current
accumulator value and each element with its index in the original array.\n * \n * Throws an exception if this array is
empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null`
when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current
accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun ShortArray.reduceIndexed(operation:
(index: Int, acc: Short, Short) -> Short): Short {\n if (isEmpty())\n throw
UnsupportedOperationException("Empty array can't be reduced.")\n var accumulator = this[0]\n for (index in
1..lastIndex) {\n accumulator = operation(index, accumulator, this[index])\n }\n return
accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current
accumulator value and each element with its index in the original array.\n * \n * Throws an exception if this array is
empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null`
when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current
accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun IntArray.reduceIndexed(operation:
(index: Int, acc: Int, Int) -> Int): Int {\n if (isEmpty())\n throw UnsupportedOperationException("Empty array
can't be reduced.")\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator =
operation(index, accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current
accumulator value and each element with its index in the original array.\n * \n * Throws an exception if this array is
empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null`
when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current
accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun LongArray.reduceIndexed(operation:
(index: Int, acc: Long, Long) -> Long): Long {\n if (isEmpty())\n throw
UnsupportedOperationException("Empty array can't be reduced.")\n var accumulator = this[0]\n for (index in
1..lastIndex) {\n accumulator = operation(index, accumulator, this[index])\n }\n return
accumulator\n}\n\n/**\n

```

\* Accumulates value starting with the first element and applying [operation] from left to right  
 accumulator value and each element with its index in the original array.  
 Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.  
 @param [operation] function that takes the index of an element, current accumulator value and the element itself, and calculates the next accumulator value.  
 @sample  
 samples.collections.Collections.Aggregates.reduce  
 \n \* \n public inline fun FloatArray.reduceIndexed(operation: (index: Int, acc: Float, Float) -> Float): Float {  
 \n if (isEmpty())  
 throw  
 UnsupportedOperationException("Empty array can't be reduced.")  
 var accumulator = this[0]  
 for (index in 1..lastIndex) {  
 accumulator = operation(index, accumulator, this[index])  
 }  
 return  
 accumulator  
 }  
 \n \n /\*\*  
 \n \*

Accumulates value starting with the first element and applying [operation] from left to right  
 accumulator value and each element with its index in the original array.  
 Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.  
 @param [operation] function that takes the index of an element, current accumulator value and the element itself, and calculates the next accumulator value.  
 @sample  
 samples.collections.Collections.Aggregates.reduce  
 \n \* \n public inline fun DoubleArray.reduceIndexed(operation: (index: Int, acc: Double, Double) -> Double): Double {  
 \n if (isEmpty())  
 throw  
 UnsupportedOperationException("Empty array can't be reduced.")  
 var accumulator = this[0]  
 for (index in 1..lastIndex) {  
 accumulator = operation(index, accumulator, this[index])  
 }  
 return  
 accumulator  
 }  
 \n \n /\*\*  
 \n \*

\* Accumulates value starting with the first element and applying [operation] from left to right  
 accumulator value and each element with its index in the original array.  
 Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.  
 @param [operation] function that takes the index of an element, current accumulator value and the element itself, and calculates the next accumulator value.  
 @sample  
 samples.collections.Collections.Aggregates.reduce  
 \n \* \n public inline fun BooleanArray.reduceIndexed(operation: (index: Int, acc: Boolean, Boolean) -> Boolean): Boolean {  
 \n if (isEmpty())  
 throw  
 UnsupportedOperationException("Empty array can't be reduced.")  
 var accumulator = this[0]  
 for (index in 1..lastIndex) {  
 accumulator = operation(index, accumulator, this[index])  
 }  
 return  
 accumulator  
 }  
 \n \n /\*\*  
 \n \*

\* Accumulates value starting with the first element and applying [operation] from left to right  
 accumulator value and each element with its index in the original array.  
 Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.  
 @param [operation] function that takes the index of an element, current accumulator value and the element itself, and calculates the next accumulator value.  
 @sample  
 samples.collections.Collections.Aggregates.reduce  
 \n \* \n public inline fun CharArray.reduceIndexed(operation: (index: Int, acc: Char, Char) -> Char): Char {  
 \n if (isEmpty())  
 throw  
 UnsupportedOperationException("Empty array can't be reduced.")  
 var accumulator = this[0]  
 for (index in 1..lastIndex) {  
 accumulator = operation(index, accumulator, this[index])  
 }  
 return  
 accumulator  
 }  
 \n \n /\*\*  
 \n \*

\* Accumulates value starting with the first element and applying [operation] from left to right  
 accumulator value and each element with its index in the original array.  
 Returns `null` if the array is empty.  
 @param [operation] function that takes the index of an element, current accumulator value and the element itself, and calculates the next accumulator value.  
 @sample  
 samples.collections.Collections.Aggregates.reduceOrNull  
 \n \* \n @SinceKotlin("1.4")  
 \n public inline fun <S, T : S> Array<out T>.reduceIndexedOrNull(operation: (index: Int, acc: S, T) -> S): S? {  
 \n if (isEmpty())  
 return  
 null  
 var accumulator: S = this[0]  
 for (index in 1..lastIndex) {  
 accumulator = operation(index, accumulator, this[index])  
 }  
 return accumulator  
 }  
 \n \n /\*\*  
 \n \* Accumulates value starting with the first

element and applying [operation] from left to right\n \* to current accumulator value and each element with its index in the

original array.\n \* \n \* Returns `null` if the array is empty.\n \* \n \* @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n \* and calculates the next accumulator value.\n \* \n \* @sample samples.collections.Collections.Aggregates.reduceOrNull\n

```
*\n@SinceKotlin("1.4")\npublic inline fun ByteArray.reduceIndexedOrNull(operation: (index: Int, acc: Byte, Byte) -> Byte): Byte? {\n    if (isEmpty())\n        return null\n    var accumulator = this[0]\n    for (index in 1..lastIndex) {\n        accumulator = operation(index, accumulator, this[index])\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element
```

```
itself,\n * and calculates the next accumulator value.\n * \n * @sample
```

```
samples.collections.Collections.Aggregates.reduceOrNull\n*\n@SinceKotlin("1.4")\npublic inline fun ShortArray.reduceIndexedOrNull(operation: (index: Int, acc: Short, Short) -> Short): Short? {\n    if (isEmpty())\n        return null\n    var accumulator = this[0]\n    for (index in 1..lastIndex) {\n        accumulator = operation(index, accumulator, this[index])\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n
```

```
*\n@SinceKotlin("1.4")\npublic
```

```
inline fun IntArray.reduceIndexedOrNull(operation: (index: Int, acc: Int, Int) -> Int): Int? {\n    if (isEmpty())\n        return null\n    var accumulator = this[0]\n    for (index in 1..lastIndex) {\n        accumulator = operation(index, accumulator, this[index])\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n
```

```
*\n@SinceKotlin("1.4")\npublic inline fun LongArray.reduceIndexedOrNull(operation: (index: Int, acc: Long, Long) -> Long): Long? {\n    if (isEmpty())\n        return null\n    var accumulator = this[0]\n    for (index in 1..lastIndex) {\n        accumulator = operation(index, accumulator, this[index])\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample
```

```
samples.collections.Collections.Aggregates.reduceOrNull\n*\n@SinceKotlin("1.4")\npublic inline fun FloatArray.reduceIndexedOrNull(operation: (index: Int, acc: Float, Float) -> Float): Float? {\n    if (isEmpty())\n        return null\n    var accumulator = this[0]\n    for (index in 1..lastIndex) {\n        accumulator = operation(index, accumulator, this[index])\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n
```

```
*\n@SinceKotlin("1.4")\npublic inline fun DoubleArray.reduceIndexedOrNull(operation: (index: Int, acc: Double, Double) -> Double): Double? {\n    if (isEmpty())\n        return null\n    var accumulator = this[0]\n    for (index in 1..lastIndex) {\n        accumulator = operation(index, accumulator, this[index])\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to
```

```

right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns
`null` if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current
accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceOrNull\n * \n * @SinceKotlin("1.4")\npublic inline fun
BooleanArray.reduceIndexedOrNull(operation: (index: Int, acc: Boolean, Boolean) -> Boolean): Boolean? {\n if
(isEmpty())\n return null\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator =
operation(index, accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting
with the first element and applying [operation] from left to right\n * to current accumulator value and each element
with its index in the original array.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation]
function that takes the index of an element, current accumulator value and the element itself,\n
* and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceOrNull\n * \n * @SinceKotlin("1.4")\npublic inline fun
CharArray.reduceIndexedOrNull(operation: (index: Int, acc: Char, Char) -> Char): Char? {\n if (isEmpty())\n
return null\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(index,
accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the first
element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n *
Returns `null` if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and
an element,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceOrNull\n
* \n * @SinceKotlin("1.4")\n * @WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <S, T : S>
Array<out T>.reduceOrNull(operation:
(acc: S, T) -> S): S? {\n if (isEmpty())\n return null\n var accumulator: S = this[0]\n for (index in
1..lastIndex) {\n accumulator = operation(accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n *
Accumulates value starting with the first element and applying [operation] from left to right\n * to current
accumulator value and each element.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation]
function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n *
@sample samples.collections.Collections.Aggregates.reduceOrNull\n
* \n * @SinceKotlin("1.4")\n * @WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun
ByteArray.reduceOrNull(operation: (acc: Byte, Byte) -> Byte): Byte? {\n if (isEmpty())\n return null\n var
accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(accumulator, this[index])\n
}\n
return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from
left to right\n * to current accumulator value and each element.\n * \n * Returns `null` if the array is empty.\n *
\n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next
accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n
* \n * @SinceKotlin("1.4")\n * @WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun
ShortArray.reduceOrNull(operation: (acc: Short, Short) -> Short): Short? {\n if (isEmpty())\n return null\n
var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(accumulator, this[index])\n
}\n return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation]
from left to right\n * to current accumulator value and each element.\n * \n * Returns `null` if the array
is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and
calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n
* \n * @SinceKotlin("1.4")\n * @WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun
IntArray.reduceOrNull(operation: (acc: Int, Int) -> Int): Int? {\n if (isEmpty())\n return null\n var
accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(accumulator, this[index])\n
}\n return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation]
from left to right\n * to current accumulator value and each element.\n * \n * Returns `null` if the array is empty.\n *
\n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next

```



```

accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic
inline fun LongArray.reduceOrNull(operation: (acc: Long, Long) -> Long): Long? {\n if (isEmpty())\n return
null\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(accumulator,
this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and
applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns `null` if
the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n *
and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun
FloatArray.reduceOrNull(operation: (acc: Float, Float) -> Float): Float? {\n if (isEmpty())\n return null\n var
accumulator
= this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(accumulator, this[index])\n }\n return
accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to
right\n * to current accumulator value and each element.\n * \n * Returns `null` if the array is empty.\n * \n *
@param [operation] function that takes current accumulator value and an element,\n * and calculates the next
accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun
DoubleArray.reduceOrNull(operation: (acc: Double, Double) -> Double): Double? {\n if (isEmpty())\n return
null\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(accumulator,
this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and
applying
[operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns `null` if the array
is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and
calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun
BooleanArray.reduceOrNull(operation: (acc: Boolean, Boolean) -> Boolean): Boolean? {\n if (isEmpty())\n
return null\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator =
operation(accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the
first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n *
Returns `null` if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and
an element,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun
CharArray.reduceOrNull(operation: (acc: Char, Char) -> Char): Char? {\n if (isEmpty())\n return null\n var
accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(accumulator, this[index])\n
}\n return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation]
from right to left\n * to each element and current accumulator value.\n * \n * Throws an exception if this array is
empty. If the array can be empty in an expected way,\n * please use [reduceRightOrNull] instead. It returns `null`
when its receiver is empty.\n * \n * @param [operation] function that takes an element and current accumulator
value,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceRight\n
*\n@public inline fun <S, T : S> Array<out T>.reduceRight(operation: (T, acc: S) -> S): S {\n var index =
lastIndex\n if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n var
accumulator: S = get(index--)\n while (index >= 0) {\n accumulator = operation(get(index--), accumulator)\n
}\n return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation]
from right to left\n * to each element and current accumulator value.\n * \n * Throws an exception if this array is
empty. If the array can be empty in an expected way,\n * please use [reduceRightOrNull] instead. It returns `null`

```

when its receiver is empty.

```

    @param [operation] function that takes an element and current accumulator
    value, and calculates the next accumulator value.
    @sample
samples.collections.Collections.Aggregates.reduceRight
public inline fun
    ByteArray.reduceRight(operation: (Byte, acc: Byte) -> Byte): Byte {
        var index = lastIndex
        if (index < 0)
            throw UnsupportedOperationException("Empty array can't be reduced.")
        var accumulator = get(index--)
        while (index >= 0) {
            accumulator = operation(get(index--), accumulator)
        }
        return accumulator
    }
    Accumulates value starting with the last element and applying [operation] from right to left
    to each element and current accumulator value.
    Throws an exception if this array is empty. If the array can be empty in an expected way,
    please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty.
    @param [operation] function that takes an element and current accumulator value,
    and calculates the next accumulator value.
    @sample
samples.collections.Collections.Aggregates.reduceRight
public inline fun ShortArray.reduceRight(operation:
    (Short, acc: Short) -> Short): Short {
        var
        index = lastIndex
        if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")
        var accumulator = get(index--)
        while (index >= 0) {
            accumulator = operation(get(index--), accumulator)
        }
        return accumulator
    }
    Accumulates value starting with the last element and applying [operation]
    from right to left
    to each element and current accumulator value.
    Throws an exception if this array is empty. If the array can be empty in an expected way,
    please use [reduceRightOrNull] instead. It returns `null`
    when its receiver is empty.
    @param [operation] function that takes an element and current accumulator
    value,
    and calculates the next accumulator value.
    @sample
samples.collections.Collections.Aggregates.reduceRight
public inline fun IntArray.reduceRight(operation:
    (Int, acc: Int) -> Int): Int {
        var index = lastIndex
        if (index < 0) throw
        UnsupportedOperationException("Empty array
        can't be reduced.")
        var accumulator = get(index--)
        while (index >= 0) {
            accumulator =
            operation(get(index--), accumulator)
        }
        return accumulator
    }
    Accumulates value starting with the
    last element and applying [operation] from right to left
    to each element and current accumulator value.
    Throws an exception if this array is empty. If the array can be empty in an expected way,
    please use
    [reduceRightOrNull] instead. It returns `null` when its receiver is empty.
    @param [operation] function that
    takes an element and current accumulator value,
    and calculates the next accumulator value.
    @sample
samples.collections.Collections.Aggregates.reduceRight
public inline fun LongArray.reduceRight(operation:
    (Long, acc: Long) -> Long): Long {
        var index = lastIndex
        if (index < 0) throw
        UnsupportedOperationException("Empty array can't be reduced.")
        var accumulator = get(index--)
        while
        (index >=
        0) {
            accumulator = operation(get(index--), accumulator)
        }
        return accumulator
    }
    Accumulates value starting with the last element and applying [operation] from right to left
    to each element and
    current accumulator value.
    Throws an exception if this array is empty. If the array can be empty in an
    expected way,
    please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty.
    @param [operation] function that takes an element and current accumulator value,
    and calculates the next
    accumulator value.
    @sample
samples.collections.Collections.Aggregates.reduceRight
public inline
fun FloatArray.reduceRight(operation: (Float, acc: Float) -> Float): Float {
        var index = lastIndex
        if (index < 0)
            throw UnsupportedOperationException("Empty array can't be reduced.")
        var accumulator = get(index--)
        while (index >= 0) {
            accumulator = operation(get(index--), accumulator)
        }
        return accumulator
    }
    Accumulates value starting with the last element and applying [operation] from
    right to left
    to each element and current accumulator value.
    Throws an exception if this array is empty.
    If the array can be empty in an expected way,
    please use [reduceRightOrNull] instead. It returns `null` when its
    receiver is empty.
    @param [operation] function that takes an element and current accumulator value,
    and calculates the next
    accumulator value.
    @sample
samples.collections.Collections.Aggregates.reduceRight
public inline fun DoubleArray.reduceRight(operation:

```

```

(Double, acc: Double) -> Double): Double {
    var index = lastIndex
    if (index < 0) throw
    UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = get(index--)
    while
    (index >= 0) {
        accumulator = operation(get(index--), accumulator)
    }
    return accumulator
}

```

Accumulates value starting with the last element and applying [operation] from right to left to each element and current accumulator value.

Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty.

@param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.

@sample samples.collections.Collections.Aggregates.reduceRight

```

public inline fun
BooleanArray.reduceRight(operation: (Boolean, acc: Boolean) -> Boolean): Boolean {
    var index = lastIndex
    if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator =
    get(index--)
    while (index >= 0) {
        accumulator = operation(get(index--), accumulator)
    }
    return
    accumulator
}

```

Accumulates value starting with the last element and applying [operation] from right to left to each element and current accumulator value.

Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty.

@param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.

@sample samples.collections.Collections.Aggregates.reduceRight

```

public inline
fun CharArray.reduceRight(operation: (Char, acc: Char) -> Char): Char {
    var index = lastIndex
    if (index < 0)
    throw UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = get(index--)
    while (index >= 0) {
        accumulator = operation(get(index--), accumulator)
    }
    return
    accumulator
}

```

Accumulates value starting with the last element and applying [operation] from right to left to each element with its index in the original array and current accumulator value.

Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.

@param [operation] function that takes the index of an element, the element itself and current accumulator value, and calculates the next accumulator value.

@sample samples.collections.Collections.Aggregates.reduceRight

```

public inline fun
<S, T : S> Array<out T>.reduceRightIndexed(operation: (index: Int, T, acc: S) -> S): S {
    var index =
    lastIndex
    if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")
    var
    accumulator: S = get(index--)
    while (index >= 0) {
        accumulator = operation(index, get(index),
        accumulator)
        --index
    }
    return accumulator
}

```

Accumulates value starting with the last element and applying [operation] from right to left to each element with its index in the original array and current accumulator value.

Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.

@param [operation] function that takes the index of an element, the element itself and current accumulator value, and calculates the next accumulator value.

@sample samples.collections.Collections.Aggregates.reduceRight

```

public inline fun
ByteArray.reduceRightIndexed(operation: (index: Int, Byte, acc: Byte) -> Byte): Byte {
    var index =
    lastIndex
    if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator =
    get(index--)
    while (index >= 0) {
        accumulator = operation(index, get(index), accumulator)
        --index
    }
    return accumulator
}

```

Accumulates value starting with the last element and applying [operation] from right to left to each element with its index in the original array and current accumulator value.

Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.

@param [operation] function that takes the index of an element, the element itself and current accumulator value, and calculates the next accumulator value.

@sample samples.collections.Collections.Aggregates.reduceRight

```

public inline fun
ShortArray.reduceRightIndexed(operation: (index: Int, Short, acc: Short) -> Short): Short {
    var index =

```

```

lastIndex\n    if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n    var
accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(index, get(index),
accumulator)\n        --index\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the last
element and applying
[operation] from right to left\n * to each element with its index in the original array and current accumulator
value.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation]
function that takes the index of an element, the element itself and current accumulator value,\n * and calculates the
next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n */\n\npublic
inline fun IntArray.reduceRightIndexed(operation: (index: Int, Int, acc: Int) -> Int): Int {\n    var index = lastIndex\n
if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator =
get(index--)\n    while (index >= 0) {\n        accumulator = operation(index, get(index), accumulator)\n        --index\n
    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with
the last element and applying [operation] from right to left\n * to each element with its index in the original array
and current accumulator value.\n * \n * Throws an exception if this array is empty. If the array can be empty in an
expected way,\n * please use [reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n *
@param [operation] function that takes the index of an element, the element itself and current accumulator
value,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceRight\n */\n\npublic inline fun
LongArray.reduceRightIndexed(operation: (index: Int, Long, acc: Long) -> Long): Long {\n    var index =
lastIndex\n    if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n    var
accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(index, get(index),
accumulator)\n        --index\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element
with its index in the original array and current accumulator value.\n * \n * Throws an exception if this array is
empty. If the array can be empty in an expected way,\n * please use [reduceRightIndexedOrNull] instead. It returns
`null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, the
element itself and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceRight\n */\n\npublic inline fun
FloatArray.reduceRightIndexed(operation: (index: Int, Float, acc: Float) -> Float): Float {\n    var index =
lastIndex\n    if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n    var
accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(index, get(index),
accumulator)\n        --index\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation]
from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n *
Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use
[reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation]
function that takes the index of an element, the element itself and current accumulator value,\n * and calculates the
next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n */\n\npublic
inline fun DoubleArray.reduceRightIndexed(operation: (index: Int, Double, acc: Double) -> Double): Double {\n
var index = lastIndex\n    if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n
var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(index,
get(index), accumulator)\n        --index\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with
the last element and applying [operation] from right to left\n * to each element with its index in the original array
and current accumulator value.\n * \n * Throws an exception if this array is empty. If the array can be empty in an
expected way,\n * please use [reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n *
@param [operation] function that takes the index of an element, the element itself and current accumulator
value,\n * and calculates the next accumulator value.\n * \n * @sample

```

```

samples.collections.Collections.Aggregates.reduceRight\n *^\npublic inline fun
BooleanArray.reduceRightIndexed(operation: (index: Int, Boolean, acc: Boolean) -> Boolean): Boolean {\n  var
index = lastIndex\n  if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n
var accumulator = get(index--)\n
  while (index >= 0) {\n    accumulator = operation(index, get(index), accumulator)\n    --index\n  }\n  return
accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to
left\n * to each element with its index in the original array and current accumulator value.\n * \n * Throws an
exception if this array is empty. If the array can be empty in an expected way,\n * please use
[reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation]
function that takes the index of an element, the element itself and current accumulator value,\n * and calculates the
next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n *^\npublic
inline fun CharArray.reduceRightIndexed(operation: (index: Int, Char, acc: Char) -> Char): Char {\n  var index =
lastIndex\n  if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n
var accumulator = get(index--)\n  while (index >= 0) {\n    accumulator = operation(index, get(index),
accumulator)\n    --index\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with the last
element and applying [operation] from right to left\n * to each element with its index in the original array and
current accumulator value.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that
takes the index of an element, the element itself and current accumulator value,\n * and calculates the next
accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n *^\n@SinceKotlin("1.4")\npublic inline fun <S, T : S> Array<out T>.reduceRightIndexedOrNull(operation:
(index: Int, T, acc: S) -> S): S? {\n  var index = lastIndex\n  if (index < 0) return null\n  var accumulator: S =
get(index--)\n  while (index >= 0) {\n    accumulator = operation(index, get(index), accumulator)\n
--index\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying
[operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n
* \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes the index of an element,
the element itself and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceRightOrNull\n *^\n@SinceKotlin("1.4")\npublic inline fun
ByteArray.reduceRightIndexedOrNull(operation: (index: Int, Byte, acc: Byte) -> Byte): Byte? {\n  var index =
lastIndex\n  if (index < 0) return null\n  var accumulator = get(index--)\n  while (index >= 0) {\n
accumulator = operation(index, get(index), accumulator)\n    --index\n  }\n  return accumulator\n}\n\n/**\n *
Accumulates value starting with the last element and applying [operation] from right
to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns `null`
if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself and
current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceRightOrNull\n *^\n@SinceKotlin("1.4")\npublic inline fun
ShortArray.reduceRightIndexedOrNull(operation: (index: Int, Short, acc: Short) -> Short): Short? {\n  var index =
lastIndex\n  if (index < 0) return null\n  var accumulator = get(index--)\n  while (index >= 0) {\n
accumulator = operation(index, get(index), accumulator)\n    --index\n  }\n  return accumulator\n}\n\n/**\n *
Accumulates value starting with the last element and applying [operation] from right to left\n * to each element with
its index in the original array and current accumulator value.\n * \n * Returns `null` if the
array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself and
current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceRightOrNull\n *^\n@SinceKotlin("1.4")\npublic inline fun
IntArray.reduceRightIndexedOrNull(operation: (index: Int, Int, acc: Int) -> Int): Int? {\n  var index = lastIndex\n
if (index < 0) return null\n  var accumulator = get(index--)\n  while (index >= 0) {\n    accumulator =
operation(index, get(index), accumulator)\n    --index\n  }\n  return accumulator\n}\n\n/**\n * Accumulates
value starting with the last element and applying [operation] from right to left\n * to each element with its index in
the original array and current accumulator value.\n * \n * Returns `null` if the array is empty.\n * \n * @param

```

[operation] function that takes the index of an element, the element itself and current accumulator value, and calculates the next accumulator value.

```

samples.collections.Collections.Aggregates.reduceRightOrNull
@SinceKotlin("1.4")
public inline fun
LongArray.reduceRightIndexedOrNull(operation: (index: Int, Long, acc: Long) -> Long): Long? {
    var index =
lastIndex
    if (index < 0) return null
    var accumulator = get(index--)
    while (index >= 0) {
        accumulator = operation(index, get(index), accumulator)
        --index
    }
    return accumulator
}

```

Accumulates value starting with the last element and applying [operation] from right to left to each element with its index in the original array and current accumulator value. Returns `null` if the array is empty.

@param [operation] function that takes the index of an element, the element itself and current accumulator value, and calculates the next accumulator value.

```

samples.collections.Collections.Aggregates.reduceRightOrNull
@SinceKotlin("1.4")
public
inline fun FloatArray.reduceRightIndexedOrNull(operation: (index: Int, Float, acc: Float) -> Float): Float? {
    var index = lastIndex
    if (index < 0) return null
    var accumulator = get(index--)
    while (index >= 0) {
        accumulator = operation(index, get(index), accumulator)
        --index
    }
    return accumulator
}

```

Accumulates value starting with the last element and applying [operation] from right to left to each element with its index in the original array and current accumulator value. Returns `null` if the array is empty.

@param [operation] function that takes the index of an element, the element itself and current accumulator value, and calculates the next accumulator value.

```

samples.collections.Collections.Aggregates.reduceRightOrNull
@SinceKotlin("1.4")
public inline fun
DoubleArray.reduceRightIndexedOrNull(operation: (index: Int, Double, acc: Double) -> Double): Double? {
    var index = lastIndex
    if (index < 0) return null
    var accumulator = get(index--)
    while (index >= 0) {
        accumulator = operation(index, get(index), accumulator)
        --index
    }
    return accumulator
}

```

Accumulates value starting with the last element and applying [operation] from right to left to each element with its index in the original array and current accumulator value. Returns `null` if the array is empty.

@param [operation] function that takes the index of an element, the element itself and current accumulator value, and calculates the next accumulator value.

```

samples.collections.Collections.Aggregates.reduceRightOrNull
@SinceKotlin("1.4")
public inline fun
BooleanArray.reduceRightIndexedOrNull(operation: (index: Int, Boolean, acc: Boolean) -> Boolean): Boolean? {
    var index = lastIndex
    if (index < 0) return null
    var accumulator = get(index--)
    while (index >= 0) {
        accumulator = operation(index, get(index), accumulator)
        --index
    }
    return accumulator
}

```

Accumulates value starting with the last element and applying [operation] from right to left to each element with its index in the original array and current accumulator value. Returns `null` if the array is empty.

@param [operation] function that takes the index of an element, the element itself and current accumulator value, and calculates the next accumulator value.

```

samples.collections.Collections.Aggregates.reduceRightOrNull
@SinceKotlin("1.4")
public inline fun
CharArray.reduceRightIndexedOrNull(operation: (index: Int, Char, acc: Char) -> Char): Char? {
    var index = lastIndex
    if (index < 0) return null
    var accumulator = get(index--)
    while (index >= 0) {
        accumulator = operation(index, get(index), accumulator)
        --index
    }
    return accumulator
}

```

Accumulates value starting with the last element and applying [operation] from right to left to each element and current accumulator value. Returns `null` if the array is empty.

@param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.

```

@sample samples.collections.Collections.Aggregates.reduceRightOrNull
@SinceKotlin("1.4")
@WasExperimental(ExperimentalStdlibApi::class)
public inline fun <S, T : S>
Array<out T>.reduceRightOrNull(operation: (T, acc: S) -> S): S? {
    var index = lastIndex
    if (index < 0) return null
    var accumulator: S = get(index--)
    while (index >= 0) {
        accumulator = operation(get(index--), accumulator)
    }
    return accumulator
}

```

Accumulates value starting with the last element and applying [operation] from right to left to each element and current accumulator value. Returns `null` if the array is empty.

```

* \n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun
ByteArray.reduceRightOrNull(operation: (Byte, acc: Byte) -> Byte): Byte? {\n  var index = lastIndex\n  if (index < 0) return null\n  var accumulator = get(index--)\n  while (index >= 0) {\n    accumulator = operation(get(index--), accumulator)\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun
ShortArray.reduceRightOrNull(operation: (Short, acc: Short) -> Short): Short? {\n  var index = lastIndex\n  if (index < 0) return null\n  var accumulator = get(index--)\n  while (index >= 0) {\n    accumulator = operation(get(index--), accumulator)\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun
IntArray.reduceRightOrNull(operation: (Int, acc: Int) -> Int): Int? {\n  var index = lastIndex\n  if (index < 0) return null\n  var accumulator = get(index--)\n  while (index >= 0) {\n    accumulator = operation(get(index--), accumulator)\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun
LongArray.reduceRightOrNull(operation: (Long, acc: Long) -> Long): Long? {\n  var index = lastIndex\n  if (index < 0) return null\n  var accumulator = get(index--)\n  while (index >= 0) {\n    accumulator = operation(get(index--), accumulator)\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun
FloatArray.reduceRightOrNull(operation: (Float, acc: Float) -> Float): Float? {\n  var index = lastIndex\n  if (index < 0) return null\n  var accumulator = get(index--)\n  while (index >= 0) {\n    accumulator = operation(get(index--), accumulator)\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun
DoubleArray.reduceRightOrNull(operation: (Double, acc: Double) -> Double): Double? {\n  var index = lastIndex\n  if (index < 0) return null\n  var accumulator = get(index--)\n  while (index >= 0) {\n    accumulator = operation(get(index--), accumulator)\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n

```

```

value.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes an element and
current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceRightOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun
BooleanArray.reduceRightOrNull(operation: (Boolean, acc: Boolean) -> Boolean): Boolean? {\n  var index =
lastIndex\n  if (index < 0) return null\n  var accumulator = get(index--)\n  while (index >= 0) {\n
accumulator = operation(get(index--), accumulator)\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value
starting with the last element and applying [operation] from right to left\n * to each element and current accumulator
value.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes an element and
current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceRightOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun
CharArray.reduceRightOrNull(operation: (Char,
acc: Char) -> Char): Char? {\n  var index = lastIndex\n  if (index < 0) return null\n  var accumulator =
get(index--)\n  while (index >= 0) {\n    accumulator = operation(get(index--), accumulator)\n  }\n  return
accumulator\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying
[operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n
* Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the
previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an
element, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.runningFold\n
*\n@SinceKotlin("1.4")\npublic inline fun <T, R>
Array<out T>.runningFold(initial: R, operation: (acc: R, T) -> R): List<R> {\n  if (isEmpty()) return
listOf(initial)\n  val result
= ArrayList<R>(size + 1).apply { add(initial) }\n  var accumulator = initial\n  for (element in this) {\n
accumulator = operation(accumulator, element)\n  result.add(accumulator)\n  }\n  return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying
[operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n
* Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the
previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an
element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R> ByteArray.runningFold(initial: R,
operation: (acc: R, Byte) -> R): List<R> {\n  if (isEmpty()) return listOf(initial)\n  val result
= ArrayList<R>(size + 1).apply { add(initial) }\n  var accumulator = initial\n  for (element in this) {\n
accumulator = operation(accumulator, element)\n  result.add(accumulator)\n  }\n  return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying
[operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n
* Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the
previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an
element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R> ShortArray.runningFold(initial: R,
operation: (acc: R, Short) -> R): List<R> {\n  if (isEmpty()) return listOf(initial)\n  val
result = ArrayList<R>(size + 1).apply { add(initial) }\n  var accumulator = initial\n  for (element in this) {\n
accumulator = operation(accumulator, element)\n  result.add(accumulator)\n  }\n  return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying
[operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n
* Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the
previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an
element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n

```



```

*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R> IntArray.runningFold(initial: R,
operation: (acc: R, Int) -> R): List<R> {\n  if (isEmpty()) return listOf(initial)\n  val result = ArrayList<R>(size + 1).apply { add(initial) }\n  var accumulator = initial\n  for (element in this) {\n    accumulator = operation(accumulator, element)\n    result.add(accumulator)\n  }\n  return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R> LongArray.runningFold(initial: R,
operation: (acc: R, Long) -> R): List<R> {\n  if (isEmpty()) return listOf(initial)\n  val result = ArrayList<R>(size + 1).apply { add(initial) }\n  var accumulator = initial\n  for (element in this) {\n    accumulator = operation(accumulator, element)\n    result.add(accumulator)\n  }\n  return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R> FloatArray.runningFold(initial: R,
operation: (acc: R, Float) -> R): List<R> {\n  if (isEmpty()) return listOf(initial)\n  val result = ArrayList<R>(size + 1).apply { add(initial) }\n  var accumulator = initial\n  for (element in this) {\n    accumulator = operation(accumulator, element)\n    result.add(accumulator)\n  }\n  return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R> DoubleArray.runningFold(initial: R,
operation: (acc: R, Double) -> R): List<R> {\n  if (isEmpty()) return listOf(initial)\n  val result = ArrayList<R>(size + 1).apply { add(initial) }\n  var accumulator = initial\n  for (element in this) {\n    accumulator = operation(accumulator, element)\n    result.add(accumulator)\n  }\n  return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R> BooleanArray.runningFold(initial: R,
operation: (acc: R, Boolean) -> R): List<R> {\n  if (isEmpty())\n    return listOf(initial)\n  val result = ArrayList<R>(size + 1).apply { add(initial) }\n  var accumulator = initial\n  for (element in this) {\n    accumulator = operation(accumulator, element)\n    result.add(accumulator)\n  }\n  return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharArray.runningFold(initial: R,
operation: (acc: R, Char) -> R): List<R> {\n  if (isEmpty())

```

```

return listOf(initial)\n    val result = ArrayList<R>(size + 1).apply { add(initial) }\n    var accumulator = initial\nfor (element in this) {\n    accumulator = operation(accumulator, element)\n    result.add(accumulator)\n}\nreturn result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying\n [operation] from left to right\n * to each element, its index in the original array and current accumulator value that\n starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the\n index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator\n value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n\n*/\n@SinceKotlin("1.4")\npublic inline fun <T, R> Array<out T>.runningFoldIndexed(initial: R,\n    operation: (index: Int, acc: R, T) -> R): List<R> {\n    if (isEmpty()) return listOf(initial)\n    val result =\n    ArrayList<R>(size + 1).apply { add(initial) }\n    var accumulator = initial\n    for (index in indices) {\n        accumulator = operation(index, accumulator, this[index])\n        result.add(accumulator)\n    }\n    return\n    result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from\n left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial]\n value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would\n affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element,\n current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample\n samples.collections.Collections.Aggregates.runningFold\n\n*/\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic\n    inline fun <R> ByteArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Byte) -> R): List<R> {\n    if (isEmpty()) return listOf(initial)\n    val result = ArrayList<R>(size + 1).apply { add(initial) }\n    var accumulator\n    = initial\n    for (index in indices) {\n        accumulator = operation(index, accumulator, this[index])\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation\n values generated by applying [operation] from left to right\n * to each element, its index in the original array and\n current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function\n should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation]\n function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the\n next accumulator\n value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n\n*/\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R>\nShortArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Short) -> R): List<R> {\n    if (isEmpty())\n    return listOf(initial)\n    val result = ArrayList<R>(size + 1).apply { add(initial) }\n    var accumulator = initial\n    for (index in indices) {\n        accumulator = operation(index, accumulator, this[index])\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation\n values generated by applying [operation] from left to right\n * to each element, its index in the original array and\n current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function\n should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation]\n function that takes the\n index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator\n value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n\n*/\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R>\nIntArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Int) -> R): List<R> {\n    if (isEmpty()) return\n    listOf(initial)\n    val result = ArrayList<R>(size + 1).apply { add(initial) }\n    var accumulator = initial\n    for\n    (index in indices) {\n        accumulator = operation(index, accumulator, this[index])\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying\n [operation] from left to right\n * to each element, its index in the original array and current accumulator value that\n starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise\n otherwise

```

it would affect the previous value in resulting list.\n \* \n \* @param [operation] function that takes the index of an element, current accumulator value\n \* and the element itself, and calculates the next accumulator value.\n \* \n \* @sample samples.collections.Collections.Aggregates.runningFold\n

```
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R>
```

LongArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Long) -> R): List<R> {\n if (isEmpty())\n return listOf(initial)\n val result = ArrayList<R>(size + 1).apply { add(initial) }\n var accumulator = initial\n for (index in indices) {\n accumulator = operation(index, accumulator, this[index])\n result.add(accumulator)\n }\n return result\n}\n\n/\*\*\n \* Returns a list containing successive accumulation values generated by applying [operation] from left to right\n \* to each element, its index in the original array and current accumulator value that starts with [initial] value.\n \* \n \* Note that `acc` value passed to [operation] function should not be mutated;\n \* otherwise it would affect the previous value in resulting list.\n \* \n \* @param [operation] function that takes the index of an element, current accumulator value\n \* and the element itself, and calculates the next accumulator value.\n \* \n \* @sample samples.collections.Collections.Aggregates.runningFold\n

```
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R>
```

FloatArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Float) -> R): List<R> {\n if (isEmpty())\n return listOf(initial)\n val result = ArrayList<R>(size + 1).apply { add(initial) }\n var accumulator = initial\n for (index in indices) {\n accumulator = operation(index, accumulator, this[index])\n result.add(accumulator)\n }\n return result\n}\n\n/\*\*\n \* Returns a list containing successive accumulation values generated by applying [operation] from left to right\n \* to each element, its index in the original array and current accumulator value that starts with [initial] value.\n \* \n \* Note that `acc` value passed to [operation] function should not be mutated;\n \* otherwise it would affect the previous value in resulting list.\n \* \n \* @param [operation] function that takes the index of an element, current accumulator value\n \* and the element itself, and calculates the next accumulator value.\n \* \n \* @sample samples.collections.Collections.Aggregates.runningFold\n

```
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R>
```

DoubleArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Double) -> R): List<R> {\n if (isEmpty())\n return listOf(initial)\n val result = ArrayList<R>(size + 1).apply { add(initial) }\n var accumulator = initial\n for (index in indices) {\n accumulator = operation(index, accumulator, this[index])\n result.add(accumulator)\n }\n return result\n}\n\n/\*\*\n \* Returns a list containing successive accumulation values generated by applying [operation] from left to right\n \* to each element, its index in the original array and current accumulator value that starts with [initial] value.\n \* \n \* Note that `acc` value passed to [operation] function should not be mutated;\n \* otherwise it would affect the previous value in resulting list.\n \* \n \* @param [operation] function that takes the index of an element, current accumulator value\n \* and the element itself, and calculates the next accumulator value.\n \* \n \* @sample samples.collections.Collections.Aggregates.runningFold\n

```
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R>
```

BooleanArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Boolean) -> R): List<R> {\n if (isEmpty())\n return listOf(initial)\n val result = ArrayList<R>(size + 1).apply { add(initial) }\n var accumulator = initial\n for (index in indices) {\n accumulator = operation(index, accumulator, this[index])\n result.add(accumulator)\n }\n return result\n}\n\n/\*\*\n \* Returns a list containing successive accumulation values generated by applying [operation] from left to right\n \* to each element, its index in the original array and current accumulator value that starts with [initial] value.\n \* \n \* Note that `acc` value passed to [operation] function should not be mutated;\n \* otherwise it would affect the previous value in resulting list.\n \* \n \* @param [operation] function that takes the index of an element, current accumulator value\n \* and the element itself, and calculates the next accumulator value.\n \* \n \* @sample samples.collections.Collections.Aggregates.runningFold\n

```
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R>
```

```

CharArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Char) -> R): List<R> {
    if (isEmpty())
        return listOf(initial)
    val result = ArrayList<R>(size + 1).apply { add(initial) }
    var accumulator = initial
    for (index in indices) {
        accumulator = operation(index, accumulator, this[index])
        result.add(accumulator)
    }
    return result
}

```

\* Returns a list containing successive accumulation values generated by applying [operation] from left to right to each element and current accumulator value that starts with the first element of this array.

\* Note that `acc` value passed to [operation] function should not be mutated; otherwise it would affect the previous value in resulting list.

\* @param [operation] function that takes current accumulator value and the element, and calculates the next accumulator value.

\* @sample samples.collections.Collections.Aggregates.runningReduce

```

* \n @SinceKotlin("1.4") \n @WasExperimental(ExperimentalStdlibApi::class) \n public inline fun <S, T : S>
Array<out T>.runningReduce(operation: (acc: S, T) -> S): List<S> {
    if (isEmpty()) return emptyList()
    var accumulator: S = this[0]
    val result = ArrayList<S>(size).apply { add(accumulator) }
    for (index in 1 until size) {
        accumulator = operation(accumulator, this[index])
        result.add(accumulator)
    }
    return result
}

```

\* Returns a list containing successive accumulation values generated by applying [operation] from left to right to each element and current accumulator value that starts with the first element of this array.

\* @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.

\* @sample samples.collections.Collections.Aggregates.runningReduce

```

* \n @SinceKotlin("1.4") \n @kotlin.internal.InlineOnly \n public inline fun ByteArray.runningReduce(operation:
(acc: Byte, Byte) -> Byte): List<Byte> {
    if (isEmpty()) return emptyList()
    var accumulator = this[0]
    val result = ArrayList<Byte>(size).apply { add(accumulator) }
    for (index in 1 until size) {
        accumulator = operation(accumulator, this[index])
        result.add(accumulator)
    }
    return result
}

```

\* Returns a list containing successive accumulation values generated by applying [operation] from left to right to each element and current accumulator value that starts with the first element of this array.

\* @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.

\* @sample samples.collections.Collections.Aggregates.runningReduce

```

* \n @SinceKotlin("1.4") \n @kotlin.internal.InlineOnly \n public inline fun ShortArray.runningReduce(operation:
(acc: Short, Short) -> Short): List<Short> {
    if (isEmpty()) return emptyList()
    var accumulator = this[0]
    val result = ArrayList<Short>(size).apply { add(accumulator) }
    for (index in 1 until size) {
        accumulator = operation(accumulator, this[index])
        result.add(accumulator)
    }
    return result
}

```

\* Returns a list containing successive accumulation values generated by applying [operation] from left to right to each element and current accumulator value that starts with the first element of this array.

\* @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.

\* @sample samples.collections.Collections.Aggregates.runningReduce

```

* \n @SinceKotlin("1.4") \n @kotlin.internal.InlineOnly \n public inline fun IntArray.runningReduce(operation: (acc:
Int, Int) -> Int): List<Int> {
    if (isEmpty()) return emptyList()
    var accumulator = this[0]
    val result = ArrayList<Int>(size).apply { add(accumulator) }
    for (index in 1 until size) {
        accumulator = operation(accumulator, this[index])
        result.add(accumulator)
    }
    return result
}

```

\* Returns a list containing successive accumulation values generated by applying [operation] from left to right to each element and current accumulator value that starts with the first element of this array.

\* @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.

\* @sample samples.collections.Collections.Aggregates.runningReduce

```

* \n @SinceKotlin("1.4") \n @kotlin.internal.InlineOnly \n public inline fun LongArray.runningReduce(operation: (acc:
Long, Long) -> Long): List<Long> {
    if (isEmpty()) return emptyList()
    var accumulator = this[0]
    val result = ArrayList<Long>(size).apply { add(accumulator) }
    for (index in 1 until size) {
        accumulator = operation(accumulator, this[index])
        result.add(accumulator)
    }
    return result
}

```

\* Returns a list containing successive accumulation values generated by applying [operation] from left to right to each element and current accumulator value that starts with the first element of this array.

\* @param [operation] function that

takes current accumulator value and an element, and calculates the next accumulator value.\n \* \n \* @sample samples.collections.Collections.Aggregates.runningReduce\n

```
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.runningReduce(operation: (acc: Float, Float) -> Float): List<Float> {\n    if (isEmpty()) return emptyList()\n    var accumulator = this[0]\n    val result = ArrayList<Float>(size).apply { add(accumulator) }\n    for (index in 1 until size) {\n        accumulator = operation(accumulator, this[index])\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n
```

```
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.runningReduce(operation: (acc: Double, Double) -> Double): List<Double> {\n    if (isEmpty()) return emptyList()\n    var accumulator = this[0]\n    val result = ArrayList<Double>(size).apply { add(accumulator) }\n    for (index in 1 until size) {\n        accumulator = operation(accumulator, this[index])\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n
```

```
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.runningReduce(operation: (acc: Boolean, Boolean) -> Boolean): List<Boolean> {\n    if (isEmpty()) return emptyList()\n    var accumulator = this[0]\n    val result = ArrayList<Boolean>(size).apply { add(accumulator) }\n    for (index in 1 until size) {\n        accumulator = operation(accumulator, this[index])\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n
```

```
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.runningReduce(operation: (acc: Char, Char) -> Char): List<Char> {\n    if (isEmpty()) return emptyList()\n    var accumulator = this[0]\n    val result = ArrayList<Char>(size).apply { add(accumulator) }\n    for (index in 1 until size) {\n        accumulator = operation(accumulator, this[index])\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with the first element of this array.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n
```

```
*\n@SinceKotlin("1.4")\npublic inline fun <S, T : S> Array<out T>.runningReduceIndexed(operation: (index: Int, acc: S, T) -> S): List<S> {\n    if (isEmpty()) return emptyList()\n    var accumulator: S = this[0]\n    val result = ArrayList<S>(size).apply { add(accumulator) }\n    for (index in 1 until size) {\n        accumulator = operation(index, accumulator, this[index])\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n
```

```
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.runningReduceIndexed(operation: (index: Int, acc: Byte,
```

```

Byte) -> Byte): List<Byte> {\n  if (isEmpty()) return emptyList()\n  var accumulator = this[0]\n  val result =
ArrayList<Byte>(size).apply { add(accumulator) }\n  for (index in 1 until size) {\n    accumulator =
operation(index, accumulator, this[index])\n    result.add(accumulator)\n  }\n  return result\n}\n\n/**\n *
Returns a list containing successive accumulation values generated by applying [operation] from left to right\n *
to each element, its index in the original array and current accumulator value that starts with the first element of this
array.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and
the element itself, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.runningReduce\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun
ShortArray.runningReduceIndexed(operation: (index: Int, acc: Short, Short) -> Short): List<Short>
{\n  if (isEmpty()) return emptyList()\n  var accumulator = this[0]\n  val result = ArrayList<Short>(size).apply {
add(accumulator) }\n  for (index in 1 until size) {\n    accumulator = operation(index, accumulator, this[index])\n
    result.add(accumulator)\n  }\n  return result\n}\n\n/**\n * Returns a list containing successive accumulation
values generated by applying [operation] from left to right\n * to each element, its index in the original array and
current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that
takes the index of an element, current accumulator value\n * and the element itself, and calculates the next
accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun
IntArray.runningReduceIndexed(operation: (index: Int, acc: Int, Int) -> Int): List<Int> {\n  if (isEmpty()) return
emptyList()\n
  var accumulator = this[0]\n  val result = ArrayList<Int>(size).apply { add(accumulator) }\n  for (index in 1
until size) {\n    accumulator = operation(index, accumulator, this[index])\n    result.add(accumulator)\n  }\n
return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying
[operation] from left to right\n * to each element, its index in the original array and current accumulator value that
starts with the first element of this array.\n * \n * @param [operation] function that takes the index of an element,
current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.runningReduce\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun
LongArray.runningReduceIndexed(operation: (index: Int, acc: Long, Long) -> Long): List<Long> {\n  if
(isEmpty()) return emptyList()\n  var accumulator =
this[0]\n  val result = ArrayList<Long>(size).apply { add(accumulator) }\n  for (index in 1 until size) {\n
accumulator = operation(index, accumulator, this[index])\n    result.add(accumulator)\n  }\n  return
result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from
left to right\n * to each element, its index in the original array and current accumulator value that starts with the
first element of this array.\n * \n * @param [operation] function that takes the index of an element, current accumulator
value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.runningReduce\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun
FloatArray.runningReduceIndexed(operation: (index: Int, acc: Float, Float) -> Float): List<Float> {\n  if
(isEmpty()) return emptyList()\n  var accumulator = this[0]\n  val result =
ArrayList<Float>(size).apply { add(accumulator) }\n  for (index in 1 until size) {\n    accumulator =
operation(index, accumulator, this[index])\n    result.add(accumulator)\n  }\n  return result\n}\n\n/**\n *
Returns a list containing successive accumulation values generated by applying [operation] from left to right\n *
to each element, its index in the original array and current accumulator value that starts with the first element of this
array.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and
the element itself, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.runningReduce\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun

```

```

DoubleArray.runningReduceIndexed(operation: (index: Int, acc: Double, Double) -> Double): List<Double> {
    if (isEmpty()) return emptyList()
    var accumulator = this[0]
    val result = ArrayList<Double>(size).apply {
        add(accumulator)
    }
    for (index in 1 until size) {
        accumulator = operation(index, accumulator, this[index])
        result.add(accumulator)
    }
    return result
}

/**
 * Returns a list containing successive accumulation values generated by applying [operation] from left to right
 * to each element, its index in the original array and current accumulator value that starts with the first element of this array.
 * @param [operation] function that takes the index of an element, current accumulator value
 * and the element itself, and calculates the next accumulator value.
 * @sample samples.collections.Collections.Aggregates.runningReduce
 */
@SinceKotlin("1.4")
@kotlin.internal.InlineOnly
public inline fun

BooleanArray.runningReduceIndexed(operation: (index: Int, acc: Boolean, Boolean) -> Boolean): List<Boolean> {
    if (isEmpty()) return emptyList()
    var accumulator = this[0]
    val result = ArrayList<Boolean>(size).apply {
        add(accumulator)
    }
    for (index in 1 until size) {
        accumulator = operation(index, accumulator, this[index])
        result.add(accumulator)
    }
    return result
}

/**
 * Returns a list containing successive accumulation values generated by applying [operation] from left to right
 * to each element, its index in the original array and current accumulator value that starts with the first element of this array.
 * @param [operation] function that takes the index of an element, current accumulator value
 * and the element itself, and calculates the next accumulator value.
 * @sample samples.collections.Collections.Aggregates.runningReduce
 */
@SinceKotlin("1.4")
@kotlin.internal.InlineOnly
public inline fun

CharArray.runningReduceIndexed(operation: (index: Int, acc: Char, Char) -> Char): List<Char> {
    if (isEmpty()) return emptyList()
    var accumulator = this[0]
    val result = ArrayList<Char>(size).apply {
        add(accumulator)
    }
    for (index in 1 until size) {
        accumulator = operation(index, accumulator, this[index])
        result.add(accumulator)
    }
    return result
}

/**
 * Returns a list containing successive accumulation values generated by applying [operation] from left to right
 * to each element and current accumulator value that starts with [initial] value.
 * Note that `acc` value passed to [operation] function should not be mutated; otherwise it would affect the
 * previous value in resulting list.
 * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.
 * @sample samples.collections.Collections.Aggregates.scan
 */
@SinceKotlin("1.4")
@WasExperimental(ExperimentalStdlibApi::class)
public inline fun <T, R>

Array<out T>.scan(initial: R, operation: (acc: R, T) -> R): List<R> {
    return runningFold(initial, operation)
}

/**
 * Returns a list containing successive accumulation values generated by applying [operation] from left to right
 * to each element and current accumulator value that starts with [initial] value.
 * Note that `acc` value passed to [operation] function should not be mutated; otherwise it would
 * affect the previous value in resulting list.
 * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.
 * @sample samples.collections.Collections.Aggregates.scan
 */
@SinceKotlin("1.4")
@WasExperimental(ExperimentalStdlibApi::class)
@kotlin.internal.InlineOnly
public inline fun <R>

ByteArray.scan(initial: R, operation: (acc: R, Byte) -> R): List<R> {
    return runningFold(initial, operation)
}

/**
 * Returns a list containing successive accumulation values generated by applying [operation] from left to right
 * to each element and current accumulator value that starts with [initial] value.
 * Note that `acc` value passed to [operation] function should not be mutated; otherwise it would affect the previous value in resulting list.
 * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.
 * @sample samples.collections.Collections.Aggregates.scan
 */
@SinceKotlin("1.4")
@WasExperimental(ExperimentalStdlibApi::class)
@kotlin.internal.InlineOnly
public inline fun <R>

ShortArray.scan(initial: R, operation: (acc: R, Short) -> R): List<R> {
    return runningFold(initial, operation)
}

/**
 * Returns a list containing successive accumulation values generated by
 */

```

applying [operation] from left to right\n \* to each element and current accumulator value that starts with [initial] value.\n \* \n \* Note that `acc` value passed to [operation] function should not be mutated;\n \* otherwise it would affect the previous value in resulting list.\n \* \n \* @param [operation] function that takes current accumulator value and an element, and calculates the next

accumulator value.\n \* \n \* @sample samples.collections.Collections.Aggregates.scan\n

```
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> IntArray.scan(initial: R, operation: (acc: R, Int) -> R): List<R> {\n    return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n *\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline
```

```
fun <R> LongArray.scan(initial: R, operation: (acc: R, Long) -> R): List<R> {\n    return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n
```

```
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> FloatArray.scan(initial: R, operation: (acc: R, Float) -> R): List<R> {\n    return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample
```

```
samples.collections.Collections.Aggregates.scan\n *\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> DoubleArray.scan(initial: R, operation: (acc: R, Double) -> R): List<R> {\n    return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n
```

```
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> BooleanArray.scan(initial: R, operation: (acc: R, Boolean) -> R): List<R> {\n    return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates
```

the next accumulator value.\n \* \n \* @sample samples.collections.Collections.Aggregates.scan\n

```
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharArray.scan(initial: R, operation: (acc: R, Char) -> R): List<R> {\n    return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with
```



[initial] value.\n \* \n \* Note that `acc` value passed to [operation] function should not be mutated;\n \* otherwise it would affect the previous value in resulting list.\n \* \n \* @param [operation] function that takes the index of an element, current accumulator value\n \* and the element itself, and calculates the next accumulator value.\n \* \n \* @sample samples.collections.Collections.Aggregates.scan\n

```
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <T, R> Array<out T>.scanIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): List<R> {\n    return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n
```

```
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> ByteArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Byte) -> R): List<R> {\n    return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n
```

```
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> ShortArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Short) -> R): List<R> {\n    return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n
```

```
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> IntArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Int) -> R): List<R> {\n    return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n
```

```
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> LongArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Long) -> R): List<R> {\n    return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n
```



```

selector(element)\n } \n return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the array.\n */\n@Deprecated("Use sumOf instead.\n",
ReplaceWith("this.sumOf(selector)\n"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline fun
FloatArray.sumBy(selector: (Float) -> Int): Int {\n var sum: Int = 0\n for (element in this) {\n sum +=
selector(element)\n } \n return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied
to each element in the array.\n */\n@Deprecated("Use sumOf instead.\n",
ReplaceWith("this.sumOf(selector)\n"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline fun
DoubleArray.sumBy(selector: (Double) -> Int): Int {\n var sum: Int = 0\n for (element in this) {\n sum +=
selector(element)\n } \n return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the array.\n */\n@Deprecated("Use sumOf instead.\n",
ReplaceWith("this.sumOf(selector)\n"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline fun
BooleanArray.sumBy(selector: (Boolean) -> Int): Int {\n var sum: Int = 0\n for (element in this) {\n sum +=
selector(element)\n } \n return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the array.\n */\n@Deprecated("Use sumOf instead.\n",
ReplaceWith("this.sumOf(selector)\n"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic
inline fun CharArray.sumBy(selector: (Char) -> Int): Int {\n var sum: Int = 0\n for (element in this) {\n sum
+= selector(element)\n } \n return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector]
function applied to each element in the array.\n */\n@Deprecated("Use sumOf instead.\n",
ReplaceWith("this.sumOf(selector)\n"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline fun <T>
Array<out T>.sumByDouble(selector: (T) -> Double): Double {\n var sum: Double = 0.0\n for (element in this)
{\n sum += selector(element)\n } \n return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n */\n@Deprecated("Use sumOf instead.\n",
ReplaceWith("this.sumOf(selector)\n"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline fun
ByteArray.sumByDouble(selector: (Byte) -> Double): Double {\n var sum: Double = 0.0\n for (element in this)
{\n
sum += selector(element)\n } \n return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n */\n@Deprecated("Use sumOf instead.\n",
ReplaceWith("this.sumOf(selector)\n"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline fun
ShortArray.sumByDouble(selector: (Short) -> Double): Double {\n var sum: Double = 0.0\n for (element in this)
{\n sum += selector(element)\n } \n return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n */\n@Deprecated("Use sumOf instead.\n",
ReplaceWith("this.sumOf(selector)\n"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline fun
IntArray.sumByDouble(selector: (Int) -> Double): Double {\n var sum: Double = 0.0\n for (element in this) {\n
sum += selector(element)\n } \n return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector]
function
applied to each element in the array.\n */\n@Deprecated("Use sumOf instead.\n",
ReplaceWith("this.sumOf(selector)\n"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline fun
LongArray.sumByDouble(selector: (Long) -> Double): Double {\n var sum: Double = 0.0\n for (element in this)
{\n sum += selector(element)\n } \n return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n */\n@Deprecated("Use sumOf instead.\n",
ReplaceWith("this.sumOf(selector)\n"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline fun
FloatArray.sumByDouble(selector: (Float) -> Double): Double {\n var sum: Double = 0.0\n for (element in this)
{\n sum += selector(element)\n } \n return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n */\n@Deprecated("Use sumOf instead.\n",
ReplaceWith("this.sumOf(selector)\n"))\n@DeprecatedSinceKotlin(warningSince
= "1.5")\npublic inline fun DoubleArray.sumByDouble(selector: (Double) -> Double): Double {\n var sum:
Double = 0.0\n for (element in this) {\n sum += selector(element)\n } \n return sum\n}\n\n/**\n * Returns

```

```

the sum of all values produced by [selector] function applied to each element in the array.\n *\n@Deprecated("Use
sumOf instead.", ReplaceWith("this.sumOf(selector)"))\n@DeprecatedSinceKotlin(warningSince =
"1.5")\npublic inline fun BooleanArray.sumByDouble(selector: (Boolean) -> Double): Double {\n  var sum:
Double = 0.0\n  for (element in this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns
the sum of all values produced by [selector] function applied to each element in the array.\n *\n@Deprecated("Use
sumOf instead.", ReplaceWith("this.sumOf(selector)"))\n@DeprecatedSinceKotlin(warningSince =
"1.5")\npublic inline fun CharArray.sumByDouble(selector: (Char) -> Double): Double {\n
  var sum: Double = 0.0\n  for (element in this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n
* Returns the sum of all values produced by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfDouble")\n@kotlin.internal.InlineOnly\npublic inline fun
<T> Array<out T>.sumOf(selector: (T) -> Double): Double {\n  var sum: Double = 0.toDouble()\n  for (element
in this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced
by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfDouble")\n@kotlin.internal.InlineOnly\npublic inline fun
ByteArray.sumOf(selector: (Byte) -> Double): Double
{\n  var sum: Double = 0.toDouble()\n  for (element in this) {\n    sum += selector(element)\n  }\n  return
sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the
array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfDouble")\n@kotlin.internal.InlineOnly\npublic inline fun
ShortArray.sumOf(selector: (Short) -> Double): Double {\n  var sum: Double = 0.toDouble()\n  for (element in
this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfDouble")\n@kotlin.internal.InlineOnly\npublic inline fun
IntArray.sumOf(selector: (Int) -> Double):
Double {\n  var sum: Double = 0.toDouble()\n  for (element in this) {\n    sum += selector(element)\n  }\n
return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in
the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfDouble")\n@kotlin.internal.InlineOnly\npublic inline fun
LongArray.sumOf(selector: (Long) -> Double): Double {\n  var sum: Double = 0.toDouble()\n  for (element in
this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfDouble")\n@kotlin.internal.InlineOnly\npublic inline fun
FloatArray.sumOf(selector: (Float)
-> Double): Double {\n  var sum: Double = 0.toDouble()\n  for (element in this) {\n    sum +=
selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfDouble")\n@kotlin.internal.InlineOnly\npublic inline fun
DoubleArray.sumOf(selector: (Double) -> Double): Double {\n  var sum: Double = 0.toDouble()\n  for (element
in this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced
by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

```

```

ByLambdaReturnType\n@kotlin.jvm.JvmName("\\sumOfDouble\\")\n@kotlin.internal.InlineOnly\npublic inline fun
BooleanArray.sumOf(selector:
  (Boolean) -> Double): Double {\n  var sum: Double = 0.toDouble()\n  for (element in this) {\n    sum +=
  selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
  applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\\sumOfDouble\\")\n@kotlin.internal.InlineOnly\npublic inline fun
CharArray.sumOf(selector: (Char) -> Double): Double {\n  var sum: Double = 0.toDouble()\n  for (element in
  this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by
  [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\\sumOfInt\\")\n@kotlin.internal.InlineOnly\npublic inline fun <T>
Array<out T>.sumOf(selector: (T) -> Int): Int {\n  var sum: Int = 0.toInt()\n  for (element in this) {\n    sum +=
  selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
  applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\\sumOfInt\\")\n@kotlin.internal.InlineOnly\npublic inline fun
ByteArray.sumOf(selector: (Byte) -> Int): Int {\n  var sum: Int = 0.toInt()\n  for (element in this) {\n    sum +=
  selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
  applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\\sumOfInt\\")\n@kotlin.internal.InlineOnly\npublic inline fun
ShortArray.sumOf(selector:
  (Short) -> Int): Int {\n  var sum: Int = 0.toInt()\n  for (element in this) {\n    sum += selector(element)\n  }\n
  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in
  the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\\sumOfInt\\")\n@kotlin.internal.InlineOnly\npublic inline fun
IntArray.sumOf(selector: (Int) -> Int): Int {\n  var sum: Int = 0.toInt()\n  for (element in this) {\n    sum +=
  selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
  applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\\sumOfInt\\")\n@kotlin.internal.InlineOnly\npublic inline fun
LongArray.sumOf(selector: (Long) -> Int):
  Int {\n  var sum: Int = 0.toInt()\n  for (element in this) {\n    sum += selector(element)\n  }\n  return
  sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the
  array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\\sumOfInt\\")\n@kotlin.internal.InlineOnly\npublic inline fun
FloatArray.sumOf(selector: (Float) -> Int): Int {\n  var sum: Int = 0.toInt()\n  for (element in this) {\n    sum +=
  selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
  applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\\sumOfInt\\")\n@kotlin.internal.InlineOnly\npublic inline fun
DoubleArray.sumOf(selector: (Double) -> Int): Int {\n
  var sum: Int = 0.toInt()\n  for (element in this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**
  * Returns the sum of all values produced by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

```

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ByLambdaReturnType\n@kotlin.jvm.JvmName("\sumOfInt")\n@kotlin.internal.InlineOnly\npublic inline fun
BooleanArray.sumOf(selector: (Boolean) -> Int): Int {\n  var sum: Int = 0.toInt()\n  for (element in this) {\n
sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector]
function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\sumOfInt")\n@kotlin.internal.InlineOnly\npublic inline fun
CharArray.sumOf(selector: (Char) -> Int): Int {\n  var sum: Int
= 0.toInt()\n  for (element in this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the
sum of all values produced by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\sumOfLong")\n@kotlin.internal.InlineOnly\npublic inline fun
<T> Array<out T>.sumOf(selector: (T) -> Long): Long {\n  var sum: Long = 0.toLong()\n  for (element in this)
{\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\sumOfLong")\n@kotlin.internal.InlineOnly\npublic inline fun
ByteArray.sumOf(selector: (Byte) -> Long): Long {\n  var sum: Long = 0.toLong()\n
for (element in this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all
values produced by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\sumOfLong")\n@kotlin.internal.InlineOnly\npublic inline fun
ShortArray.sumOf(selector: (Short) -> Long): Long {\n  var sum: Long = 0.toLong()\n  for (element in this) {\n
sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector]
function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\sumOfLong")\n@kotlin.internal.InlineOnly\npublic inline fun
IntArray.sumOf(selector: (Int) -> Long): Long {\n  var sum: Long = 0.toLong()\n
for (element in this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all
values produced by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\sumOfLong")\n@kotlin.internal.InlineOnly\npublic inline fun
LongArray.sumOf(selector: (Long) -> Long): Long {\n  var sum: Long = 0.toLong()\n  for (element in this) {\n
sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector]
function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\sumOfLong")\n@kotlin.internal.InlineOnly\npublic inline fun
FloatArray.sumOf(selector: (Float) -> Long): Long {\n  var sum: Long = 0.toLong()\n  for (element
in this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced
by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\sumOfLong")\n@kotlin.internal.InlineOnly\npublic inline fun
DoubleArray.sumOf(selector: (Double) -> Long): Long {\n  var sum: Long = 0.toLong()\n  for (element in this)
{\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\sumOfLong")\n@kotlin.internal.InlineOnly\npublic inline fun
BooleanArray.sumOf(selector: (Boolean) -> Long): Long {\n  var sum: Long = 0.toLong()\n  for (element

```

```

in this) {\n    sum += selector(element)\n } \n return sum\n}\n\n/**\n * Returns the sum of all values produced
by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfLong")\n@kotlin.internal.InlineOnly\npublic inline fun
CharArray.sumOf(selector: (Char) -> Long): Long {\n    var sum: Long = 0.toLong()\n    for (element in this) {\n
sum += selector(element)\n } \n return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector]
function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfUInt")\n@WasExperimental(ExperimentalUnsignedType
s::class)\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.sumOf(selector: (T) -> UInt): UInt
{\n    var sum: UInt = 0.toUInt()\n    for (element in this) {\n        sum += selector(element)\n    } \n return
sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the
array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfUInt")\n@WasExperimental(ExperimentalUnsignedType
s::class)\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.sumOf(selector: (Byte) -> UInt): UInt {\n    var
sum: UInt = 0.toUInt()\n    for (element in this) {\n        sum += selector(element)\n    } \n return sum\n}\n\n/**\n *
Returns the sum of all values produced by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfUInt")\n@WasExperimental(ExperimentalUnsignedType
s::class)\n@kotlin.internal.InlineOnly\npublic
inline fun ShortArray.sumOf(selector: (Short) -> UInt): UInt {\n    var sum: UInt = 0.toUInt()\n    for (element in
this) {\n        sum += selector(element)\n    } \n return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfUInt")\n@WasExperimental(ExperimentalUnsignedType
s::class)\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.sumOf(selector: (Int) -> UInt): UInt {\n    var
sum: UInt = 0.toUInt()\n    for (element in this) {\n        sum += selector(element)\n    } \n return sum\n}\n\n/**\n *
Returns the sum of all values produced by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfUInt")\n@WasExperimental(ExperimentalUnsignedType
s::class)\n@kotlin.internal.InlineOnly\npublic
inline fun LongArray.sumOf(selector: (Long) -> UInt): UInt {\n    var sum: UInt = 0.toUInt()\n    for (element in
this) {\n        sum += selector(element)\n    } \n return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfUInt")\n@WasExperimental(ExperimentalUnsignedType
s::class)\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.sumOf(selector: (Float) -> UInt): UInt {\n    var
sum: UInt = 0.toUInt()\n    for (element in this) {\n        sum += selector(element)\n    } \n return sum\n}\n\n/**\n *
Returns the sum of all values produced by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfUInt")\n@WasExperimental(ExperimentalUnsignedType
s::class)\n@kotlin.internal.InlineOnly\npublic
inline fun DoubleArray.sumOf(selector: (Double) -> UInt): UInt {\n    var sum: UInt = 0.toUInt()\n    for (element
in this) {\n        sum += selector(element)\n    } \n return sum\n}\n\n/**\n * Returns the sum of all values produced
by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfUInt")\n@WasExperimental(ExperimentalUnsignedType

```

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s::class)\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.sumOf(selector: (Boolean) -> UInt): UInt
{\n  var sum: UInt = 0.toUInt()\n  for (element in this) {\n    sum += selector(element)\n  }\n  return
sum\n}\n\n/**\n * Returns the sum of all values
produced by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfUInt")\n@WasExperimental(ExperimentalUnsignedType
s::class)\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.sumOf(selector: (Char) -> UInt): UInt {\n  var
sum: UInt = 0.toUInt()\n  for (element in this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n *
Returns the sum of all values produced by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfULong")\n@WasExperimental(ExperimentalUnsignedTy
pes::class)\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.sumOf(selector: (T) -> ULong):
ULong {\n  var sum: ULong = 0.toULong()\n  for (element in this)
{\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfULong")\n@WasExperimental(ExperimentalUnsignedTy
pes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.sumOf(selector: (Byte) -> ULong): ULong
{\n  var sum: ULong = 0.toULong()\n  for (element in this) {\n    sum += selector(element)\n  }\n  return
sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the
array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfULong")\n@WasExperimental(ExperimentalUnsignedTy
pes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.sumOf(selector:
(Short) -> ULong): ULong {\n  var sum: ULong = 0.toULong()\n  for (element in this) {\n    sum +=
selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfULong")\n@WasExperimental(ExperimentalUnsignedTy
pes::class)\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.sumOf(selector: (Int) -> ULong): ULong {\n
var sum: ULong = 0.toULong()\n  for (element in this) {\n    sum += selector(element)\n  }\n  return
sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the
array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfULong")\n@WasExperimental(ExperimentalUnsignedTy
pes::class)\n@kotlin.internal.InlineOnly\npublic
inline fun LongArray.sumOf(selector: (Long) -> ULong): ULong {\n  var sum: ULong = 0.toULong()\n  for
(element in this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values
produced by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfULong")\n@WasExperimental(ExperimentalUnsignedTy
pes::class)\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.sumOf(selector: (Float) -> ULong): ULong
{\n  var sum: ULong = 0.toULong()\n  for (element in this) {\n    sum += selector(element)\n  }\n  return
sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the
array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfULong")\n@WasExperimental(ExperimentalUnsignedTy
pes::class)\n@kotlin.internal.InlineOnly\npublic

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inline fun DoubleArray.sumOf(selector: (Double) -> ULong): ULong {
    var sum: ULong = 0.toULong()
    for (element in this) {
        sum += selector(element)
    }
    return sum
}
// Returns the sum of all values produced by [selector] function applied to each element in the array.

@SinceKotlin("1.5")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.jvm.JvmName("sumOfULong")
@WasExperimental(ExperimentalUnsignedTypes::class)
@kotlin.internal.InlineOnly
public inline fun BooleanArray.sumOf(selector: (Boolean) -> ULong): ULong {
    var sum: ULong = 0.toULong()
    for (element in this) {
        sum += selector(element)
    }
    return sum
}
// Returns the sum of all values produced by [selector] function applied to each element in the array.

@SinceKotlin("1.5")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.jvm.JvmName("sumOfULong")
@WasExperimental(ExperimentalUnsignedTypes::class)
@kotlin.internal.InlineOnly
public inline fun CharArray.sumOf(selector: (Char) -> ULong): ULong {
    var sum: ULong = 0.toULong()
    for (element in this) {
        sum += selector(element)
    }
    return sum
}
// Returns an original collection containing all the non-`null` elements, throwing an [IllegalArgumentException] if there are any `null` elements.

public fun <T : Any> Array<T?>.requireNonNulls(): Array<T> {
    for (element in this) {
        if (element == null) {
            throw IllegalArgumentException("null element found in $this.")
        }
    }
}

@Suppress("UNCHECKED_CAST")
return this as Array<T>
}
// Splits the original array into pair of lists,
// where *first* list contains elements for which [predicate] yielded `true`,
// while *second* list contains elements for which [predicate] yielded `false`.

@sample
samples.collections.Arrays.Transformations.partitionArrayOfPrimitives

public inline fun <T> Array<out T>.partition(predicate: (T) -> Boolean): Pair<List<T>, List<T>> {
    val first = ArrayList<T>()
    val second = ArrayList<T>()
    for (element in this) {
        if (predicate(element)) {
            first.add(element)
        } else {
            second.add(element)
        }
    }
    return Pair(first, second)
}
// Splits the original array into pair of lists,
// where *first* list contains elements for which [predicate] yielded `true`,
// while *second* list contains elements for which [predicate] yielded `false`.

@sample
samples.collections.Arrays.Transformations.partitionArrayOfPrimitives

public inline fun ByteArray.partition(predicate: (Byte) -> Boolean): Pair<List<Byte>, List<Byte>> {
    val first = ArrayList<Byte>()
    val second = ArrayList<Byte>()
    for (element in this) {
        if (predicate(element)) {
            first.add(element)
        } else {
            second.add(element)
        }
    }
    return Pair(first, second)
}
// Splits the original array into pair of lists,
// where *first* list contains elements for which [predicate] yielded `true`,
// while *second* list contains elements for which [predicate] yielded `false`.

@sample
samples.collections.Arrays.Transformations.partitionArrayOfPrimitives

public inline fun ShortArray.partition(predicate: (Short) -> Boolean): Pair<List<Short>, List<Short>> {
    val first = ArrayList<Short>()
    val second = ArrayList<Short>()
    for (element in this) {
        if (predicate(element)) {
            first.add(element)
        } else {
            second.add(element)
        }
    }
    return Pair(first, second)
}
// Splits the original array into pair of lists,
// where *first* list contains elements for which [predicate] yielded `true`,
// while *second* list contains elements for which [predicate] yielded `false`.

@sample
samples.collections.Arrays.Transformations.partitionArrayOfPrimitives

public inline fun IntArray.partition(predicate: (Int) -> Boolean): Pair<List<Int>, List<Int>> {
    val first = ArrayList<Int>()
    val second = ArrayList<Int>()
    for (element in this) {
        if (predicate(element)) {
            first.add(element)
        } else {
            second.add(element)
        }
    }
    return Pair(first, second)
}
// Splits the original array into pair of lists,
// where *first* list contains elements for which [predicate] yielded `true`,
// while *second* list contains elements for which [predicate] yielded `false`.

@sample
samples.collections.Arrays.Transformations.partitionArrayOfPrimitives

public inline fun LongArray.partition(predicate:

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(Long) -> Boolean): Pair<List<Long>, List<Long>> {\n  val first = ArrayList<Long>()\n  val second =
ArrayList<Long>()\n  for (element in this) {\n    if (predicate(element)) {\n      first.add(element)\n    } else
{\n      second.add(element)\n    }\n  }\n  return Pair(first, second)\n}\n\n/**\n * Splits the original array into
pair of lists,\n * where *first* list contains elements for which [predicate] yielded `true`,\n * while *second* list
contains elements for which [predicate] yielded `false`.\n * \n * @sample
samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline fun
FloatArray.partition(predicate: (Float) -> Boolean): Pair<List<Float>, List<Float>> {\n  val first =
ArrayList<Float>()\n  val second = ArrayList<Float>()\n  for (element in this) {\n    if (predicate(element)) {\n
      first.add(element)\n    } else {\n      second.add(element)\n    }\n  }\n  return
Pair(first, second)\n}\n\n/**\n * Splits the original array into pair of lists,\n * where *first* list contains elements
for which [predicate] yielded `true`,\n * while *second* list contains elements for which [predicate] yielded
`false`.\n * \n * @sample samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline
fun DoubleArray.partition(predicate: (Double) -> Boolean): Pair<List<Double>, List<Double>> {\n  val first =
ArrayList<Double>()\n  val second = ArrayList<Double>()\n  for (element in this) {\n    if (predicate(element))
{\n      first.add(element)\n    } else {\n      second.add(element)\n    }\n  }\n  return Pair(first,
second)\n}\n\n/**\n * Splits the original array into pair of lists,\n * where *first* list contains elements for which
[predicate] yielded `true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n * \n *
@sample samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline fun BooleanArray.partition(predicate: (Boolean) -> Boolean): Pair<List<Boolean>,
List<Boolean>> {\n  val first = ArrayList<Boolean>()\n  val second = ArrayList<Boolean>()\n  for (element in
this) {\n    if (predicate(element)) {\n      first.add(element)\n    } else {\n      second.add(element)\n    }\n
  }\n  return Pair(first, second)\n}\n\n/**\n * Splits the original array into pair of lists,\n * where *first* list
contains elements for which [predicate] yielded `true`,\n * while *second* list contains elements for which
[predicate] yielded `false`.\n * \n * @sample
samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline fun
CharArray.partition(predicate: (Char) -> Boolean): Pair<List<Char>, List<Char>> {\n  val first =
ArrayList<Char>()\n  val second = ArrayList<Char>()\n  for (element in this) {\n    if (predicate(element)) {\n
      first.add(element)\n    } else {\n      second.add(element)\n    }\n  }\n  return Pair(first, second)\n}\n\n/**\n * Returns a list of
pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has
length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic
infix fun <T, R> Array<out T>.zip(other: Array<out R>): List<Pair<T, R>> {\n  return zip(other) { t1, t2 -> t1 to
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samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> ByteArray.zip(other: Array<out R>):
List<Pair<Byte, R>> {\n  return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the
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samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> IntArray.zip(other: Array<out R>):
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collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R>
LongArray.zip(other: Array<out R>): List<Pair<Long, R>> {\n  return zip(other) { t1, t2 ->
t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the
same index.\n * The returned list has length of the shortest collection.\n * \n * @sample

```

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samples.collections.Iterables.Operations.zipIterable\n *\npublic infix fun <R> FloatArray.zip(other: Array<out
R>): List<Pair<Float, R>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from
the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest
collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n *\npublic infix fun <R>
DoubleArray.zip(other: Array<out R>): List<Pair<Double, R>> {\n    return zip(other) { t1, t2 -> t1 to t2
}\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same
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*\npublic infix fun <R> BooleanArray.zip(other: Array<out R>): List<Pair<Boolean, R>> {\n    return zip(other) {
t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array
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List<Pair<Char, R>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values built from the
elements of `this` array and the [other] array with the same index\n * using the provided [transform] function
applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n *\npublic inline fun <T, R, V> Array<out
T>.zip(other: Array<out R>, transform: (a: T, b: R) -> V):
List<V> {\n    val size = minOf(size, other.size)\n    val list = ArrayList<V>(size)\n    for (i in 0 until size) {\n
list.add(transform(this[i], other[i]))\n    }\n    return list\n}\n\n/**\n * Returns a list of values built from the elements
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LongArray.zip(other: Array<out R>, transform: (a: Long, b: R) -> V): List<V> {\n    val size = minOf(size,
other.size)\n    val list = ArrayList<V>(size)\n    for (i in 0 until size) {\n        list.add(transform(this[i],
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*\npublic inline fun <R, V> FloatArray.zip(other: Array<out R>, transform: (a: Float, b: R) -> V): List<V> {\n
val size = minOf(size, other.size)\n    val list = ArrayList<V>(size)\n    for (i in 0 until size) {\n

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list.add(transform(this[i], other[i]))\n } \n return list\n\n\n\n * Returns a list of values built from the elements
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other.size)\n val list = ArrayList<V>(size)\n for (i in 0 until size) {\n list.add(transform(this[i], other[i]))\n
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*\npublic infix fun <R> LongArray.zip(other: Iterable<R>): List<Pair<Long, R>> {\n return zip(other) { t1, t2 -
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\npublic inline fun <T, R, V> Array<out T>.zip(other: Iterable<R>, transform: (a: T, b: R) -> V): List<V> {\n
val arraySize = size\n    val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n    var i =
0\n    for (element in other) {\n        if (i >= arraySize) break\n        list.add(transform(this[i++], element))\n    }\n
return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with
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fun <R, V> FloatArray.zip(other: Iterable<R>, transform: (a: Float, b: R) -> V): List<V> {\n    val arraySize =
size\n    val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n    var i = 0\n    for (element
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samples.collections.Iterables.Operations.zipIterableWithTransform\n *
\npublic inline fun <R, V>

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DoubleArray.zip(other: Iterable<R>, transform: (a: Double, b: R) -> V): List<V> {\n  val arraySize = size\n  val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n  var i = 0\n  for (element in other) {\n    if (i >= arraySize) break\n    list.add(transform(this[i++], element))\n  }\n  return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V> BooleanArray.zip(other: Iterable<R>, transform: (a: Boolean, b: R) -> V): List<V> {\n  val arraySize = size\n  val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n  var i = 0\n  for (element in other) {\n    if (i >= arraySize) break\n    list.add(transform(this[i++], 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fun ByteArray.zip(other: ByteArray): List<Pair<Byte, Byte>> {\n  return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun ShortArray.zip(other: ShortArray): List<Pair<Short, Short>> {\n  return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun IntArray.zip(other: IntArray): List<Pair<Int, Int>> {\n  return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun LongArray.zip(other: LongArray): List<Pair<Long, Long>> {\n  return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun FloatArray.zip(other: FloatArray): List<Pair<Float, Float>> {\n  return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun DoubleArray.zip(other: DoubleArray): List<Pair<Double, Double>> {\n  return zip(other) { t1, t2 -> t1 to 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length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */

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*^public inline fun <V> ByteArray.zip(other: ByteArray, transform: (a: Byte, b: Byte) -> V): List<V> {\n  val
size = minOf(size, other.size)\n  val list = ArrayList<V>(size)\n  for (i in 0 until size) {\n
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samples.collections.Iterables.Operations.zipIterableWithTransform\n */^public inline fun <V>
DoubleArray.zip(other: DoubleArray, transform: (a: Double, b: Double) -> V): List<V> {\n  val size = minOf(size,
other.size)\n  val list = ArrayList<V>(size)\n  for (i in 0 until size) {\n    list.add(transform(this[i], other[i]))\n
}\n  return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using
the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest
array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */^public inline fun
<V> BooleanArray.zip(other: BooleanArray, transform: (a: Boolean, b: Boolean) -> V): List<V> {\n  val size =
minOf(size, other.size)\n  val list = ArrayList<V>(size)\n  for (i in 0 until size) {\n    list.add(transform(this[i],
other[i]))\n  }\n  return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the
[other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n *
The returned list has length of the shortest array.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n */^public inline fun <V>
CharArray.zip(other:
CharArray, transform: (a: Char, b: Char) -> V): List<V> {\n  val size = minOf(size, other.size)\n  val list =
ArrayList<V>(size)\n  for (i in 0 until size) {\n    list.add(transform(this[i], other[i]))\n  }\n  return
list\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix]
and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in
which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to

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\"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n * \npublic fun <T, A :
Appendable> Array<out T>.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix:
CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((T) -> CharSequence)? = null): A
{\n  buffer.append(prefix)\n  var count = 0\n  for
  (element in this) {\n    if (++count > 1) buffer.append(separator)\n    if (limit < 0 || count <= limit) {\n
buffer.appendElement(element, transform)\n    } else break\n  }\n  if (limit >= 0 && count > limit)
buffer.append(truncated)\n  buffer.append(postfix)\n  return buffer\n}\n\n/**\n * Appends the string from all the
elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection
could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will
be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample
samples.collections.Collections.Transformations.joinTo\n * \npublic fun <A : Appendable>
ByteArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence =
\"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Byte) -> CharSequence)? = null): A {\n
  buffer.append(prefix)\n  var count = 0\n  for (element in this) {\n    if (++count > 1)
buffer.append(separator)\n    if (limit < 0 || count <= limit) {\n      if (transform != null)\n
buffer.append(transform(element))\n      else\n        buffer.append(element.toString())\n    } else break\n
}\n  if (limit >= 0 && count > limit) buffer.append(truncated)\n  buffer.append(postfix)\n  return
buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given
[prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of
[limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which
defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n * \npublic fun <A :
Appendable> ShortArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix:
CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform:
((Short) -> CharSequence)? = null): A {\n  buffer.append(prefix)\n  var count = 0\n  for (element in this) {\n
if (++count > 1) buffer.append(separator)\n    if (limit < 0 || count <= limit) {\n      if (transform != null)\n
buffer.append(transform(element))\n      else\n        buffer.append(element.toString())\n    } else
break\n  }\n  if (limit >= 0 && count > limit) buffer.append(truncated)\n  buffer.append(postfix)\n  return
buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given
[prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of
[limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which
defaults to \"...\").\n * \n * @sample
samples.collections.Collections.Transformations.joinTo\n * \npublic fun <A : Appendable> IntArray.joinTo(buffer:
A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1,
truncated: CharSequence = \"...\", transform: ((Int) -> CharSequence)? = null): A {\n  buffer.append(prefix)\n  var
count = 0\n  for (element in this) {\n    if (++count > 1) buffer.append(separator)\n    if (limit < 0 || count <=
limit) {\n      if (transform != null)\n        buffer.append(transform(element))\n      else\n
buffer.append(element.toString())\n    } else break\n  }\n  if (limit >= 0 && count > limit)
buffer.append(truncated)\n  buffer.append(postfix)\n  return buffer\n}\n\n/**\n * Appends the string from all the
elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection
could be huge, you can specify a non-negative value of [limit],
in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults
to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n * \npublic fun <A :
Appendable> LongArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix:
CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Long) -> CharSequence)? =
null): A {\n  buffer.append(prefix)\n  var count = 0\n  for (element in this) {\n    if (++count > 1)
buffer.append(separator)\n    if (limit < 0 || count <= limit) {\n      if (transform != null)\n
buffer.append(transform(element))\n      else\n        buffer.append(element.toString())\n    } else break\n
}\n  if (limit >= 0 && count > limit) buffer.append(truncated)\n  buffer.append(postfix)\n  return

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buffer\n}\n\n/**\n * Appends the string from all the elements separated using
 [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can
 specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed
 by the [truncated] string (which defaults to \"...\").\n * \n * @sample
samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A : Appendable>
FloatArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence =
 \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Float) -> CharSequence)? = null): A {\n
buffer.append(prefix)\n    var count = 0\n    for (element in this) {\n        if (++count > 1) buffer.append(separator)\n
        if (limit < 0 || count <= limit) {\n            if (transform != null)\n                buffer.append(transform(element))\n            else\n                buffer.append(element.toString())\n        } else break\n    }\n    if (limit >=
0 && count > limit) buffer.append(truncated)\n    buffer.append(postfix)\n    return buffer\n}\n\n/**\n * Appends
the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n *
\n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first
 [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample
samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A : Appendable>
DoubleArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix:
CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Double) -> CharSequence)? =
null): A {\n    buffer.append(prefix)\n    var count = 0\n    for (element in this) {\n        if (++count > 1)
buffer.append(separator)\n        if (limit < 0 || count <= limit) {\n            if (transform != null)\n                buffer.append(transform(element))\n            else\n                buffer.append(element.toString())\n        } else
break\n    }\n    if (limit >= 0 && count > limit) buffer.append(truncated)\n    buffer.append(postfix)\n    return
buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given
 [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of
 [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which
 defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A :
Appendable> BooleanArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\",
postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Boolean) ->
CharSequence)? = null): A {\n    buffer.append(prefix)\n    var count = 0\n
for (element in this) {\n        if (++count > 1) buffer.append(separator)\n        if (limit < 0 || count <= limit) {\n
            if (transform != null)\n                buffer.append(transform(element))\n            else\n                buffer.append(element.toString())\n        } else break\n    }\n    if (limit >= 0 && count > limit)
buffer.append(truncated)\n    buffer.append(postfix)\n    return buffer\n}\n\n/**\n * Appends the string from all the
elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection
could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will
be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample
samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A : Appendable>
CharArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence =
 \"\",
limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Char) -> CharSequence)? = null): A {\n
buffer.append(prefix)\n    var count = 0\n    for (element in this) {\n        if (++count > 1) buffer.append(separator)\n
        if (limit < 0 || count <= limit) {\n            if (transform != null)\n                buffer.append(transform(element))\n            else\n                buffer.append(element)\n        } else break\n    }\n    if (limit >= 0 && count > limit)
buffer.append(truncated)\n    buffer.append(postfix)\n    return buffer\n}\n\n/**\n * Creates a string from all the
elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection
could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will
be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample
samples.collections.Collections.Transformations.joinToString\n */\npublic

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fun <T> Array<out T>.joinToString(separator: CharSequence = '\', '\', prefix: CharSequence = \"\", postfix:
CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((T) -> CharSequence)? = null):
String {\n  return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated,
transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the
given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value
of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string
(which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n
*/\npublic fun ByteArray.joinToString(separator: CharSequence = '\', '\', prefix: CharSequence = \"\", postfix:
CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Byte) -> CharSequence)?
= null): String {\n  return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated,
transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the
given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value
of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string
(which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n
*/\npublic fun ShortArray.joinToString(separator: CharSequence = '\', '\', prefix: CharSequence = \"\", postfix:
CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Short) -> CharSequence)? =
null): String {\n  return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated,
transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the
given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative
value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string
(which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n
*/\npublic fun IntArray.joinToString(separator: CharSequence = '\', '\', prefix: CharSequence = \"\", postfix:
CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Int) -> CharSequence)? = null):
String {\n  return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated,
transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the
given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value
of [limit], in which case only the first [limit]\n * elements will be appended, followed by the
[truncated] string (which defaults to \"...\").\n * \n * @sample
samples.collections.Collections.Transformations.joinToString\n
*/\npublic fun LongArray.joinToString(separator:
CharSequence = '\', '\', prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated:
CharSequence = \"...\", transform: ((Long) -> CharSequence)? = null): String {\n  return joinTo(StringBuilder(),
separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates a string from all the elements
separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be
huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be
appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample
samples.collections.Collections.Transformations.joinToString\n
*/\npublic fun FloatArray.joinToString(separator:
CharSequence = '\', '\', prefix: CharSequence
= \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Float) ->
CharSequence)? = null): String {\n  return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated,
transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the
given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value
of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string
(which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n
*/\npublic fun DoubleArray.joinToString(separator: CharSequence = '\', '\', prefix: CharSequence = \"\", postfix:
CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Double) -> CharSequence)? =
null): String {\n  return joinTo(StringBuilder(), separator, prefix, postfix,
limit, truncated, transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated using
[separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can

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Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n *
@sample samples.collections.Sequences.Building.sequenceFromArray\n *^\npublic fun LongArray.asSequence():
Sequence<Long> {\n if (isEmpty()) return emptySequence()\n return Sequence { this.iterator() }\n}\n\n/**\n *
Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n *
@sample samples.collections.Sequences.Building.sequenceFromArray\n *^\npublic fun FloatArray.asSequence():
Sequence<Float> {\n if (isEmpty()) return emptySequence()\n return Sequence { this.iterator() }\n}\n\n/**\n *
Creates a [Sequence] instance that
wraps the original array returning its elements when being iterated.\n * \n * @sample
samples.collections.Sequences.Building.sequenceFromArray\n *^\npublic fun DoubleArray.asSequence():
Sequence<Double> {\n if (isEmpty()) return emptySequence()\n return Sequence { this.iterator() }\n}\n\n/**\n *
Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n *
@sample samples.collections.Sequences.Building.sequenceFromArray\n *^\npublic fun
BooleanArray.asSequence(): Sequence<Boolean> {\n if (isEmpty()) return emptySequence()\n return Sequence
{ this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original array returning its elements
when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromArray\n *^\npublic
fun CharArray.asSequence(): Sequence<Char> {\n if (isEmpty()) return emptySequence()\n return Sequence {
this.iterator() }\n}\n\n/**\n * Returns an average value
of elements in the array.\n *^\n@kotlin.jvm.JvmName("averageOfByte")\npublic fun Array<out Byte>.average():
Double {\n var sum: Double = 0.0\n var count: Int = 0\n for (element in this) {\n sum += element\n
++count\n }\n return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of
elements in the array.\n *^\n@kotlin.jvm.JvmName("averageOfShort")\npublic fun Array<out Short>.average():
Double {\n var sum: Double = 0.0\n var count: Int = 0\n for (element in this) {\n sum += element\n
++count\n }\n return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of
elements in the array.\n *^\n@kotlin.jvm.JvmName("averageOfInt")\npublic fun Array<out Int>.average(): Double
{\n var sum: Double = 0.0\n var count: Int = 0\n for (element in this) {\n sum += element\n ++count\n
}\n return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n *^\n@kotlin.jvm.JvmName("averageOfLong")\npublic fun
Array<out Long>.average(): Double {\n var sum: Double = 0.0\n var count: Int = 0\n for (element in this) {\n
sum += element\n ++count\n }\n return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n *
Returns an average value of elements in the array.\n *^\n@kotlin.jvm.JvmName("averageOfFloat")\npublic fun
Array<out Float>.average(): Double {\n var sum: Double = 0.0\n var count: Int = 0\n for (element in this) {\n
sum += element\n ++count\n }\n return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n *
Returns an average value of elements in the array.\n *^\n@kotlin.jvm.JvmName("averageOfDouble")\npublic fun
Array<out Double>.average(): Double {\n var sum: Double = 0.0\n var count: Int = 0\n for (element in this)
{\n sum += element\n ++count\n }\n return if (count == 0) Double.NaN
else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n *^\npublic fun
ByteArray.average(): Double {\n var sum: Double = 0.0\n var count: Int = 0\n for (element in this) {\n
sum += element\n ++count\n }\n return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns
an average value of elements in the array.\n *^\npublic fun ShortArray.average(): Double {\n var sum: Double =
0.0\n var count: Int = 0\n for (element in this) {\n sum += element\n ++count\n }\n return if (count
== 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n *^\npublic
fun IntArray.average(): Double {\n var sum: Double = 0.0\n var count: Int = 0\n for (element in this) {\n
sum += element\n ++count\n }\n return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns
an average value of elements in the array.\n *^\npublic fun LongArray.average():
Double {\n var sum: Double = 0.0\n var count: Int = 0\n for (element in this) {\n sum += element\n
++count\n }\n return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of
elements in the array.\n *^\npublic fun FloatArray.average(): Double {\n var sum: Double = 0.0\n var count: Int
= 0\n for (element in this) {\n sum += element\n ++count\n }\n return if (count == 0) Double.NaN

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else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\npublic fun
DoubleArray.average(): Double {\n    var sum: Double = 0.0\n    var count: Int = 0\n    for (element in this) {\n
sum += element\n        ++count\n    }\n    return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns
the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName("sumOfByte")\npublic fun Array<out
Byte>.sum(): Int {\n    var sum: Int = 0\n    for (element in this) {\n
sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n
*/\n@kotlin.jvm.JvmName("sumOfShort")\npublic fun Array<out Short>.sum(): Int {\n    var sum: Int = 0\n    for
(element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the
array.\n */\n@kotlin.jvm.JvmName("sumOfInt")\npublic fun Array<out Int>.sum(): Int {\n    var sum: Int = 0\n
for (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in
the array.\n */\n@kotlin.jvm.JvmName("sumOfLong")\npublic fun Array<out Long>.sum(): Long {\n    var sum:
Long = 0L\n    for (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of
all elements in the array.\n */\n@kotlin.jvm.JvmName("sumOfFloat")\npublic fun Array<out Float>.sum(): Float
{\n    var sum: Float = 0.0f\n    for (element in this) {\n        sum += element\n    }\n
return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName("sumOfDouble")\npublic fun Array<out Double>.sum(): Double {\n    var sum:
Double = 0.0\n    for (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of
all elements in the array.\n */\npublic fun ByteArray.sum(): Int {\n    var sum: Int = 0\n    for (element in this) {\n
sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\npublic fun
ShortArray.sum(): Int {\n    var sum: Int = 0\n    for (element in this) {\n        sum += element\n    }\n    return
sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\npublic fun IntArray.sum(): Int {\n    var sum:
Int = 0\n    for (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all
elements in the array.\n */\npublic fun LongArray.sum(): Long {\n    var sum: Long = 0L\n    for (element
in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n
*/\npublic fun FloatArray.sum(): Float {\n    var sum: Float = 0.0f\n    for (element in this) {\n        sum +=
element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\npublic fun
DoubleArray.sum(): Double {\n    var sum: Double = 0.0\n    for (element in this) {\n        sum += element\n    }\n
return sum\n}\n\n"/**\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n
*/\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("RangesKt")\n\npackage
kotlin.ranges\n\n/\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\nimport kotlin.random.*\n\n/**\n * Returns a
random
element from this range.\n * \n * @throws IllegalArgumentException if this range is empty.\n
*/\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline fun IntRange.random(): Int {\n    return
random(Random)\n}\n\n/**\n * Returns a random element from this range.\n * \n * @throws
IllegalArgumentException if this range is empty.\n */\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic
inline fun LongRange.random(): Long {\n    return random(Random)\n}\n\n/**\n * Returns a random element from
this range using the specified source of
randomness.\n * \n * @throws IllegalArgumentException if this range is empty.\n
*/\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline fun CharRange.random(): Char {\n    return
random(Random)\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness.\n * \n
* @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin("1.3")\npublic fun
IntRange.random(random: Random): Int {\n    try {\n        return
random.nextInt(this)\n    } catch (e: IllegalArgumentException) {\n        throw NoSuchElementException(e.message)\n    }\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness.\n * \n
* @throws
IllegalArgumentException if this range is empty.\n */\n@SinceKotlin("1.3")\npublic fun
LongRange.random(random: Random): Long {\n    try {\n        return random.nextLong(this)\n    } catch (e:

```



Checks if the specified [value] belongs to this range.\n \*\n@Deprecated(\nThis  
`contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be  
removed.\n)\n@DeprecatedSinceKotlin(warningSince = \n1.3\n, errorSince = \n1.4\n, hiddenSince =  
\n1.5\n)\n@kotlin.jvm.JvmName(\nfloatRangeContains\n)\npublic operator fun ClosedRange<Float>.contains(value:  
Byte): Boolean {\n return contains(value.toFloat())\n}\n\n\*\*\n \* Checks if the specified [value] belongs to this  
range.\n \*\n@Deprecated(\nThis `contains` operation mixing integer and floating point arguments has ambiguous  
semantics and is going to be removed.\n)\n@DeprecatedSinceKotlin(warningSince = \n1.3\n, errorSince = \n1.4\n,  
hiddenSince = \n1.5\n)\n@kotlin.jvm.JvmName(\nintRangeContains\n)\npublic operator fun  
ClosedRange<Int>.contains(value: Double): Boolean {\n return value.toIntExactOrNull().let { if (it != null)  
contains(it) else false }\n}\n\n\*\*\n \* Checks if the specified [value] belongs to this range.\n  
\*\n@Deprecated(\nThis `contains` operation  
mixing integer and floating point arguments has ambiguous semantics and is going to be  
removed.\n)\n@DeprecatedSinceKotlin(warningSince = \n1.3\n, errorSince = \n1.4\n, hiddenSince =  
\n1.5\n)\n@kotlin.jvm.JvmName(\nlongRangeContains\n)\npublic operator fun ClosedRange<Long>.contains(value:  
Double): Boolean {\n return value.toLongExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n\*\*\n \*  
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Double): Boolean {\n return value.toByteExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n\*\*\n \*  
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\n1.5\n)\n@kotlin.jvm.JvmName(\nshortRangeContains\n)\npublic operator fun  
ClosedRange<Short>.contains(value: Double): Boolean {\n return value.toShortExactOrNull().let { if (it != null)  
contains(it) else false }\n}\n\n\*\*\n \* Checks if the specified [value] belongs to this range.\n  
\*\n@kotlin.jvm.JvmName(\nfloatRangeContains\n)\npublic operator fun ClosedRange<Float>.contains(value:  
Double): Boolean {\n return contains(value.toFloat())\n}\n\n\*\*\n \* Checks if the specified [value] belongs to this  
range.\n \*\n@Deprecated(\nThis `contains` operation mixing integer and floating point arguments has ambiguous  
semantics and is going to be removed.\n)\n@DeprecatedSinceKotlin(warningSince = \n1.3\n, errorSince = \n1.4\n,  
hiddenSince = \n1.5\n)\n@kotlin.jvm.JvmName(\nintRangeContains\n)\npublic  
operator fun ClosedRange<Int>.contains(value: Float): Boolean {\n return value.toIntExactOrNull().let { if (it !=  
null) contains(it) else false }\n}\n\n\*\*\n \* Checks if the specified [value] belongs to this range.\n  
\*\n@Deprecated(\nThis `contains` operation mixing integer and floating point arguments has ambiguous semantics  
and is going to be removed.\n)\n@DeprecatedSinceKotlin(warningSince = \n1.3\n, errorSince = \n1.4\n, hiddenSince  
= \n1.5\n)\n@kotlin.jvm.JvmName(\nlongRangeContains\n)\npublic operator fun  
ClosedRange<Long>.contains(value: Float): Boolean {\n return value.toLongExactOrNull().let { if (it != null)  
contains(it) else false }\n}\n\n\*\*\n \* Checks if the specified [value] belongs to this range.\n  
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= \n1.5\n)\n@kotlin.jvm.JvmName(\nshortRangeContains\n)\npublic operator fun  
ClosedRange<Short>.contains(value: Float): Boolean {\n return value.toShortExactOrNull().let { if (it != null)  
contains(it) else false }\n}\n\n\*\*\n \* Checks if the specified [value] belongs to this range.\n

```

*\/n@kotlin.jvm.JvmName("\\doubleRangeContains\\")\\npublic operator fun ClosedRange<Double>.contains(value:
Float): Boolean {\\n    return contains(value.toDouble())\\n}\\n\\n/**\\n * Checks if the specified [value] belongs to this
range.\\n
*\/n@kotlin.jvm.JvmName("\\longRangeContains\\")\\npublic operator fun ClosedRange<Long>.contains(value: Int):
Boolean {\\n    return contains(value.toLong())\\n}\\n\\n/**\\n * Checks if the specified [value] belongs to this range.\\n
*\/n@kotlin.jvm.JvmName("\\byteRangeContains\\")\\npublic operator fun ClosedRange<Byte>.contains(value: Int):
Boolean {\\n    return value.toByteExactOrNull().let { if (it != null) contains(it) else false }\\n}\\n\\n/**\\n * Checks if
the specified [value] belongs to this range.\\n
*\/n@kotlin.jvm.JvmName("\\shortRangeContains\\")\\npublic operator
fun ClosedRange<Short>.contains(value: Int): Boolean {\\n    return value.toShortExactOrNull().let { if (it != null)
contains(it) else false }\\n}\\n\\n/**\\n * Checks if the specified [value] belongs to this range.\\n
*\/n@Deprecated("\\This `contains` operation mixing integer and floating point arguments has ambiguous semantics
and is going to be removed.")\\n@DeprecatedSinceKotlin(warningSince = "\\1.3\\", errorSince = "\\1.4\\", hiddenSince
= "\\1.5\\")\\n@kotlin.jvm.JvmName("\\doubleRangeContains\\")\\npublic operator fun
ClosedRange<Double>.contains(value: Int): Boolean {\\n    return contains(value.toDouble())\\n}\\n\\n/**\\n * Checks
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\\"1.5\\")\\n@kotlin.jvm.JvmName("\\floatRangeContains\\")\\npublic operator fun ClosedRange<Float>.contains(value:
Int): Boolean {\\n    return contains(value.toFloat())\\n}\\n\\n/**\\n * Checks if the specified [value] belongs to this
range.\\n
*\/n@kotlin.jvm.JvmName("\\intRangeContains\\")\\npublic operator fun ClosedRange<Int>.contains(value:
Long): Boolean {\\n    return value.toIntExactOrNull().let { if (it != null) contains(it) else false }\\n}\\n\\n/**\\n *
Checks if the specified [value] belongs to this range.\\n
*\/n@kotlin.jvm.JvmName("\\byteRangeContains\\")\\npublic
operator fun ClosedRange<Byte>.contains(value: Long): Boolean {\\n    return value.toByteExactOrNull().let { if (it
!= null) contains(it) else false }\\n}\\n\\n/**\\n * Checks if the specified [value] belongs to this range.\\n
*\/n@kotlin.jvm.JvmName("\\shortRangeContains\\")\\npublic operator fun ClosedRange<Short>.contains(value:
Long): Boolean {\\n    return value.toShortExactOrNull().let { if (it != null) contains(it) else false }\\n}\\n\\n/**\\n *
Checks if the specified [value] belongs to this range.\\n
*\/n@Deprecated("\\This `contains` operation mixing integer
and floating point arguments has ambiguous semantics and is going to be
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\\"1.5\\")\\n@kotlin.jvm.JvmName("\\doubleRangeContains\\")\\npublic operator fun
ClosedRange<Double>.contains(value: Long): Boolean {\\n    return contains(value.toDouble())\\n}\\n\\n/**\\n *
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= "\\1.5\\")\\n@kotlin.jvm.JvmName("\\floatRangeContains\\")\\npublic operator fun
ClosedRange<Float>.contains(value: Long): Boolean {\\n    return contains(value.toFloat())\\n}\\n\\n/**\\n * Checks if
the specified [value] belongs to this range.\\n
*\/n@kotlin.jvm.JvmName("\\intRangeContains\\")\\npublic operator fun
ClosedRange<Int>.contains(value: Short): Boolean {\\n    return contains(value.toInt())\\n}\\n\\n/**\\n * Checks if the
specified [value] belongs to this range.\\n
*\/n@kotlin.jvm.JvmName("\\longRangeContains\\")\\npublic operator fun
ClosedRange<Long>.contains(value: Short): Boolean {\\n    return contains(value.toLong())\\n}\\n\\n/**\\n * Checks if
the specified [value] belongs to this range.\\n
*\/n@kotlin.jvm.JvmName("\\byteRangeContains\\")\\npublic operator
fun ClosedRange<Byte>.contains(value:
Short): Boolean {\\n    return value.toByteExactOrNull().let { if (it != null) contains(it) else false }\\n}\\n\\n/**\\n *
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*\/n@Deprecated("\\This `contains` operation mixing integer
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```



Checks if the specified [value] belongs to this range.  
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`@kotlin.jvm.JvmName("floatRangeContains")`  
`public operator fun ClosedRange<Float>.contains(value: Short): Boolean {`  
`return contains(value.toFloat())`  
`}`  
`n/n/**`  
`n * Returns a progression from this value down to the specified [to] value with the step -1.`  
`n * n * The [to] value should be less than or equal to `this` value.`  
`n * If the [to] value is greater than `this` value the returned progression is empty.`  
`n */`  
`public infix fun Int.downTo(to: Byte): IntProgression {`  
`return IntProgression.fromClosedRange(this, to.toInt(), -1)`  
`}`  
`n/n/**`  
`n * Returns a progression from this value down to the specified [to] value with the step -1.`  
`n * n * The [to] value should be less than or equal to `this` value.`  
`n * If the [to] value is greater than `this` value the returned progression is empty.`  
`n */`  
`public infix fun Long.downTo(to: Byte): LongProgression {`  
`return LongProgression.fromClosedRange(this, to.toLong(), -1L)`  
`}`  
`n/n/**`  
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`public infix fun Byte.downTo(to: Byte): IntProgression {`  
`return IntProgression.fromClosedRange(this.toInt(), to.toInt(), -1)`  
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`n * If the [to] value is greater than `this` value the returned progression is empty.`  
`n */`  
`public infix fun Short.downTo(to: Byte): IntProgression {`  
`return IntProgression.fromClosedRange(this.toInt(), to.toInt(), -1)`  
`}`  
`n/n/**`  
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`n * n * The [to] value should be less than or equal to `this` value.`  
`n * If the [to] value is greater than `this` value the returned progression is empty.`  
`n */`  
`public infix fun Char.downTo(to: Char): CharProgression {`  
`return CharProgression.fromClosedRange(this, to, -1)`  
`}`  
`n/n/**`  
`n * Returns a progression from this value down to the specified [to] value with the step -1.`  
`n * n * The [to] value should be less than or equal to `this` value.`  
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`n */`  
`public infix fun Int.downTo(to: Int): IntProgression {`  
`return IntProgression.fromClosedRange(this, to, -1)`  
`}`  
`n/n/**`  
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`n * If the [to] value is greater than `this` value the returned progression is empty.`  
`n */`  
`public infix fun Long.downTo(to: Int): LongProgression {`  
`return LongProgression.fromClosedRange(this, to.toLong(), -1L)`  
`}`  
`n/n/**`  
`n * Returns a progression from this value down to the specified [to] value with the step -1.`  
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`return IntProgression.fromClosedRange(this.toInt(), to, -1)`  
`}`  
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`n * n * The [to] value should be less than or equal to `this` value.`  
`n * If the [to] value is greater than `this` value the returned progression is empty.`  
`n */`  
`public infix fun Int.downTo(to: Long): LongProgression {`  
`return LongProgression.fromClosedRange(this.toLong(), to, -1L)`  
`}`  
`n/n/**`  
`n * Returns a progression from this value down to the specified [to] value with the step -1.`  
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`public infix fun Long.downTo(to: Long): LongProgression {`  
`return LongProgression.fromClosedRange(this, to, -1L)`  
`}`  
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```

* If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun
Short.downTo(to:
Long): LongProgression {\n    return LongProgression.fromClosedRange(this.toLong(), to, -1L)\n}\n\n/**\n *
Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should
be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is
empty.\n */\npublic infix fun Int.downTo(to: Short): IntProgression {\n    return
IntProgression.fromClosedRange(this, to.toInt(), -1)\n}\n\n/**\n * Returns a progression from this value down to the
specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to]
value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Long.downTo(to: Short):
LongProgression {\n    return LongProgression.fromClosedRange(this, to.toLong(), -1L)\n}\n\n/**\n * Returns a
progression from this value down to the specified [to] value with the step -1.\n * \n * The [to]
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progression is empty.\n */\npublic infix fun Byte.downTo(to: Short): IntProgression {\n    return
IntProgression.fromClosedRange(this.toInt(), to.toInt(), -1)\n}\n\n/**\n * Returns a progression from this value
down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n
* If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun
Short.downTo(to: Short): IntProgression {\n    return IntProgression.fromClosedRange(this.toInt(), to.toInt(), -
1)\n}\n\n/**\n * Returns a progression that goes over the same range in the opposite direction with the same step.\n
*/\npublic fun IntProgression.reversed(): IntProgression {\n    return IntProgression.fromClosedRange(last, first, -
step)\n}\n\n/**\n * Returns a progression that goes over the same range in the opposite direction
with the same step.\n */\npublic fun LongProgression.reversed(): LongProgression {\n    return
LongProgression.fromClosedRange(last, first, -step)\n}\n\n/**\n * Returns a progression that goes over the same
range in the opposite direction with the same step.\n */\npublic fun CharProgression.reversed(): CharProgression {\n
return CharProgression.fromClosedRange(last, first, -step)\n}\n\n/**\n * Returns a progression that goes over the
same range with the given step.\n */\npublic infix fun IntProgression.step(step: Int): IntProgression {\n
checkStepIsPositive(step > 0, step)\n    return IntProgression.fromClosedRange(first, last, if (this.step > 0) step else -
step)\n}\n\n/**\n * Returns a progression that goes over the same range with the given step.\n */\npublic infix fun
LongProgression.step(step: Long): LongProgression {\n    checkStepIsPositive(step > 0, step)\n    return
LongProgression.fromClosedRange(first, last, if (this.step > 0) step else -step)\n}\n\n/**\n * Returns a
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Int): CharProgression {\n    checkStepIsPositive(step > 0, step)\n    return CharProgression.fromClosedRange(first,
last, if (this.step > 0) step else -step)\n}\n\ninternal fun Int.toByteExactOrNull(): Byte? {\n    return if (this in
Byte.MIN_VALUE.toInt()..Byte.MAX_VALUE.toInt()) this.toByte() else null\n}\n\ninternal fun
Long.toByteExactOrNull(): Byte? {\n    return if (this in
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Short.toByteExactOrNull(): Byte? {\n    return if (this in
Byte.MIN_VALUE.toShort()..Byte.MAX_VALUE.toShort()) this.toByte() else null\n}\n\ninternal fun
Double.toByteExactOrNull(): Byte? {\n    return if (this in
Byte.MIN_VALUE.toDouble()..Byte.MAX_VALUE.toDouble()) this.toInt().toByte() else null\n}\n\ninternal fun
Float.toByteExactOrNull(): Byte? {\n    return if (this in
Byte.MIN_VALUE.toFloat()..Byte.MAX_VALUE.toFloat())
this.toInt().toByte() else null\n}\n\ninternal fun Long.toIntExactOrNull(): Int? {\n    return if (this in
Int.MIN_VALUE.toLong()..Int.MAX_VALUE.toLong()) this.toInt() else null\n}\n\ninternal fun
Double.toIntExactOrNull(): Int? {\n    return if (this in
Int.MIN_VALUE.toDouble()..Int.MAX_VALUE.toDouble()) this.toInt() else null\n}\n\ninternal fun
Float.toIntExactOrNull(): Int? {\n    return if (this in Int.MIN_VALUE.toFloat()..Int.MAX_VALUE.toFloat())
this.toInt() else null\n}\n\ninternal fun Double.toLongExactOrNull(): Long? {\n    return if (this in
Long.MIN_VALUE.toDouble()..Long.MAX_VALUE.toDouble()) this.toLong() else null\n}\n\ninternal fun

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Float.toLongExactOrNull(): Long? {\n return if (this in Long.MIN\_VALUE.toFloat()..Long.MAX\_VALUE.toFloat()) this.toLong() else null\n}\n\ninternal fun

Int.toShortExactOrNull(): Short? {\n return if (this in Short.MIN\_VALUE.toInt()..Short.MAX\_VALUE.toInt()) this.toShort() else null\n}\n\ninternal fun Long.toShortExactOrNull(): Short? {\n return if (this in Short.MIN\_VALUE.toLong()..Short.MAX\_VALUE.toLong()) this.toShort() else null\n}\n\ninternal fun Double.toShortExactOrNull(): Short? {\n return if (this in Short.MIN\_VALUE.toDouble()..Short.MAX\_VALUE.toDouble()) this.toInt().toShort() else null\n}\n\ninternal fun Float.toShortExactOrNull(): Short? {\n return if (this in Short.MIN\_VALUE.toFloat()..Short.MAX\_VALUE.toFloat()) this.toInt().toShort() else null\n}\n\n\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Int.until(to: Byte): IntRange {\n return this .. (to.toInt() - 1).toInt()\n}\n\n\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Long.until(to: Byte): LongRange {\n return this .. (to.toLong() - 1).toLong()\n}\n\n\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Byte.until(to: Byte): IntRange {\n return this.toInt() .. (to.toInt() - 1).toInt()\n}\n\n\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Short.until(to: Byte): IntRange {\n return this.toInt() .. (to.toInt() - 1).toInt()\n}\n\n\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Char.until(to: Char): CharRange {\n if (to <= '\u0000') return CharRange.EMPTY\n return this .. (to - 1).toChar()\n}\n\n\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Int.until(to: Int): IntRange {\n if (to <= Int.MIN\_VALUE) return IntRange.EMPTY\n return this .. (to - 1).toInt()\n}\n\n\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Long.until(to: Int): LongRange {\n return this .. (to.toLong() - 1).toLong()\n}\n\n\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Byte.until(to: Int): IntRange {\n if (to <= Int.MIN\_VALUE) return IntRange.EMPTY\n return this.toInt() .. (to - 1).toInt()\n}\n\n\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Short.until(to: Int): IntRange {\n if (to <= Int.MIN\_VALUE) return IntRange.EMPTY\n return this.toInt() .. (to - 1).toInt()\n}\n\n\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Int.until(to: Long): LongRange {\n if (to <= Long.MIN\_VALUE) return LongRange.EMPTY\n return this.toLong() .. (to - 1).toLong()\n}\n\n\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Long.until(to: Long): LongRange {\n if (to <= Long.MIN\_VALUE) return LongRange.EMPTY\n return this .. (to - 1).toLong()\n}\n\n\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Byte.until(to: Long): LongRange {\n if (to <= Long.MIN\_VALUE) return LongRange.EMPTY\n return this.toLong() .. (to - 1).toLong()\n}\n\n\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Short.until(to: Long): LongRange {\n if (to <= Long.MIN\_VALUE) return LongRange.EMPTY\n return this.toLong() .. (to - 1).toLong()\n}\n\n\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or

equal to `this` value, then the returned range is empty.

```

public infix fun Int.until(to: Short): IntRange {
    return this .. (to.toInt() - 1).toInt()
}

```

\* Returns a range from this value up to but excluding the specified [to] value. \* If the [to] value is less than or equal to `this` value, then the returned range is empty.

```

public infix fun Long.until(to: Short): LongRange {
    return this .. (to.toLong() - 1).toLong()
}

```

\* Returns a range from this value up to but excluding the specified [to] value. \* If the [to] value is less than or equal to `this` value, then the returned range is empty.

```

public infix fun Byte.until(to: Short): IntRange {
    return this.toInt() .. (to.toInt() - 1).toInt()
}

```

\* Returns a range from this value up to but excluding the specified [to] value. \* If the [to] value is less than or equal to `this` value, then the returned range is empty.

```

public infix fun Short.until(to: Short): IntRange {
    return this.toInt() .. (to.toInt() - 1).toInt()
}

```

\* Ensures that this value is not less than the specified [minimumValue]. \* @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.

```

@sample
samples.comparisons.ComparableOps.coerceAtLeast

```

```

public fun <T : Comparable<T>>
T.coerceAtLeast(minimumValue: T): T {
    return if (this < minimumValue) minimumValue else this
}

```

\* Ensures that this value is not less than the specified [minimumValue]. \* @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.

```

@sample
samples.comparisons.ComparableOps.coerceAtLeast

```

```

public fun Byte.coerceAtLeast(minimumValue: Byte):
Byte {
    return if (this < minimumValue) minimumValue else this
}

```

\* Ensures that this value is not less than the specified [minimumValue]. \* @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.

```

@sample
samples.comparisons.ComparableOps.coerceAtLeast

```

```

public fun Short.coerceAtLeast(minimumValue: Short):
Short {
    return if (this < minimumValue) minimumValue else this
}

```

\* Ensures that this value is not less than the specified [minimumValue]. \* @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.

```

@sample
samples.comparisons.ComparableOps.coerceAtLeast

```

```

public fun Int.coerceAtLeast(minimumValue: Int): Int
{
    return if (this < minimumValue) minimumValue else this
}

```

\* Ensures that this value is not less than the specified [minimumValue]. \* @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.

```

@sample
samples.comparisons.ComparableOps.coerceAtLeast

```

```

public fun Long.coerceAtLeast(minimumValue: Long): Long {
    return if (this < minimumValue) minimumValue else this
}

```

\* Ensures that this value is not less than the specified [minimumValue]. \* @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.

```

@sample
samples.comparisons.ComparableOps.coerceAtLeast

```

```

public fun Float.coerceAtLeast(minimumValue: Float): Float {
    return if (this < minimumValue)
        minimumValue else this
}

```

\* Ensures that this value is not less than the specified [minimumValue]. \* @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.

```

@sample
samples.comparisons.ComparableOps.coerceAtLeast

```

```

public fun Double.coerceAtLeast(minimumValue: Double): Double {
    return if (this < minimumValue) minimumValue else this
}

```

\* Ensures that this value is not greater than the specified [maximumValue]. \* @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.

```

@sample
samples.comparisons.ComparableOps.coerceAtMostComparable

```

```

public fun <T : Comparable<T>>
T.coerceAtMost(maximumValue: T): T {
    return if (this > maximumValue)
        maximumValue else this
}

```

\* Ensures that this value is not greater than the specified [maximumValue]. \* @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.

```

@sample
samples.comparisons.ComparableOps.coerceAtMost

```

```

public fun Byte.coerceAtMost(maximumValue: Byte): Byte {
    return if (this > maximumValue) maximumValue else this
}

```

\* Ensures that this value is not greater than the specified [maximumValue]. \* @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.

```

@sample
samples.comparisons.ComparableOps.coerceAtMost

```

```

public fun Short.coerceAtMost(maximumValue: Short):
Short {
    return if (this > maximumValue) maximumValue else this
}

```

```

Short {
    return if (this > maximumValue) maximumValue else this
}
Ensures that this value is not greater than the specified [maximumValue].
@return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.
@sample samples.comparisons.ComparableOps.coerceAtMost
public fun Int.coerceAtMost(maximumValue: Int): Int {
    return if (this > maximumValue) maximumValue else this
}
Ensures that this value is not greater than the specified [maximumValue].
@return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.
@sample samples.comparisons.ComparableOps.coerceAtMost
public fun Long.coerceAtMost(maximumValue: Long): Long {
    return if (this > maximumValue) maximumValue else this
}
Ensures that this value is not greater than the specified [maximumValue].
@return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.
@sample samples.comparisons.ComparableOps.coerceAtMost
public fun Float.coerceAtMost(maximumValue: Float): Float {
    return if (this > maximumValue) maximumValue else this
}
Ensures that this value is not greater than the specified [maximumValue].
@return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.
@sample samples.comparisons.ComparableOps.coerceAtMost
public fun Double.coerceAtMost(maximumValue: Double): Double {
    return if (this > maximumValue) maximumValue else this
}
Ensures that this value lies in the specified range [minimumValue]..[maximumValue].
@return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].
@sample samples.comparisons.ComparableOps.coerceInComparable
public fun <T> Comparable<T>.coerceIn(minimumValue: T?, maximumValue: T?): T {
    if (minimumValue != null && maximumValue != null) {
        if (minimumValue > maximumValue) throw
IllegalArgumentOutOfRangeException("Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.")
        if (this < minimumValue) return minimumValue
        if (this > maximumValue) return maximumValue
    }
    else {
        if (minimumValue != null && this < minimumValue) return minimumValue
        if (maximumValue != null && this > maximumValue) return maximumValue
    }
    return this
}
Ensures that this value lies in the specified range [minimumValue]..[maximumValue].
@return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].
@sample samples.comparisons.ComparableOps.coerceIn
public fun Byte.coerceIn(minimumValue: Byte, maximumValue: Byte): Byte {
    if (minimumValue > maximumValue) throw
IllegalArgumentOutOfRangeException("Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.")
    if (this < minimumValue) return minimumValue
    if (this > maximumValue) return maximumValue
}
return this
}
Ensures that this value lies in the specified range [minimumValue]..[maximumValue].
@return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].
@sample samples.comparisons.ComparableOps.coerceIn
public fun Short.coerceIn(minimumValue: Short, maximumValue: Short): Short {
    if (minimumValue > maximumValue) throw
IllegalArgumentOutOfRangeException("Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.")
    if (this < minimumValue) return minimumValue
    if (this > maximumValue) return maximumValue
}
return this
}
Ensures that this value lies in the specified range [minimumValue]..[maximumValue].
@return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].
@sample samples.comparisons.ComparableOps.coerceIn
public fun Int.coerceIn(minimumValue: Int, maximumValue: Int): Int {
    if (minimumValue > maximumValue) throw
IllegalArgumentOutOfRangeException("Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.")
    if (this < minimumValue) return minimumValue
    if (this > maximumValue) return maximumValue
}
return

```

```

this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n *
@return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or
[maximumValue] if this value is greater than [maximumValue].\n * \n * @sample
samples.comparisons.ComparableOps.coerceIn\n *\npublic fun Long.coerceIn(minimumValue: Long,
maximumValue: Long): Long {\n    if (minimumValue > maximumValue) throw
IllegalArgumentException("Cannot coerce value to an empty range: maximum $maximumValue is less than
minimum $minimumValue.")\n
    if (this < minimumValue) return minimumValue\n    if (this > maximumValue) return maximumValue\n    return
this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n *
@return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or
[maximumValue] if this value is greater than [maximumValue].\n * \n * @sample
samples.comparisons.ComparableOps.coerceIn\n *\npublic fun Float.coerceIn(minimumValue: Float,
maximumValue: Float): Float {\n    if (minimumValue > maximumValue) throw
IllegalArgumentException("Cannot coerce value to an empty range: maximum $maximumValue is less than
minimum $minimumValue.")\n    if (this < minimumValue) return minimumValue\n    if (this > maximumValue)
return maximumValue\n    return this\n}\n\n/**\n * Ensures that this value lies in the specified range
[minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this
value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n *
@sample samples.comparisons.ComparableOps.coerceIn\n *\npublic fun Double.coerceIn(minimumValue:
Double, maximumValue: Double): Double {\n    if (minimumValue > maximumValue) throw
IllegalArgumentException("Cannot coerce value to an empty range: maximum $maximumValue is less than
minimum $minimumValue.")\n    if (this < minimumValue) return minimumValue\n    if (this > maximumValue)
return maximumValue\n    return this\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n *
@return this value if it's in the [range], or `range.start` if this value is less than `range.start`, or `range.endInclusive`
if this value is greater than `range.endInclusive`.\n * \n * @sample
samples.comparisons.ComparableOps.coerceInFloatingPointRange\n *\n@SinceKotlin("1.1")\npublic fun <T :
Comparable<T>> T.coerceIn(range: ClosedFloatingPointRange<T>): T {\n    if (range.isEmpty())
throw IllegalArgumentException("Cannot coerce value to an empty range: $range.")\n    return when {\n        //
this < start equiv to this <= start && !(this >= start)\n        range.lessThanOrEquals(this, range.start) &&
!range.lessThanOrEquals(range.start, this) -> range.start\n        // this > end equiv to this >= end && !(this <= end)\n
range.lessThanOrEquals(range.endInclusive, this) && !range.lessThanOrEquals(this, range.endInclusive) ->
range.endInclusive\n        else -> this\n    }\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n *
@return this value if it's in the [range], or `range.start` if this value is less than `range.start`, or `range.endInclusive`
if this value is greater than `range.endInclusive`.\n * \n * @sample
samples.comparisons.ComparableOps.coerceInComparable\n *\npublic fun <T : Comparable<T>>
T.coerceIn(range: ClosedRange<T>): T {\n    if (range is ClosedFloatingPointRange) {\n        return
this.coerceIn<T>(range)\n
    }\n    if (range.isEmpty()) throw IllegalArgumentException("Cannot coerce value to an empty range: $range.")\n
return when {\n        this < range.start -> range.start\n        this > range.endInclusive -> range.endInclusive\n
else -> this\n    }\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n * @return this value if it's
in the [range], or `range.start` if this value is less than `range.start`, or `range.endInclusive` if this value is greater
than `range.endInclusive`.\n * \n * @sample samples.comparisons.ComparableOps.coerceIn\n *\npublic fun
Int.coerceIn(range: ClosedRange<Int>): Int {\n    if (range is ClosedFloatingPointRange) {\n        return
this.coerceIn<Int>(range)\n    }\n    if (range.isEmpty()) throw IllegalArgumentException("Cannot coerce value to
an empty range: $range.")\n    return when {\n        this < range.start -> range.start\n        this > range.endInclusive -
-> range.endInclusive\n        else -> this\n    }\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n *
@return this value if it's in the [range], or `range.start` if this value is less than `range.start`, or `range.endInclusive`
if this value is greater than `range.endInclusive`.\n * \n *

```

```

* @sample samples.comparisons.ComparableOps.coerceIn\n *\npublic fun Long.coerceIn(range:
ClosedRange<Long>): Long {\n    if (range is ClosedFloatingPointRange) {\n        return
this.coerceIn<Long>(range)\n    }\n    if (range.isEmpty()) throw IllegalArgumentException("Cannot coerce value
to an empty range: $range.")\n    return when {\n        this < range.start -> range.start\n        this >
range.endInclusive -> range.endInclusive\n        else -> this\n    }\n}\n\n"/*\n * Copyright 2010-2022 JetBrains
s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0
license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT
EDIT!\n\npackage
kotlin\n\nimport kotlin.experimental.*\nimport
kotlin.jvm.*\n\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@JvmInline\npu
blic value class UByte @PublishedApi internal constructor(@PublishedApi internal val data: Byte) :
Comparable<UByte> {\n\n    companion object {\n        /**\n         * A constant holding the minimum value an
instance of UByte can have.\n         */\n        public const val MIN_VALUE: UByte = UByte(0)\n\n        /**\n         *
A constant holding the maximum value an instance of UByte can have.\n         */\n        public const val
MAX_VALUE: UByte = UByte(-1)\n\n        /**\n         * The number of bytes used to represent an instance of
UByte in a binary form.\n         */\n        public const val SIZE_BYTES: Int = 1\n\n        /**\n         * The number of
bits used to represent an instance of UByte in a binary form.\n         */\n        public const val SIZE_BITS: Int = 8\n
    }\n\n    /**\n     * Compares this value with the
specified value for order.\n     * Returns zero if this value is equal to the specified other value, a negative number if
it's less than other,\n     * or a positive number if it's greater than other.\n     */\n    @kotlin.internal.InlineOnly\n
@Suppress("OVERRIDE_BY_INLINE")\n    public override inline operator fun compareTo(other: UByte): Int =
this.toInt().compareTo(other.toInt())\n\n    /**\n     * Compares this value with the specified value for order.\n     *
Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n     * or a
positive number if it's greater than other.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun
compareTo(other: UShort): Int = this.toInt().compareTo(other.toInt())\n\n    /**\n     * Compares this value with the
specified value for order.\n     * Returns zero if this value is equal to the specified other value, a negative number if
it's less than other,\n     * or a positive
number if it's greater than other.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun
compareTo(other: UInt): Int = this.toUInt().compareTo(other)\n\n    /**\n     * Compares this value with the
specified value for order.\n     * Returns zero if this value is equal to the specified other value, a negative number if
it's less than other,\n     * or a positive number if it's greater than other.\n     */\n    @kotlin.internal.InlineOnly\n
public inline operator fun compareTo(other: ULong): Int = this.toULong().compareTo(other)\n\n    /** Adds the
other value to this value. */\n    @kotlin.internal.InlineOnly\n    public inline operator fun plus(other: UByte): UInt =
this.toUInt().plus(other.toUInt())\n\n    /** Adds the other value to this value. */\n    @kotlin.internal.InlineOnly\n
public inline operator fun plus(other: UShort): UInt = this.toUInt().plus(other.toUInt())\n\n    /** Adds the other value
to this value. */\n    @kotlin.internal.InlineOnly\n    public
inline operator fun plus(other: UInt): UInt = this.toUInt().plus(other)\n\n    /** Adds the other value to this value. */\n
    @kotlin.internal.InlineOnly\n    public inline operator fun plus(other: ULong): ULong =
this.toULong().plus(other)\n\n    /** Subtracts the other value from this value. */\n    @kotlin.internal.InlineOnly\n
public inline operator fun minus(other: UByte): UInt = this.toUInt().minus(other.toUInt())\n\n    /** Subtracts the
other value from this value. */\n    @kotlin.internal.InlineOnly\n    public inline operator fun minus(other: UShort):
UInt = this.toUInt().minus(other.toUInt())\n\n    /** Subtracts the other value from this value. */\n    @kotlin.internal.InlineOnly\n
public inline operator fun minus(other: UInt): UInt = this.toUInt().minus(other)\n\n    /** Subtracts the other value from
this value. */\n    @kotlin.internal.InlineOnly\n    public inline operator fun
minus(other: ULong): ULong = this.toULong().minus(other)\n\n    /** Multiplies this value by
the other value. */\n    @kotlin.internal.InlineOnly\n    public inline operator fun times(other: UByte): UInt =
this.toUInt().times(other.toUInt())\n\n    /** Multiplies this value by the other value. */\n    @kotlin.internal.InlineOnly\n
public inline operator fun times(other: UShort): UInt =

```

```

this.toUInt().times(other.toUInt())\n  /** Multiplies this value by the other value. */\n
@kotlin.internal.InlineOnly\n  public inline operator fun times(other: UInt): UInt = this.toUInt().times(other)\n
/** Multiplies this value by the other value. */\n  @kotlin.internal.InlineOnly\n  public inline operator fun
times(other: ULong): ULong = this.toULong().times(other)\n\n  /** Divides this value by the other value,
truncating the result to an integer that is closer to zero. */\n  @kotlin.internal.InlineOnly\n  public inline operator
fun div(other: UByte): UInt = this.toUInt().div(other.toUInt())\n  /** Divides this value by the other value,
truncating the result to an integer
that is closer to zero. */\n  @kotlin.internal.InlineOnly\n  public inline operator fun div(other: UShort): UInt =
this.toUInt().div(other.toUInt())\n  /** Divides this value by the other value, truncating the result to an integer that
is closer to zero. */\n  @kotlin.internal.InlineOnly\n  public inline operator fun div(other: UInt): UInt =
this.toUInt().div(other)\n  /** Divides this value by the other value, truncating the result to an integer that is closer
to zero. */\n  @kotlin.internal.InlineOnly\n  public inline operator fun div(other: ULong): ULong =
this.toULong().div(other)\n\n  /**\n   * Calculates the remainder of truncating division of this value by the other
value.\n   * \n   * The result is always less than the divisor.\n   */\n  @kotlin.internal.InlineOnly\n  public
inline operator fun rem(other: UByte): UInt = this.toUInt().rem(other.toUInt())\n  /**\n   * Calculates the
remainder of truncating division of this value by the other
value.\n   * \n   * The result is always less than the divisor.\n   */\n  @kotlin.internal.InlineOnly\n  public
inline operator fun rem(other: UShort): UInt = this.toUInt().rem(other.toUInt())\n  /**\n   * Calculates the
remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the
divisor.\n   */\n  @kotlin.internal.InlineOnly\n  public inline operator fun rem(other: UInt): UInt =
this.toUInt().rem(other)\n  /**\n   * Calculates the remainder of truncating division of this value by the other
value.\n   * \n   * The result is always less than the divisor.\n   */\n  @kotlin.internal.InlineOnly\n  public
inline operator fun rem(other: ULong): ULong = this.toULong().rem(other)\n\n  /**\n   * Divides this value by
the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types,
the results of flooring division and truncating division are
the same.\n   */\n  @kotlin.internal.InlineOnly\n  public inline fun floorDiv(other: UByte): UInt =
this.toUInt().floorDiv(other.toUInt())\n  /**\n   * Divides this value by the other value, flooring the result to an
integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and
truncating division are the same.\n   */\n  @kotlin.internal.InlineOnly\n  public inline fun floorDiv(other:
UShort): UInt = this.toUInt().floorDiv(other.toUInt())\n  /**\n   * Divides this value by the other value, flooring
the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring
division and truncating division are the same.\n   */\n  @kotlin.internal.InlineOnly\n  public inline fun
floorDiv(other: UInt): UInt = this.toUInt().floorDiv(other)\n  /**\n   * Divides this value by the other value,
flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring
division and truncating division are the same.\n   */\n  @kotlin.internal.InlineOnly\n  public inline fun
floorDiv(other: ULong): ULong =
this.toULong().floorDiv(other)\n\n  /**\n   * Calculates the remainder of flooring division of this value by the
other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders
of flooring division and truncating division are the same.\n   */\n  @kotlin.internal.InlineOnly\n  public inline
fun mod(other: UByte): UByte = this.toUInt().mod(other.toUInt()).toUByte()\n  /**\n   * Calculates the remainder
of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n
   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n  @kotlin.internal.InlineOnly\n  public inline fun mod(other: UShort):
UShort = this.toUInt().mod(other.toUInt()).toUShort()\n  /**\n   * Calculates the remainder of flooring division
of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned
types, the remainders of flooring division and truncating division are the same.\n   */\n  @kotlin.internal.InlineOnly\n  public inline fun mod(other: UInt): UInt =
this.toUInt().mod(other)\n  /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less

```



than the divisor.\n \* \n \* For unsigned types, the remainders of flooring division and truncating division are the same.\n \* \n @kotlin.internal.InlineOnly\n public inline fun mod(other: ULong): ULong = this.toULong().mod(other)\n\n /\*\*\n \* Returns this value incremented by one.\n \* \n \* @sample samples.misc.Builtins.inc\n \* \n @kotlin.internal.InlineOnly\n public inline operator fun inc(): UByte = UByte(data.inc())\n\n /\*\*\n \* Returns this value decremented by one.\n \* \n \* @sample samples.misc.Builtins.dec\n \* \n @kotlin.internal.InlineOnly\n public inline operator fun dec(): UByte = UByte(data.dec())\n\n /\*\* Creates a range from this value to the specified [other] value. \* \n @kotlin.internal.InlineOnly\n public inline operator fun rangeTo(other: UByte): UIntRange = UIntRange(this.toUInt(), other.toUInt())\n\n /\*\* Performs a bitwise AND operation between the two values. \* \n @kotlin.internal.InlineOnly\n public inline infix fun and(other: UByte): UByte = UByte(this.data and other.data)\n\n /\*\* Performs a bitwise OR operation between the two values. \* \n @kotlin.internal.InlineOnly\n public inline infix fun or(other: UByte): UByte = UByte(this.data or other.data)\n\n /\*\* Performs a bitwise XOR operation between the two values. \* \n @kotlin.internal.InlineOnly\n public inline infix fun xor(other: UByte): UByte = UByte(this.data xor other.data)\n\n /\*\* Inverts the bits in this value. \* \n @kotlin.internal.InlineOnly\n public inline fun inv(): UByte = UByte(data.inv())\n\n /\*\*\n \* Converts this [UByte] value to [Byte].\n \* \n \* If this value is less than or equals to [Byte.MAX\_VALUE], the resulting `Byte` value represents\n \* the same numerical value as this `UByte`. Otherwise the result is negative.\n \* \n \* The resulting `Byte` value has the same binary representation as this `UByte` value.\n \* \n @kotlin.internal.InlineOnly\n public inline fun toByte(): Byte = data\n\n /\*\*\n \* Converts this [UByte] value to [Short].\n \* \n \* The resulting `Short` value represents the same numerical value as this `UByte`.\n \* \n \* The least significant 8 bits of the resulting `Short` value are the same as the bits of this `UByte` value,\n \* whereas the most significant 8 bits are filled with zeros.\n \* \n @kotlin.internal.InlineOnly\n public inline fun toShort(): Short = data.toShort() and 0xFF\n\n /\*\*\n \* Converts this [UByte] value to [Int].\n \* \n \* The resulting `Int` value represents the same numerical value as this `UByte`.\n \* \n \* The least significant 8 bits of the resulting `Int` value are the same as the bits of this `UByte` value,\n \* whereas the most significant 24 bits are filled with zeros.\n \* \n @kotlin.internal.InlineOnly\n public inline fun toInt(): Int = data.toInt() and 0xFF\n\n /\*\*\n \* Converts this [UByte] value to [Long].\n \* \n \* The resulting `Long` value represents the same numerical value as this `UByte`.\n \* \n \* The least significant 8 bits of the resulting `Long` value are the same as the bits of this `UByte` value,\n \* whereas the most significant 56 bits are filled with zeros.\n \* \n @kotlin.internal.InlineOnly\n public inline fun toLong(): Long = data.toLong() and 0xFF\n\n /\*\* Returns this value. \* \n @kotlin.internal.InlineOnly\n public inline fun toUByte(): UByte = this\n\n /\*\*\n \* Converts this [UByte] value to [UShort].\n \* \n \* The resulting `UShort` value represents the same numerical value as this `UByte`.\n \* \n \* The least significant 8 bits of the resulting `UShort` value are the same as the bits of this `UByte` value,\n \* whereas the most significant 8 bits are filled with zeros.\n \* \n @kotlin.internal.InlineOnly\n public inline fun toUShort(): UShort = UShort(data.toShort() and 0xFF)\n\n /\*\*\n \* Converts this [UByte] value to [UInt].\n \* \n \* The resulting `UInt` value represents the same numerical value as this `UByte`.\n \* \n \* The least significant 8 bits of the resulting `UInt` value are the same as the bits of this `UByte` value,\n \* whereas the most significant 24 bits are filled with zeros.\n \* \n @kotlin.internal.InlineOnly\n public inline fun toUInt(): UInt = UInt(data.toInt() and 0xFF)\n\n /\*\*\n \* Converts this [UByte] value to [ULong].\n \* \n \* The resulting `ULong` value represents the same numerical value as this `UByte`.\n \* \n \* The least significant 8 bits of the resulting `ULong` value are the same as the bits of this `UByte` value,\n \* whereas the most significant 56 bits are filled with zeros.\n \* \n @kotlin.internal.InlineOnly\n public inline fun toULong(): ULong = ULong(data.toLong() and 0xFF)\n\n /\*\*\n \* Converts this [UByte] value to [Float].\n \* \n \* The resulting `Float` value represents the same numerical value as this `UByte`.\n \* \n @kotlin.internal.InlineOnly\n public inline fun toFloat(): Float = this.toInt().toFloat()\n\n /\*\*\n \* Converts this [UByte] value to [Double].\n \* \n \* The resulting `Double` value represents the same numerical value as this `UByte`.\n \* \n @kotlin.internal.InlineOnly\n public inline

```

fun toDouble(): Double = this.toInt().toDouble()\n\n public
override fun toString(): String = toInt().toString()\n\n}\n\n/**\n * Converts this [Byte] value to [UByte].\n *\n * If
this value is positive, the resulting `UByte` value represents the same numerical value as this `Byte`.\n *\n * The
resulting `UByte` value has the same binary representation as this `Byte` value.\n
*\n @SinceKotlin("1.5")\n @WasExperimental(ExperimentalUnsignedTypes::class)\n @kotlin.internal.InlineOnly\n
npublic inline fun Byte.toUByte(): UByte = UByte(this)\n\n/**\n * Converts this [Short] value to [UByte].\n *\n * If
this value is positive and less than or equals to [UByte.MAX_VALUE], the resulting `UByte` value represents\n *
the same numerical value as this `Short`.\n *\n * The resulting `UByte` value is represented by the least significant 8
bits of this `Short` value.\n
*\n @SinceKotlin("1.5")\n @WasExperimental(ExperimentalUnsignedTypes::class)\n @kotlin.internal.InlineOnly\n
npublic inline fun Short.toUByte(): UByte = UByte(this.toByte())\n\n/**\n * Converts this [Int]
value to [UByte].\n *\n * If this value is positive and less than or equals to [UByte.MAX_VALUE], the resulting
`UByte` value represents\n * the same numerical value as this `Int`.\n *\n * The resulting `UByte` value is
represented by the least significant 8 bits of this `Int` value.\n
*\n @SinceKotlin("1.5")\n @WasExperimental(ExperimentalUnsignedTypes::class)\n @kotlin.internal.InlineOnly\n
npublic inline fun Int.toUByte(): UByte = UByte(this.toByte())\n\n/**\n * Converts this [Long] value to [UByte].\n
*\n * If this value is positive and less than or equals to [UByte.MAX_VALUE], the resulting `UByte` value
represents\n * the same numerical value as this `Long`.\n *\n * The resulting `UByte` value is represented by the
least significant 8 bits of this `Long` value.\n
*\n @SinceKotlin("1.5")\n @WasExperimental(ExperimentalUnsignedTypes::class)\n @kotlin.internal.InlineOnly\n
npublic inline fun Long.toUByte(): UByte = UByte(this.toByte())\n\n", /*\n * Copyright 2010-2022 JetBrains s.r.o.
and
Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage
kotlin\n\nimport kotlin.experimental.*\nimport
kotlin.jvm.*\n\n @SinceKotlin("1.5")\n @WasExperimental(ExperimentalUnsignedTypes::class)\n @JvmInline\n npublic
value class UInt @PublishedApi internal constructor(@PublishedApi internal val data: Int) :
Comparable<UInt> {\n\n companion object {\n\n /**\n * A constant holding the minimum value an
instance of UInt can have.\n * \n public const val MIN_VALUE: UInt = UInt(0)\n\n /**\n * A
constant holding the maximum value an instance of UInt can have.\n * \n public const val MAX_VALUE:
UInt = UInt(-1)\n\n /**\n * The number of bytes used to represent an instance of UInt in a binary form.\n
*\n public const val SIZE_BYTES: Int = 4\n\n
**\n * The number of bits used to represent an instance of UInt in a binary form.\n * \n public const
val SIZE_BITS: Int = 32\n } \n\n /**\n * Compares this value with the specified value for order.\n * Returns
zero if this value is equal to the specified other value, a negative number if it's less than other,\n * or a positive
number if it's greater than other.\n * \n @kotlin.internal.InlineOnly\n public inline operator fun
compareTo(other: UByte): Int = this.compareTo(other.toUInt())\n\n /**\n * Compares this value with the
specified value for order.\n * Returns zero if this value is equal to the specified other value, a negative number if
it's less than other,\n * or a positive number if it's greater than other.\n * \n @kotlin.internal.InlineOnly\n
public inline operator fun compareTo(other: UShort): Int = this.compareTo(other.toUInt())\n\n /**\n *
Compares this value with the specified value for order.\n
*\n * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n *
or a positive number if it's greater than other.\n * \n @kotlin.internal.InlineOnly\n
*\n @Suppress("OVERRIDE_BY_INLINE")\n public override inline operator fun compareTo(other: UInt): Int =
uintCompare(this.data, other.data)\n\n /**\n * Compares this value with the specified value for order.\n *
Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n *
or a positive number if it's greater than other.\n * \n @kotlin.internal.InlineOnly\n public inline operator fun
compareTo(other: ULong): Int = this.toULong().compareTo(other)\n\n /**\n * Adds the other value to this value. *\n

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@kotlin.internal.InlineOnly\n public inline operator fun plus(other: UByte): UInt = this.plus(other.toUInt())\n
/** Adds the other value to this value. */\n @kotlin.internal.InlineOnly\n
public inline operator fun plus(other: UShort): UInt = this.plus(other.toUInt())\n /** Adds the other value to this
value. */\n @kotlin.internal.InlineOnly\n public inline operator fun plus(other: UInt): UInt =
UInt(this.data.plus(other.data))\n /** Adds the other value to this value. */\n @kotlin.internal.InlineOnly\n
public inline operator fun plus(other: ULong): ULong = this.toULong().plus(other)\n\n /** Subtracts the other
value from this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun minus(other: UByte): UInt =
this.minus(other.toUInt())\n /** Subtracts the other value from this value. */\n @kotlin.internal.InlineOnly\n
public inline operator fun minus(other: UShort): UInt = this.minus(other.toUInt())\n /** Subtracts the other value
from this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun minus(other: UInt): UInt =
UInt(this.data.minus(other.data))\n /** Subtracts the other value from
this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun minus(other: ULong): ULong =
this.toULong().minus(other)\n\n /** Multiplies this value by the other value. */\n @kotlin.internal.InlineOnly\n
public inline operator fun times(other: UByte): UInt = this.times(other.toUInt())\n /** Multiplies this value by the
other value. */\n @kotlin.internal.InlineOnly\n public inline operator fun times(other: UShort): UInt =
this.times(other.toUInt())\n /** Multiplies this value by the other value. */\n @kotlin.internal.InlineOnly\n
public inline operator fun times(other: UInt): UInt = UInt(this.data.times(other.data))\n /** Multiplies this value
by the other value. */\n @kotlin.internal.InlineOnly\n public inline operator fun times(other: ULong): ULong =
this.toULong().times(other)\n\n /** Divides this value by the other value, truncating the result to an integer that is
closer to zero. */\n @kotlin.internal.InlineOnly\n public
inline operator fun div(other: UByte): UInt = this.div(other.toUInt())\n /** Divides this value by the other value,
truncating the result to an integer that is closer to zero. */\n @kotlin.internal.InlineOnly\n public inline operator
fun div(other: UShort): UInt = this.div(other.toUInt())\n /** Divides this value by the other value, truncating the
result to an integer that is closer to zero. */\n @kotlin.internal.InlineOnly\n public inline operator fun div(other:
UInt): UInt = uintDivide(this, other)\n /** Divides this value by the other value, truncating the result to an integer
that is closer to zero. */\n @kotlin.internal.InlineOnly\n public inline operator fun div(other: ULong): ULong =
this.toULong().div(other)\n\n /**\n * Calculates the remainder of truncating division of this value by the other
value.\n * \n * The result is always less than the divisor.\n */\n @kotlin.internal.InlineOnly\n public
inline operator fun rem(other:
UByte): UInt = this.rem(other.toUInt())\n /**\n * Calculates the remainder of truncating division of this value
by the other value.\n * \n * The result is always less than the divisor.\n */\n @kotlin.internal.InlineOnly\n
public inline operator fun rem(other: UShort): UInt = this.rem(other.toUInt())\n /**\n * Calculates the
remainder of truncating division of this value by the other value.\n * \n * The result is always less than the
divisor.\n */\n @kotlin.internal.InlineOnly\n public inline operator fun rem(other: UInt): UInt =
uintRemainder(this, other)\n /**\n * Calculates the remainder of truncating division of this value by the other
value.\n * \n * The result is always less than the divisor.\n */\n @kotlin.internal.InlineOnly\n public
inline operator fun rem(other: ULong): ULong = this.toULong().rem(other)\n\n /**\n * Divides this value by
the other value, flooring the result to an integer that is
closer to negative infinity.\n * \n * For unsigned types, the results of flooring division and truncating division
are the same.\n */\n @kotlin.internal.InlineOnly\n public inline fun floorDiv(other: UByte): UInt =
this.floorDiv(other.toUInt())\n /**\n * Divides this value by the other value, flooring the result to an integer that
is closer to negative infinity.\n * \n * For unsigned types, the results of flooring division and truncating division
are the same.\n */\n @kotlin.internal.InlineOnly\n public inline fun floorDiv(other: UShort): UInt =
this.floorDiv(other.toUInt())\n /**\n * Divides this value by the other value, flooring the result to an integer that
is closer to negative infinity.\n * \n * For unsigned types, the results of flooring division and truncating division
are the same.\n */\n @kotlin.internal.InlineOnly\n public inline fun floorDiv(other: UInt): UInt = div(other)\n
/**\n * Divides this value

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by the other value, flooring the result to an integer that is closer to negative infinity.\n * \n * For unsigned
types, the results of flooring division and truncating division are the same.\n * \n @kotlin.internal.InlineOnly\n
public inline fun floorDiv(other: ULong): ULong = this.toULong().floorDiv(other)\n\n /**\n * Calculates the
remainder of flooring division of this value by the other value.\n * \n * The result is always less than the
divisor.\n * \n * For unsigned types, the remainders of flooring division and truncating division are the same.\n
*\n @kotlin.internal.InlineOnly\n public inline fun mod(other: UByte): UByte =
this.mod(other.toUInt()).toUByte()\n\n /**\n * Calculates the remainder of flooring division of this value by the
other value.\n * \n * The result is always less than the divisor.\n * \n * For unsigned types, the remainders
of flooring division and truncating division are the same.\n
*\n @kotlin.internal.InlineOnly\n public inline fun mod(other: UShort): UShort =
this.mod(other.toUInt()).toUShort()\n\n /**\n * Calculates the remainder of flooring division of this value by the
other value.\n * \n * The result is always less than the divisor.\n * \n * For unsigned types, the remainders
of flooring division and truncating division are the same.\n
*\n @kotlin.internal.InlineOnly\n public inline fun mod(other: UInt): UInt = rem(other)\n\n /**\n * Calculates the remainder of flooring division of this value by
the other value.\n * \n * The result is always less than the divisor.\n * \n * For unsigned types, the
remainders of flooring division and truncating division are the same.\n
*\n @kotlin.internal.InlineOnly\n public inline fun mod(other: ULong): ULong = this.toULong().mod(other)\n\n /**\n * Returns this value
incremented by one.\n * \n * @sample samples.misc.Builtins.inc\n * \n
*\n @kotlin.internal.InlineOnly\n public inline operator fun inc(): UInt = UInt(data.inc())\n\n /**\n * Returns
this value decremented by one.\n * \n * @sample samples.misc.Builtins.dec\n * \n
*\n @kotlin.internal.InlineOnly\n public inline operator fun dec(): UInt = UInt(data.dec())\n\n /** Creates a range
from this value to the specified [other] value. *\n @kotlin.internal.InlineOnly\n public inline operator fun
rangeTo(other: UInt): UIntRange = UIntRange(this, other)\n\n /**\n * Shifts this value left by the [bitCount]
number of bits.\n * \n * Note that only the five lowest-order bits of the [bitCount] are used as the shift
distance.\n * \n * The shift distance actually used is therefore always in the range `0..31`.\n * \n
*\n @kotlin.internal.InlineOnly\n public inline infix fun shl(bitCount: Int): UInt = UInt(data shl bitCount)\n\n /**\n
* Shifts this value right by the [bitCount] number of bits, filling the leftmost bits
with zeros.\n * \n * Note that only the five lowest-order bits of the [bitCount] are used as the shift distance.\n
*\n * The shift distance actually used is therefore always in the range `0..31`.\n * \n
*\n @kotlin.internal.InlineOnly\n public inline infix fun shr(bitCount: Int): UInt = UInt(data ushr bitCount)\n\n /** Performs a bitwise AND
operation between the two values. *\n @kotlin.internal.InlineOnly\n public inline infix fun and(other: UInt):
UInt = UInt(this.data and other.data)\n\n /** Performs a bitwise OR operation between the two values. *\n
*\n @kotlin.internal.InlineOnly\n public inline infix fun or(other: UInt): UInt = UInt(this.data or other.data)\n\n /**
Performs a bitwise XOR operation between the two values. *\n @kotlin.internal.InlineOnly\n public inline infix
fun xor(other: UInt): UInt = UInt(this.data xor other.data)\n\n /** Inverts the bits in this value. *\n
*\n @kotlin.internal.InlineOnly\n public inline fun inv(): UInt
= UInt(data.inv())\n\n /**\n * Converts this [UInt] value to [Byte].\n * \n * If this value is less than or
equals to [Byte.MAX_VALUE], the resulting `Byte` value represents\n * the same numerical value as this
`UInt`.\n * \n * The resulting `Byte` value is represented by the least significant 8 bits of this `UInt` value.\n *
*\n Note that the resulting `Byte` value may be negative.\n * \n
*\n @kotlin.internal.InlineOnly\n public inline fun
toByte(): Byte = data.toByte()\n\n /**\n * Converts this [UInt] value to [Short].\n * \n * If this value is less
than or equals to [Short.MAX_VALUE], the resulting `Short` value represents\n * the same numerical value as
this `UInt`.\n * \n * The resulting `Short` value is represented by the least significant 16 bits of this `UInt`
value.\n * \n * Note that the resulting `Short` value may be negative.\n * \n
*\n @kotlin.internal.InlineOnly\n public inline fun
toShort(): Short = data.toShort()\n\n /**\n * Converts this [UInt] value to [Int].\n * \n * If this value is less than or equals to
[Int.MAX_VALUE], the resulting `Int` value represents\n * the same numerical value as this `UInt`. Otherwise
the result is negative.\n * \n * The resulting `Int` value has the same binary representation as this `UInt` value.\n

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    @kotlin.internal.InlineOnly public inline fun toInt(): Int = data.toInt() /** Converts this [UInt] value
to [Long]. The resulting `Long` value represents the same numerical value as this `UInt`. The least significant
32 bits of the resulting `Long` value are the same as the bits of this `UInt` value, whereas the most significant
32 bits are filled with zeros. */
    @kotlin.internal.InlineOnly public inline fun
toLong(): Long = data.toLong() and 0xFFFF_FFFF /** Converts this [UInt] value to [UByte]. If this value is less
than or equals to [UByte.MAX_VALUE], the resulting `UByte` value represents the same numerical value as this
`UInt`. The resulting `UByte` value is represented by the least significant 8 bits of this `UInt` value. */
    @kotlin.internal.InlineOnly public inline fun toUByte(): UByte = data.toUByte() /** Converts this
[UInt] value to [UShort]. If this value is less than or equals to [UShort.MAX_VALUE], the resulting
`UShort` value represents the same numerical value as this `UInt`. The resulting `UShort` value is
represented by the least significant 16 bits of this `UInt` value. */
    @kotlin.internal.InlineOnly public inline fun
toUShort(): UShort = data.toUShort() /** Returns this value. */
    @kotlin.internal.InlineOnly public inline fun
toUInt(): UInt = this.toInt() /** Converts this [UInt] value to [ULong]. The resulting `ULong` value
represents the same numerical value as this `UInt`. The least significant 32 bits of the resulting `ULong`
value are the same as the bits of this `UInt` value, whereas the most significant 32 bits are filled with
zeros. */
    @kotlin.internal.InlineOnly public inline fun toULong(): ULong = ULong(data.toLong() and
0xFFFF_FFFF) /** Converts this [UInt] value to [Float]. The resulting value is the closest `Float` to
this `UInt` value. In case when this `UInt` value is exactly between two `Float`s, the one with zero at
least significant bit of mantissa is selected. */
    @kotlin.internal.InlineOnly public inline fun
toFloat(): Float = this.toDouble().toFloat() /** Converts this [UInt] value to [Double]. The resulting
`Double` value represents the same numerical value as this `UInt`. */
    @kotlin.internal.InlineOnly public inline fun toDouble(): Double = UInt.toDouble(data) public
override fun toString(): String = toLong().toString() /** Converts this [Byte] value to [UInt]. If
this value is positive, the resulting `UInt` value represents the same numerical value as this `Byte`. The
least significant 8 bits of the resulting `UInt` value are the same as the bits of this `Byte` value,
whereas the most significant 24 bits are filled with the sign bit of this value. */
    @SinceKotlin("1.5") @WasExperimental(ExperimentalUnsignedTypes::class) @kotlin.internal.InlineOnly
public inline fun Byte.toUInt(): UInt = UInt(this.toInt()) /** Converts this [Short] value to [UInt]. If
this value is positive, the resulting `UInt` value represents the same numerical value as this `Short`. The
least significant 16 bits of the resulting `UInt` value are the same as the bits of this `Short` value,
whereas the most significant 16 bits are filled with the sign bit of this value. */
    @SinceKotlin("1.5") @WasExperimental(ExperimentalUnsignedTypes::class) @kotlin.internal.InlineOnly
public inline fun Short.toUInt(): UInt = UInt(this.toInt()) /** Converts this [Int] value to [UInt]. If
this value is positive, the resulting `UInt` value represents the same numerical value as this `Int`. The
resulting `UInt` value has the same binary representation as this `Int` value. */
    @SinceKotlin("1.5") @WasExperimental(ExperimentalUnsignedTypes::class) @kotlin.internal.InlineOnly
public inline fun Int.toUInt(): UInt = UInt(this) /** Converts this [Long] value to [UInt]. If this value
is positive and less than or equals to [UInt.MAX_VALUE], the resulting `UInt` value represents the same
numerical value as this `Long`. The resulting `UInt` value is represented by the least significant 32 bits
of this `Long` value. */
    @SinceKotlin("1.5") @WasExperimental(ExperimentalUnsignedTypes::class) @kotlin.internal.InlineOnly
public inline fun Long.toUInt(): UInt =
    UInt(this.toInt()) /** Converts this [Float] value to [UInt]. The fractional part, if any, is rounded
down towards zero. Returns zero if this `Float` value is negative or `NaN`, [UInt.MAX_VALUE] if it's bigger
than `UInt.MAX_VALUE`. */

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*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Float.toUInt(): UInt = doubleToUInt(this.toDouble())\n/**\n * Converts this [Double] value to [UInt].\n *\n * The fractional part, if any, is rounded down towards zero.\n * Returns zero if this `Double` value is negative or `NaN`, [UInt.MAX_VALUE] if it's bigger than `UInt.MAX_VALUE`.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Double.toUInt(): UInt = doubleToUInt(this)\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin\n\nimport kotlin.experimental.*\nimport kotlin.jvm.*\n\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@JvmInline\npublic value class UShort @PublishedApi internal constructor(@PublishedApi internal val data: Short) : Comparable<UShort> {\n\n    companion object {\n\n        /**\n         * A constant holding the minimum value an instance of UShort can have.\n         *\n         * public const val MIN_VALUE: UShort = UShort(0)\n         *\n         * A constant holding the maximum value an instance of UShort can have.\n         *\n         * public const val MAX_VALUE: UShort = UShort(-1)\n         *\n         * The number of bytes used to represent an instance of UShort in a binary form.\n         *\n         * public const val SIZE_BYTES: Int = 2\n         *\n         * The number of bits used to represent an instance of UShort in a binary form.\n         *\n         * public const val SIZE_BITS: Int = 16\n         * }\n         *\n         * Compares this value with the specified value for order.\n         * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n         * or a positive number if it's greater than other.\n         *\n         * @kotlin.internal.InlineOnly\n         * public inline operator fun compareTo(other: UByte): Int = this.toInt().compareTo(other.toInt())\n         *\n         * Compares this value with the specified value for order.\n         * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n         * or a positive number if it's greater than other.\n         *\n         * @kotlin.internal.InlineOnly\n         * @Suppress("OVERRIDE_BY_INLINE")\n         * public override inline operator fun compareTo(other: UShort): Int = this.toInt().compareTo(other.toInt())\n         *\n         * Compares this value with the specified value for order.\n         * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n         * or a positive number if it's greater than other.\n         *\n         * @kotlin.internal.InlineOnly\n         * public inline operator fun compareTo(other: UInt): Int = this.toUInt().compareTo(other)\n         *\n         * Compares this value with the specified value for order.\n         * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n         * or a positive number if it's greater than other.\n         *\n         * @kotlin.internal.InlineOnly\n         * public inline operator fun compareTo(other: ULong): Int = this.toULong().compareTo(other)\n         *\n         * Adds the other value to this value.\n         *\n         * @kotlin.internal.InlineOnly\n         * public inline operator fun plus(other: UByte): UInt = this.toUInt().plus(other.toUInt())\n         *\n         * Adds the other value to this value.\n         *\n         * @kotlin.internal.InlineOnly\n         * public inline operator fun plus(other: UShort): UInt = this.toUInt().plus(other.toUInt())\n         *\n         * Adds the other value to this value.\n         *\n         * @kotlin.internal.InlineOnly\n         * public inline operator fun plus(other: UInt): UInt = this.toUInt().plus(other)\n         *\n         * Adds the other value to this value.\n         *\n         * @kotlin.internal.InlineOnly\n         * public inline operator fun plus(other: ULong): ULong = this.toULong().plus(other)\n         *\n         * Subtracts the other value from this value.\n         *\n         * @kotlin.internal.InlineOnly\n         * public inline operator fun minus(other: UByte): UInt = this.toUInt().minus(other.toUInt())\n         *\n         * Subtracts the other value from this value.\n         *\n         * @kotlin.internal.InlineOnly\n         * public inline operator fun minus(other: UShort): UInt = this.toUInt().minus(other.toUInt())\n         *\n         * Subtracts the other value from this value.\n         *\n         * @kotlin.internal.InlineOnly\n         * public inline operator fun minus(other: UInt): UInt = this.toUInt().minus(other)\n         *\n         * Subtracts the other value from this value.\n         *\n         * @kotlin.internal.InlineOnly\n         * public inline operator fun minus(other: ULong): ULong = this.toULong().minus(other)\n         *\n         * Multiplies this value by the other value.\n         *\n         * @kotlin.internal.InlineOnly\n         * public inline operator fun times(other: UByte): UInt = this.toUInt().times(other.toUInt())\n         *\n         * Multiplies this value by the other value.\n         *\n         * @kotlin.internal.InlineOnly\n         * public inline operator fun times(other: UShort): UInt =

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this.toUInt().times(other.toUInt())\n  /** Multiplies this value by the other value. */\n
@kotlin.internal.InlineOnly\n  public inline operator fun times(other: UInt): UInt = this.toUInt().times(other)\n
/** Multiplies this value by the other value. */\n  @kotlin.internal.InlineOnly\n  public inline operator fun
times(other: ULong): ULong = this.toULong().times(other)\n\n  /** Divides this value by the other value,
truncating the result to an integer that is closer to zero. */\n  @kotlin.internal.InlineOnly\n  public inline operator
fun div(other: UByte): UInt =
  this.toUInt().div(other.toUInt())\n  /** Divides this value by the other value, truncating the result to an integer that
is closer to zero. */\n  @kotlin.internal.InlineOnly\n  public inline operator fun div(other: UShort): UInt =
this.toUInt().div(other.toUInt())\n  /** Divides this value by the other value, truncating the result to an integer that
is closer to zero. */\n  @kotlin.internal.InlineOnly\n  public inline operator fun div(other: UInt): UInt =
this.toUInt().div(other)\n  /** Divides this value by the other value, truncating the result to an integer that is closer
to zero. */\n  @kotlin.internal.InlineOnly\n  public inline operator fun div(other: ULong): ULong =
this.toULong().div(other)\n\n  /**\n   * Calculates the remainder of truncating division of this value by the other
value.\n   * \n   * The result is always less than the divisor.\n   */\n  @kotlin.internal.InlineOnly\n  public
inline operator fun rem(other: UByte): UInt = this.toUInt().rem(other.toUInt())\n
  /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result
is always less than the divisor.\n   */\n  @kotlin.internal.InlineOnly\n  public inline operator fun rem(other:
UShort): UInt = this.toUInt().rem(other.toUInt())\n  /**\n   * Calculates the remainder of truncating division of
this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n
@kotlin.internal.InlineOnly\n  public inline operator fun rem(other: UInt): UInt = this.toUInt().rem(other)\n  /**\n
   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always
less than the divisor.\n   */\n  @kotlin.internal.InlineOnly\n  public inline operator fun rem(other: ULong):
ULong = this.toULong().rem(other)\n\n  /**\n   * Divides this value by the other value, flooring the result to an
integer that is closer to negative
infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n
*/\n  @kotlin.internal.InlineOnly\n  public inline fun floorDiv(other: UByte): UInt =
this.toUInt().floorDiv(other.toUInt())\n  /**\n   * Divides this value by the other value, flooring the result to an
integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and
truncating division are the same.\n   */\n  @kotlin.internal.InlineOnly\n  public inline fun floorDiv(other:
UShort): UInt = this.toUInt().floorDiv(other.toUInt())\n  /**\n   * Divides this value by the other value, flooring
the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring
division and truncating division are the same.\n   */\n  @kotlin.internal.InlineOnly\n  public inline fun
floorDiv(other: UInt): UInt = this.toUInt().floorDiv(other)\n  /**\n
   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n
   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n
@kotlin.internal.InlineOnly\n  public inline fun floorDiv(other: ULong): ULong =
this.toULong().floorDiv(other)\n\n  /**\n   * Calculates the remainder of flooring division of this value by the
other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders
of flooring division and truncating division are the same.\n   */\n  @kotlin.internal.InlineOnly\n  public inline
fun mod(other: UByte): UByte = this.toUInt().mod(other.toUInt()).toUByte()\n  /**\n   * Calculates the remainder
of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n
   * For unsigned types, the remainders of flooring division and truncating
division are the same.\n   */\n  @kotlin.internal.InlineOnly\n  public inline fun mod(other: UShort): UShort =
this.toUInt().mod(other.toUInt()).toUShort()\n  /**\n   * Calculates the remainder of flooring division of this
value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types,
the remainders of flooring division and truncating division are the same.\n   */\n  @kotlin.internal.InlineOnly\n
public inline fun mod(other: UInt): UInt = this.toUInt().mod(other)\n  /**\n   * Calculates the remainder of
flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n
   */

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* For unsigned types, the remainders of flooring division and truncating division are the same.\n    *\n
@kotlin.internal.InlineOnly\n    public inline fun mod(other: ULong): ULong = this.toULong().mod(other)\n\n
/**\n    * Returns this value incremented by one.\n
    *\n    * @sample samples.misc.Builtins.inc\n    *\n    @kotlin.internal.InlineOnly\n    public inline operator fun
inc(): UShort = UShort(data.inc())\n\n    /**\n    * Returns this value decremented by one.\n    *\n    * @sample
samples.misc.Builtins.dec\n    *\n    @kotlin.internal.InlineOnly\n    public inline operator fun dec(): UShort =
UShort(data.dec())\n\n    /** Creates a range from this value to the specified [other] value. *\n
    @kotlin.internal.InlineOnly\n    public inline operator fun rangeTo(other: UShort): UIntRange =
UIntRange(this.toUInt(), other.toUInt())\n\n    /** Performs a bitwise AND operation between the two values. *\n
    @kotlin.internal.InlineOnly\n    public inline infix fun and(other: UShort): UShort = UShort(this.data and
other.data)\n\n    /** Performs a bitwise OR operation between the two values. *\n    @kotlin.internal.InlineOnly\n
public inline infix fun or(other: UShort): UShort = UShort(this.data or other.data)\n\n    /** Performs a
bitwise XOR operation between the two values. *\n    @kotlin.internal.InlineOnly\n    public inline infix fun
xor(other: UShort): UShort = UShort(this.data xor other.data)\n\n    /** Inverts the bits in this value. *\n
    @kotlin.internal.InlineOnly\n    public inline fun inv(): UShort = UShort(data.inv())\n\n    /**\n    * Converts this
[UShort] value to [Byte].\n    *\n    * If this value is less than or equals to [Byte.MAX_VALUE], the resulting
`Byte` value represents\n    * the same numerical value as this `UShort`.\n    *\n    * The resulting `Byte` value is
represented by the least significant 8 bits of this `UShort` value.\n    * Note that the resulting `Byte` value may be
negative.\n    *\n    @kotlin.internal.InlineOnly\n    public inline fun toByte(): Byte = data.toByte()\n\n    /**\n    *
Converts this [UShort] value to [Short].\n    *\n    * If this value is less than or equals to [Short.MAX_VALUE],
the resulting `Short` value represents\n    * the same numerical
value as this `UShort`. Otherwise the result is negative.\n    *\n    * The resulting `Short` value has the same binary
representation as this `UShort` value.\n    *\n    @kotlin.internal.InlineOnly\n    public inline fun toShort(): Short =
data\n\n    /**\n    * Converts this [UShort] value to [Int].\n    *\n    * The resulting `Int` value represents the same
numerical value as this `UShort`.\n    *\n    * The least significant 16 bits of the resulting `Int` value are the same as
the bits of this `UShort` value,\n    * whereas the most significant 16 bits are filled with zeros.\n    *\n
    @kotlin.internal.InlineOnly\n    public inline fun toInt(): Int = data.toInt() and 0xFFFF\n\n    /**\n    * Converts this
[UShort] value to [Long].\n    *\n    * The resulting `Long` value represents the same numerical value as this
`UShort`.\n    *\n    * The least significant 16 bits of the resulting `Long` value are the same as the bits of this
`UShort` value,\n    * whereas the most
significant 48 bits are filled with zeros.\n    *\n    @kotlin.internal.InlineOnly\n    public inline fun toLong(): Long
= data.toLong() and 0xFFFF\n\n    /**\n    * Converts this [UShort] value to [UByte].\n    *\n    * If this value is
less than or equals to [UByte.MAX_VALUE], the resulting `UByte` value represents\n    * the same numerical
value as this `UShort`.\n    *\n    * The resulting `UByte` value is represented by the least significant 8 bits of this
`UShort` value.\n    *\n    @kotlin.internal.InlineOnly\n    public inline fun toUByte(): UByte = data.toUByte()\n
    /** Returns this value. *\n    @kotlin.internal.InlineOnly\n    public inline fun toUShort(): UShort = this\n\n    /**\n    *
Converts this [UShort] value to [UInt].\n    *\n    * The resulting `UInt` value represents the same numerical
value as this `UShort`.\n    *\n    * The least significant 16 bits of the resulting `UInt` value are the same as the bits
of this `UShort` value,\n    * whereas
the most significant 16 bits are filled with zeros.\n    *\n    @kotlin.internal.InlineOnly\n    public inline fun
toUInt(): UInt = UInt(data.toInt() and 0xFFFF)\n\n    /**\n    * Converts this [UShort] value to [ULong].\n    *\n    *
The resulting `ULong` value represents the same numerical value as this `UShort`.\n    *\n    * The least significant
16 bits of the resulting `ULong` value are the same as the bits of this `UShort` value,\n    * whereas the most
significant 48 bits are filled with zeros.\n    *\n    @kotlin.internal.InlineOnly\n    public inline fun toULong():
ULong = ULong(data.toLong() and 0xFFFF)\n\n    /**\n    * Converts this [UShort] value to [Float].\n    *\n    *
The resulting `Float` value represents the same numerical value as this `UShort`.\n    *\n
    @kotlin.internal.InlineOnly\n    public inline fun toFloat(): Float = this.toInt().toFloat()\n\n    /**\n    * Converts this
[UShort] value to [Double].\n    *\n    * The resulting `Double` value

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represents the same numerical value as this `UShort`.
 */
@kotlin.internal.InlineOnly
public inline fun
toDouble(): Double = this.toInt().toDouble()
public override fun toString(): String =
toInt().toString()
}
}
/**
 * Converts this [Byte] value to [UShort].
 */
 * If this value is positive, the
resulting `UShort` value represents the same numerical value as this `Byte`
value,
 * The least significant 8 bits of the
resulting `UShort` value are the same as the bits of this `Byte` value,
 * whereas the most significant 8 bits are
filled with the sign bit of this value.
}
}
@SinceKotlin("1.5")
@WasExperimental(ExperimentalUnsignedTypes::class)
@kotlin.internal.InlineOnly
public inline fun Byte.toUShort(): UShort = UShort(this.toShort())
/**
 * Converts this [Short] value to
[UShort].
 */
 * If this value is positive, the resulting `UShort` value represents the same numerical value as this
`Short`.
 */
 * The resulting `UShort` value has the same binary
representation as this `Short` value.
}
}
@SinceKotlin("1.5")
@WasExperimental(ExperimentalUnsignedTypes::class)
@kotlin.internal.InlineOnly
public inline fun Short.toUShort(): UShort = UShort(this)
/**
 * Converts this [Int] value to [UShort].
 */
 * If
this value is positive and less than or equals to [UShort.MAX_VALUE], the resulting `UShort` value represents
 * the same numerical value as this `Int`.
 */
 * The resulting `UShort` value is represented by the least significant 16
bits of this `Int` value.
}
}
@SinceKotlin("1.5")
@WasExperimental(ExperimentalUnsignedTypes::class)
@kotlin.internal.InlineOnly
public inline fun Int.toUShort(): UShort = UShort(this.toShort())
/**
 * Converts this [Long] value to
[UShort].
 */
 * If this value is positive and less than or equals to [UShort.MAX_VALUE], the resulting `UShort`
value represents
 * the same numerical value as this `Long`.
 */
 * The resulting `UShort` value is represented by
the least significant 16
bits of this `Long` value.
}
}
@SinceKotlin("1.5")
@WasExperimental(ExperimentalUnsignedTypes::class)
@kotlin.internal.InlineOnly
public inline fun Long.toUShort(): UShort = UShort(this.toShort())
}
}
/* Copyright 2010-2022 JetBrains s.r.o.
and Kotlin Programming Language contributors.
 * Use of this source code is governed by the Apache 2.0 license
that can be found in the license/LICENSE.txt file.
 */
// Auto-generated file. DO NOT EDIT!
package
kotlin.ranges
/**
 * A range of values of type `Char`.
 */
public class CharRange(start: Char, endInclusive:
Char) : CharProgression(start, endInclusive, 1), ClosedRange<Char> {
    override val start: Char get() = first
    override val endInclusive: Char get() = last
    override fun contains(value: Char): Boolean = first <= value &&
value <= last
    /**
     * Checks whether the range is empty.
     */
     * The range is empty if its start value is
greater than the end value.
 */
    override fun
isEmpty(): Boolean = first > last
    override fun equals(other: Any?): Boolean =
other is CharRange &&
(isEmpty() && other.isEmpty() ||
first == other.first && last == other.last)
    override fun hashCode(): Int =
if (isEmpty()) -1 else (31 * first.code + last.code)
    override fun toString(): String = "$first..$last"
    companion object {
        /**
         * An empty range of values of type Char.
         */
        public val EMPTY: CharRange =
CharRange(1.toChar(), 0.toChar())
    }
}
/**
 * A range of values of type `Int`.
 */
public class
IntRange(start: Int, endInclusive: Int) : IntProgression(start, endInclusive, 1), ClosedRange<Int> {
    override val
start: Int get() = first
    override val endInclusive: Int get() = last
    override fun contains(value: Int): Boolean =
first <= value && value <= last
    /**
     * Checks whether the range is empty.
     */
     * The range is empty
if its start value is greater than the end value.
 */
    override fun
isEmpty(): Boolean = first > last
    override fun equals(other: Any?): Boolean =
other is IntRange && (isEmpty() && other.isEmpty() ||
first == other.first && last == other.last)
    override fun hashCode(): Int =
if (isEmpty()) -1 else (31 * first + last)
    override fun toString(): String =
"$first..$last"
    companion object {
        /**
         * An empty range of values of type Int.
         */
        public val
EMPTY: IntRange = IntRange(1, 0)
    }
}
/**
 * A range of values of type `Long`.
 */
public class
LongRange(start: Long, endInclusive: Long) : LongProgression(start, endInclusive, 1), ClosedRange<Long> {
    override val
start: Long get() = first
    override val endInclusive: Long get() = last
    override fun
contains(value: Long): Boolean = first <= value && value <= last
    /**
     * Checks whether the range is

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empty.\n    *\n    * The range is empty if its start value is greater than
the end value.\n    */\n    override fun isEmpty(): Boolean = first > last\n\n    override fun equals(other: Any?):
Boolean =\n        other is LongRange && (isEmpty() && other.isEmpty()) ||\n        first == other.first && last ==
other.last\n\n    override fun hashCode(): Int =\n        if (isEmpty()) -1 else (31 * (first xor (first ushr 32)) + (last xor
(last ushr 32))).toInt()\n\n    override fun toString(): String = \"$first..$last\"\n\n    companion object {\n        /** An
empty range of values of type Long. */\n        public val EMPTY: LongRange = LongRange(1, 0)\n    }\n\n    /**\n    * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n    * Use of this source code
is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n    @file: kotlin.jvm.JvmMultifileClass\n    @file: kotlin.jvm.JvmName("CollectionsKt")\n    @file: OptIn(kotlin.exper
imental.ExperimentalTypeInference::class)\n\n    package kotlin.collections\n\n    import kotlin.contracts.*\n    import
kotlin.random.Random\n\n    internal object EmptyIterator : ListIterator<Nothing> {\n        override fun hasNext():
Boolean = false\n        override fun hasPrevious(): Boolean = false\n        override fun nextIndex(): Int = 0\n        override
fun previousIndex(): Int = -1\n        override fun next(): Nothing = throw NoSuchElementException()\n        override fun
previous(): Nothing = throw NoSuchElementException()\n    }\n\n    internal object EmptyList : List<Nothing>,
Serializable, RandomAccess {\n        private const val serialVersionUID: Long = -7390468764508069838L\n\n        override fun equals(other: Any?): Boolean = other is List<*> && other.isEmpty()\n        override fun hashCode(): Int
= 1\n        override fun toString(): String = "[]"\n        override val size: Int get() = 0\n        override fun isEmpty():
Boolean = true\n        override fun contains(element: Nothing): Boolean = false\n        override fun containsAll(elements:
Collection<Nothing>): Boolean = elements.isEmpty()\n        override fun get(index:
Int): Nothing = throw IndexOutOfBoundsException("Empty list doesn't contain element at index $index.")\n        override fun
indexOf(element: Nothing): Int = -1\n        override fun lastIndexOf(element: Nothing): Int = -1\n        override fun
iterator(): Iterator<Nothing> = EmptyIterator\n        override fun listIterator(): ListIterator<Nothing> =
EmptyIterator\n        override fun listIterator(index: Int): ListIterator<Nothing> {\n            if (index != 0) throw
IndexOutOfBoundsException("Index: $index")\n            return EmptyIterator\n        }\n        override fun
subList(fromIndex: Int, toIndex: Int): List<Nothing> {\n            if (fromIndex == 0 && toIndex == 0) return this\n            throw IndexOutOfBoundsException("fromIndex: $fromIndex, toIndex: $toIndex")\n        }\n        private fun
readResolve(): Any = EmptyList\n    }\n\n    internal fun <T> Array<out T>.asCollection(): Collection<T> =
ArrayAsCollection(this, isVarargs = false)\n\n    private class ArrayAsCollection<T>(val values: Array<out T>, val
isVarargs:
Boolean) : Collection<T> {\n        override val size: Int get() = values.size\n        override fun isEmpty(): Boolean =
values.isEmpty()\n        override fun contains(element: T): Boolean = values.contains(element)\n        override fun
containsAll(elements: Collection<T>): Boolean = elements.all { contains(it) }\n        override fun iterator():
Iterator<T> = values.iterator()\n        // override hidden toArray implementation to prevent copying of values array\n        public fun toArray(): Array<out Any?> = values.copyToArrayOfAny(isVarargs)\n    }\n\n    /**\n    * Returns an empty
read-only list. The returned list is serializable (JVM).\n    * @sample
samples.collections.Collections.Lists.emptyReadOnlyList\n    */\n    public fun <T> emptyList(): List<T> =
EmptyList\n\n    /**\n    * Returns a new read-only list of given elements. The returned list is serializable (JVM).\n    *
@sample samples.collections.Collections.Lists.readOnlyList\n    */\n    public fun <T> listOf(vararg elements: T):
List<T> = if (elements.size > 0) elements.asList()\n        else emptyList()\n\n    /**\n    * Returns an empty read-only list. The returned list is serializable (JVM).\n    * @sample
samples.collections.Collections.Lists.emptyReadOnlyList\n    */\n    @kotlin.internal.InlineOnly\n    public inline fun <T>
listOf(): List<T> = emptyList()\n\n    /**\n    * Returns an empty new [MutableList].\n    * @sample
samples.collections.Collections.Lists.emptyMutableList\n    */\n    @SinceKotlin("1.1")\n    @kotlin.internal.InlineOnly\n    public inline fun <T> mutableListOf(): MutableList<T> =
ArrayList()\n\n    /**\n    * Returns an empty new [ArrayList].\n    * @sample
samples.collections.Collections.Lists.emptyArrayList\n    */\n    @SinceKotlin("1.1")\n    @kotlin.internal.InlineOnly\n    public inline fun <T> arrayListOf(): ArrayList<T> =
ArrayList()\n\n    /**\n    * Returns a new [MutableList] with the given elements.\n    * @sample

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samples.collections.Collections.Lists.mutableList\n *\npublic fun <T> mutableListOf(vararg elements: T):
MutableList<T> =\n if (elements.size == 0) ArrayList() else ArrayList(ArrayAsCollection(elements,
isVarargs = true))\n\n/**\n * Returns a new [ArrayList] with the given elements.\n * @sample
samples.collections.Collections.Lists.arrayList\n *\npublic fun <T> arrayListOf(vararg elements: T): ArrayList<T>
=\n if (elements.size == 0) ArrayList() else ArrayList(ArrayAsCollection(elements, isVarargs = true))\n\n/**\n *
Returns a new read-only list either of single given element, if it is not null, or empty list if the element is null. The
returned list is serializable (JVM).\n * @sample samples.collections.Collections.Lists.listOfNotNull\n *\npublic fun
<T : Any> listOfNotNull(element: T?): List<T> = if (element != null) listOf(element) else emptyList()\n\n/**\n *
Returns a new read-only list only of those given elements, that are not null. The returned list is serializable
(JVM).\n * @sample samples.collections.Collections.Lists.listOfNotNull\n *\npublic fun <T : Any>
listOfNotNull(vararg elements: T?): List<T> = elements.filterNotNull()\n\n/**\n * Creates
a new read-only list with the specified [size], where each element is calculated by calling the specified\n * [init]
function.\n * The function [init] is called for each list element sequentially starting from the first one.\n * It
should return the value for a list element given its index.\n * @sample
samples.collections.Collections.Lists.readOnlyListFromInitializer\n
*\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline fun <T> List(size: Int, init: (index: Int) -> T):
List<T> = MutableList(size, init)\n\n/**\n * Creates a new mutable list with the specified [size], where each element
is calculated by calling the specified\n * [init] function.\n * The function [init] is called for each list element
sequentially starting from the first one.\n * It should return the value for a list element given its index.\n * @sample
samples.collections.Collections.Lists.mutableListFromInitializer\n
*\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline
fun <T> MutableList(size: Int, init: (index: Int) -> T): MutableList<T> {\n val list = ArrayList<T>(size)\n
repeat(size) { index -> list.add(init(index)) }\n return list\n}\n\n/**\n * Builds a new read-only [List] by
populating a [MutableList] using the given [builderAction]\n * and returning a read-only list with the same
elements.\n * The list passed as a receiver to the [builderAction] is valid only inside that function.\n * Using it
outside of the function produces an unspecified behavior.\n * The returned list is serializable (JVM).\n * @sample
samples.collections.Builders.Lists.buildListSample\n
*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic
inline fun <E> buildList(@BuilderInference builderAction: MutableList<E>().-> Unit): List<E> {\n contract {
callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n return
buildListInternal(builderAction)\n}\n\n@PublishedApi\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\ninternal
expect inline fun <E> buildListInternal(builderAction: MutableList<E>().-> Unit): List<E>\n\n/**\n * Builds a
new read-only [List] by populating a [MutableList] using the given [builderAction]\n * and returning a read-only list
with the same elements.\n * The list passed as a receiver to the [builderAction] is valid only inside that
function.\n * Using it outside of the function produces an unspecified behavior.\n * The returned list is
serializable (JVM).\n * [capacity] is used to hint the expected number of elements added in the
[builderAction].\n * @throws IllegalArgumentException if the given [capacity] is negative.\n * @sample
samples.collections.Builders.Lists.buildListSampleWithCapacity\n
*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic
inline fun <E> buildList(capacity: Int, @BuilderInference builderAction: MutableList<E>().-> Unit): List<E> {\n
contract
{ callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n return buildListInternal(capacity,
builderAction)\n}\n\n@PublishedApi\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\ninternal expect inline
fun <E> buildListInternal(capacity: Int, builderAction: MutableList<E>().-> Unit): List<E>\n\n/**\n * Returns an
[IntRange] of the valid indices for this collection.\n * @sample
samples.collections.Collections.Collections.indicesOfCollection\n *\npublic val Collection<*>.indices: IntRange\n
get() = 0..size - 1\n\n/**\n * Returns the index of the last item in the list or -1 if the list is empty.\n * @sample

```

```

samples.collections.Collections.Lists.lastIndexOfList\n *^\\npublic val <T> List<T>.lastIndex: Int\n  get() =
this.size - 1\\n\\n/**\\n * Returns `true` if the collection is not empty.\\n * @sample
samples.collections.Collections.Collections.collectionIsNotEmpty\n *^\\n@kotlin.internal.InlineOnly\\npublic inline
fun <T> Collection<T>.isNotEmpty(): Boolean = !isEmpty()\\n\\n/**\\n
* Returns `true` if this nullable collection is either null or empty.\\n * @sample
samples.collections.Collections.Collections.collectionOrNull\n *^\\n@SinceKotlin("1.3")\\n@kotlin.internal.InlineOnly\\npublic inline fun <T> Collection<T>?.isNullOrNull():
Boolean {\\n  contract {\\n    returns(false) implies (this@isNullOrNull != null)\\n  }\\n  return this == null ||
this.isEmpty()\\n}\\n\\n/**\\n * Returns this Collection if it's not `null` and the empty list otherwise.\\n * @sample
samples.collections.Collections.Collections.collectionOrNull\n *^\\n@kotlin.internal.InlineOnly\\npublic inline fun
<T> Collection<T>?.orEmpty(): Collection<T> = this ?: emptyList()\\n\\n/**\\n * Returns this List if it's not `null` and
the empty list otherwise.\\n * @sample samples.collections.Collections.Lists.listOrNull\n *^\\n@kotlin.internal.InlineOnly\\npublic inline fun <T> List<T>?.orEmpty(): List<T> = this ?: emptyList()\\n\\n/**\\n
* Returns this collection if it's not empty\\n * or the
result of calling [defaultValue] function if the collection is empty.\\n *\\n * @sample
samples.collections.Collections.Collections.collectionIfEmpty\n *^\\n@SinceKotlin("1.3")\\n@kotlin.internal.InlineOnly\\npublic inline fun <C, R> C.ifEmpty(defaultValue: () ->
R): R where C : Collection<*>, C : R =\\n  if (isEmpty()) defaultValue() else this\\n\\n/**\\n * Checks if all
elements in the specified collection are contained in this collection.\\n *\\n * Allows to overcome type-safety
restriction of `containsAll` that requires to pass a collection of type `Collection<E>`.\\n * @sample
samples.collections.Collections.Collections.collectionContainsAll\n *^\\n@Suppress("EXTENSION_SHADOWED_BY_MEMBER") // false warning, extension takes precedence in
some cases\\n@kotlin.internal.InlineOnly\\npublic inline fun <@kotlin.internal.OnlyInputTypes T>
Collection<T>.containsAll(elements: Collection<T>): Boolean = this.containsAll(elements)\\n\\n/**\\n * Returns a
new list with the elements of this list randomly
shuffled\\n * using the specified [random] instance as the source of randomness.\\n
*^\\n@SinceKotlin("1.3")\\npublic fun <T> Iterable<T>.shuffled(random: Random): List<T> =
toMutableList().apply { shuffle(random) }\\n\\ninternal fun <T> List<T>.optimizeReadOnlyList() = when (size) {\\n
0 -> emptyList()\\n 1 -> listOf(this[0])\\n  else -> this\\n}\\n\\n/**\\n * Searches this list or its range for the provided
[element] using the binary search algorithm.\\n * The list is expected to be sorted into ascending order according to
the Comparable natural ordering of its elements,\\n * otherwise the result is undefined.\\n *\\n * If the list contains
multiple elements equal to the specified [element], there is no guarantee which one will be found.\\n *\\n * `null`
value is considered to be less than any non-null value.\\n *\\n * @return the index of the element, if it is contained in
the list within the specified range;\\n * otherwise, the inverted insertion point `(-insertion point - 1)`.\\n * The
insertion point is defined as the index at which the element should be inserted,\\n * so that the list (or the specified
subrange of list) still remains sorted.\\n * @sample
samples.collections.Collections.Lists.binarySearchOnComparable\n * @sample
samples.collections.Collections.Lists.binarySearchWithBoundaries\n *^\\npublic fun <T : Comparable<T>>
List<T?>.binarySearch(element: T?, fromIndex: Int = 0, toIndex: Int = size): Int {\\n  rangeCheck(size, fromIndex,
toIndex)\\n\\n  var low = fromIndex\\n  var high = toIndex - 1\\n\\n  while (low <= high) {\\n    val mid = (low +
high).ushr(1) // safe from overflows\\n    val midVal = get(mid)\\n    val cmp = compareValues(midVal,
element)\\n\\n    if (cmp < 0)\\n      low = mid + 1\\n    else if (cmp > 0)\\n      high = mid - 1\\n    else\\n
return mid // key found\\n  }\\n  return -(low + 1) // key not found\\n}\\n\\n/**\\n * Searches this list or its range
for the provided [element] using the binary search
algorithm.\\n * The list is expected to be sorted into ascending order according to the specified [comparator],\\n *
otherwise the result is undefined.\\n *\\n * If the list contains multiple elements equal to the specified [element], there
is no guarantee which one will be found.\\n *\\n * `null` value is considered to be less than any non-null value.\\n *\\n *
@return the index of the element, if it is contained in the list within the specified range;\\n * otherwise, the inverted

```

insertion point ``(-insertion point - 1)``.  
 \* The insertion point is defined as the index at which the element should be inserted,  
 \* so that the list (or the specified subrange of list) still remains sorted according to the specified  
 [comparator].  
 \* @sample samples.collections.Collections.Lists.binarySearchWithComparator  
`\n * \npublic fun  
<T> List<T>.binarySearch(element: T, comparator: Comparator<in T>, fromIndex: Int = 0, toIndex: Int = size): Int  
{\n rangeCheck(size, fromIndex, toIndex)\n\n var low =  
fromIndex\n var high = toIndex - 1\n\n while (low <= high) {\n val mid = (low + high).ushr(1) // safe from  
overflows\n val midVal = get(mid)\n val cmp = comparator.compare(midVal, element)\n\n if (cmp <  
0)\n low = mid + 1\n else if (cmp > 0)\n high = mid - 1\n else\n return mid // key  
found\n }\n return -(low + 1) // key not found\n}\n\n**\n * Searches this list or its range for an element having  
the key returned by the specified [selector] function  
* equal to the provided [key] value using the binary search  
algorithm.  
* The list is expected to be sorted into ascending order according to the Comparable natural ordering of  
keys of its elements.  
* otherwise the result is undefined.  
* \n * \n * If the list contains multiple elements with the  
specified [key], there is no guarantee which one will be found.  
* \n * \n * `null` value is considered to be less than any  
non-null value.  
* \n * \n * @return the index  
of the element with the specified [key], if it is contained in the list within the specified range;  
* otherwise, the  
inverted insertion point `(-insertion point - 1)`.  
* The insertion point is defined as the index at which the element  
should be inserted,  
* so that the list (or the specified subrange of list) still remains sorted.  
* @sample  
samples.collections.Collections.Lists.binarySearchByKey  
* \n * \npublic inline fun <T, K : Comparable<K>>  
List<T>.binarySearchBy(\n key: K?,\n fromIndex: Int = 0,\n toIndex: Int = size,\n crossinline selector: (T) ->  
K?)\n): Int =\n binarySearch(fromIndex, toIndex) { compareValues(selector(it), key) }\n\n// do not introduce this  
overload --- too rare\n/public fun <T, K> List<T>.binarySearchBy(key: K, comparator: Comparator<K>,  
fromIndex: Int = 0, toIndex: Int = size(), selector: (T) -> K): Int =\n// binarySearch(fromIndex, toIndex) {\n  
comparator.compare(selector(it), key) }\n\n\n**\n * Searches this list or its range for an  
element for which the given [comparison] function returns zero using the binary search algorithm.  
* \n * \n * The list is  
expected to be sorted so that the signs of the [comparison] function's return values ascend on the list elements,  
* i.e. negative values come before zero and zeroes come before positive values.  
* Otherwise, the result is  
undefined.  
* \n * \n * If the list contains multiple elements for which [comparison] returns zero, there is no guarantee  
which one will be found.  
* \n * \n * @param comparison function that returns zero when called on the list element  
being searched.  
* On the elements coming before the target element, the function must return negative values;  
* \n * \n * on the elements coming after the target element, the function must return positive values.  
* \n * \n * @return the index  
of the found element, if it is contained in the list within the specified range;  
* otherwise, the inverted insertion  
point `(-insertion point - 1)`.  
* The insertion point is defined as the index  
at which the element should be inserted,  
* so that the list (or the specified subrange of list) still remains sorted.  
* \n * \n * @sample samples.collections.Collections.Lists.binarySearchWithComparisonFunction  
* \n * \npublic fun <T>  
List<T>.binarySearch(fromIndex: Int = 0, toIndex: Int = size, comparison: (T) -> Int): Int {\n rangeCheck(size,  
fromIndex, toIndex)\n\n var low = fromIndex\n var high = toIndex - 1\n\n while (low <= high) {\n val mid  
= (low + high).ushr(1) // safe from overflows\n val midVal = get(mid)\n val cmp = comparison(midVal)\n\n  
if (cmp < 0)\n low = mid + 1\n else if (cmp > 0)\n high = mid - 1\n else\n return  
mid // key found\n }\n return -(low + 1) // key not found\n}\n\n\n**\n * Checks that `from` and `to` are in  
* the range of [0..size] and throws an appropriate exception, if they aren't.  
* \n * \n * \nprivate fun rangeCheck(size: Int,  
fromIndex: Int, toIndex: Int) {\n when {\n  
fromIndex > toIndex -> throw IllegalArgumentException("fromIndex ($fromIndex) is greater than toIndex  
($toIndex).")\n fromIndex < 0 -> throw IndexOutOfBoundsException("fromIndex ($fromIndex) is less than  
zero.")\n toIndex > size -> throw IndexOutOfBoundsException("toIndex ($toIndex) is greater than size  
($size).")\n }\n}\n\n\n@PublishedApi\n@SinceKotlin("1.3")\ninternal expect fun checkIndexOverflow(index:  
Int): Int\n\n@PublishedApi\n@SinceKotlin("1.3")\ninternal expect fun checkCountOverflow(count: Int):  
Int\n\n\n@PublishedApi\n@SinceKotlin("1.3")\ninternal fun throwIndexOverflow() {\n throw  
ArithmeticException("Index overflow has happened.") }\n\n\n@PublishedApi\n@SinceKotlin("1.3")\ninternal fun`

```

throwCountOverflow() { throw ArithmeticException("Count overflow has happened.") }\n\n"/*\n * Copyright
2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed
by the Apache 2.0 license that can
be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("MapsKt")\n@file:OptIn(kotlin.experiment
al.ExperimentalTypeInference::class)\n\npackage kotlin.collections\n\nimport kotlin.contracts.*\n\nprivate object
EmptyMap : Map<Any?, Nothing>, Serializable {\n    private const val serialVersionUID: Long =
8246714829545688274\n\n    override fun equals(other: Any?): Boolean = other is Map<*, *> &&
other.isEmpty()\n    override fun hashCode(): Int = 0\n    override fun toString(): String = "{}"\n\n    override val
size: Int get() = 0\n    override fun isEmpty(): Boolean = true\n\n    override fun containsKey(key: Any?): Boolean =
false\n    override fun containsValue(value: Nothing): Boolean = false\n    override fun get(key: Any?): Nothing? =
null\n    override val entries: Set<Map.Entry<Any?, Nothing>> get() = EmptySet\n    override val keys: Set<Any?>
get() = EmptySet\n    override val values: Collection<Nothing> get() = EmptyList\n\n    private fun readResolve(): Any = EmptyMap\n}\n\n/**\n * Returns an empty read-only map of specified type.\n
*\n * The returned map is serializable (JVM).\n * @sample
samples.collections.Maps.Instantiation.emptyReadOnlyMap\n */\n\npublic fun <K, V> emptyMap(): Map<K, V> =
@Suppress("UNCHECKED_CAST") (EmptyMap as Map<K, V>)\n\n/**\n * Returns a new read-only map with
the specified contents, given as a list of pairs\n * where the first value is the key and the second is the value.\n *\n * If multiple pairs have the same key, the resulting map will contain the value from the last of those pairs.\n *\n * Entries of the map are iterated in the order they were specified.\n *\n * The returned map is serializable (JVM).\n
*\n * @sample samples.collections.Maps.Instantiation.mapFromPairs\n */\n\npublic fun <K, V> mapOf(vararg pairs:
Pair<K, V>): Map<K, V> =\n    if (pairs.size > 0) pairs.toMap(LinkedHashMap(mapCapacity(pairs.size))) else
emptyMap()\n\n/**\n * Returns an empty read-only map.\n
*\n * The returned map is serializable (JVM).\n * @sample
samples.collections.Maps.Instantiation.emptyReadOnlyMap\n */\n\n@kotlin.internal.InlineOnly\n\npublic inline fun
<K, V> mapOf(): Map<K, V> = emptyMap()\n\n/**\n * Returns an empty new [MutableMap].\n *\n * The returned
map preserves the entry iteration order.\n * @sample samples.collections.Maps.Instantiation.emptyMutableMap\n
*/\n\n@SinceKotlin("1.1")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun <K, V> mutableMapOf():
MutableMap<K, V> = LinkedHashMap()\n\n/**\n * Returns a new [MutableMap] with the specified contents, given
as a list of pairs\n * where the first component is the key and the second is the value.\n *\n * If multiple pairs have
the same key, the resulting map will contain the value from the last of those pairs.\n *\n * Entries of the map are
iterated in the order they were specified.\n *\n * @sample
samples.collections.Maps.Instantiation.mutableMapFromPairs\n * @sample
samples.collections.Maps.Instantiation.emptyMutableMap\n
*/\n\npublic fun <K, V> mutableMapOf(vararg pairs: Pair<K, V>): MutableMap<K, V> =\n    LinkedHashMap<K,
V>(mapCapacity(pairs.size)).apply { putAll(pairs) }\n\n/**\n * Returns an empty new [HashMap].\n *\n * @sample
samples.collections.Maps.Instantiation.emptyHashMap\n
*/\n\n@SinceKotlin("1.1")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun <K, V> hashMapOf(): HashMap<K, V>
= HashMap<K, V>()\n\n/**\n * Returns a new [HashMap] with the specified contents, given as a list of pairs\n *
where the first component is the key and the second is the value.\n *\n * @sample
samples.collections.Maps.Instantiation.hashMapFromPairs\n */\n\npublic fun <K, V> hashMapOf(vararg pairs:
Pair<K, V>): HashMap<K, V> = HashMap<K, V>(mapCapacity(pairs.size)).apply { putAll(pairs) }\n\n/**\n * Returns an empty new [LinkedHashMap].\n
*/\n\n@SinceKotlin("1.1")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun <K, V> linkedMapOf():
LinkedHashMap<K, V> = LinkedHashMap<K, V>()\n\n/**\n * Returns a new
[LinkedHashMap]
with the specified contents, given as a list of pairs\n * where the first component is the key and the second is the
value.\n *\n * If multiple pairs have the same key, the resulting map will contain the value from the last of those
pairs.\n *\n * Entries of the map are iterated in the order they were specified.\n *\n * @sample

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samples.collections.Maps.Instantiation.linkedMapFromPairs\n *^npublic fun <K, V> linkedMapOf(vararg pairs:
Pair<K, V>): LinkedHashMap<K, V> = pairs.toMap(LinkedHashMap(mapCapacity(pairs.size)))\n\n/**\n * Builds
a new read-only [Map] by populating a [MutableMap] using the given [builderAction]\n * and returning a read-only
map with the same key-value pairs.\n * \n * The map passed as a receiver to the [builderAction] is valid only inside
that function.\n * Using it outside of the function produces an unspecified behavior.\n * \n * Entries of the map are
iterated in the order they were added by the [builderAction].\n * \n * The returned map is serializable
(JVM).\n * \n * @sample samples.collections.Builders.Maps.buildMapSample\n
*^n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic
inline fun <K, V> buildMap(@BuilderInference builderAction: MutableMap<K, V>().->Unit): Map<K, V> {\n
contract { callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n return
buildMapInternal(builderAction)\n}\n\n@PublishedApi\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\ninternal
expect inline fun <K, V> buildMapInternal(builderAction: MutableMap<K, V>().->Unit): Map<K,
V>\n\n/**\n * Builds a new read-only [Map] by populating a [MutableMap] using the given [builderAction]\n * and
returning a read-only map with the same key-value pairs.\n * \n * The map passed as a receiver to the
[builderAction] is valid only inside that function.\n * Using it outside of the function produces an unspecified
behavior.\n * \n * [capacity] is used to hint the expected number of pairs added in the
[builderAction].\n * \n * Entries of the map are iterated in the order they were added by the [builderAction].\n * \n *
The returned map is serializable (JVM).\n * \n * @throws IllegalArgumentException if the given [capacity] is
negative.\n * \n * @sample samples.collections.Builders.Maps.buildMapSample\n
*^n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic
inline fun <K, V> buildMap(capacity: Int, @BuilderInference builderAction: MutableMap<K, V>().->Unit):
Map<K, V> {\n contract { callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n return
buildMapInternal(capacity,
builderAction)\n}\n\n@PublishedApi\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\ninternal expect inline
fun <K, V> buildMapInternal(capacity: Int, builderAction: MutableMap<K, V>().->Unit): Map<K, V>\n\n/**\n *
Calculate the initial capacity of a map.\n *^n@PublishedApi\ninternal expect fun mapCapacity(expectedSize: Int):
Int\n\n/**\n * Returns
`true` if this map is not empty.\n * @sample samples.collections.Maps.Usage.mapIsNotEmpty\n
*^n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.isNotEmpty(): Boolean =
!isEmpty()\n\n/**\n * Returns `true` if this nullable map is either null or empty.\n * @sample
samples.collections.Maps.Usage.mapIsNullOrEmpty\n
*^n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K,
V>?.isNullOrEmpty(): Boolean {\n contract {\n returns(false) implies (this@isNullOrEmpty != null)\n }\n\n
return this == null || isEmpty()\n}\n\n/**\n * Returns the [Map] if its not `null`, or the empty [Map] otherwise.\n
*\n * @sample samples.collections.Maps.Usage.mapOrElse\n *^n@kotlin.internal.InlineOnly\npublic inline fun
<K, V> Map<K, V>?.orElse(): Map<K, V> = this ?: emptyMap()\n\n/**\n * Returns this map if it's not empty\n *
or the result of calling [defaultValue] function if the map is empty.\n * \n * @sample
samples.collections.Maps.Usage.mapIfEmpty\n
*^n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline fun <M, R> M.ifEmpty(defaultValue: () ->
R): R where M : Map<*, *>, M : R =\n if (isEmpty()) defaultValue() else this\n\n/**\n * Checks if the map
contains the given key.\n * \n * This method allows to use the `x in map` syntax for checking whether an object is
contained in the map.\n * \n * @sample samples.collections.Maps.Usage.containsKey\n
*^n@kotlin.internal.InlineOnly\npublic inline operator fun <@kotlin.internal.OnlyInputTypes K, V> Map<out K,
V>.contains(key: K): Boolean = containsKey(key)\n\n/**\n * Returns the value corresponding to the given [key], or
`null` if such a key is not present in the map.\n *^n@kotlin.internal.InlineOnly\npublic inline operator fun
<@kotlin.internal.OnlyInputTypes K, V> Map<out K, V>.get(key: K): V? =\n
@Suppress("UNCHECKED_CAST") (this as Map<K, V>).get(key)\n\n/**\n * Allows to use the index operator
for storing values in a mutable map.\n *^n@kotlin.internal.InlineOnly\npublic

```

```

inline operator fun <K, V> MutableMap<K, V>.set(key: K, value: V): Unit {
    put(key, value)
}

Returns `true` if the map contains the specified [key].
Allows to overcome type-safety restriction of `containsKey` that requires to pass a key of type `K`.
@kotlin.internal.InlineOnly
public inline fun
<@kotlin.internal.OnlyInputTypes K> Map<out K, *>.containsKey(key: K): Boolean =
    @Suppress("UNCHECKED_CAST") (this as Map<K, *>).containsKey(key)

Returns `true` if the map maps one or more keys to the specified [value].
Allows to overcome type-safety restriction of `containsValue` that requires to pass a value of type `V`.
@sample
samples.collections.Maps.Usage.containsValue
^
@Suppress("EXTENSION_SHADOWED_BY_MEMBER")
// false warning, extension takes precedence in some cases
@kotlin.internal.InlineOnly
public inline fun <K,
@kotlin.internal.OnlyInputTypes V> Map<K, V>.containsValue(value: V): Boolean
= this.containsValue(value)

Removes the specified key and its corresponding value from this map.
@return the previous value associated with the key, or `null` if the key was not present in the map.
Allows to overcome type-safety restriction of `remove` that requires to pass a key of type `K`.
^
@kotlin.internal.InlineOnly
public inline fun <@kotlin.internal.OnlyInputTypes K, V> MutableMap<out K,
V>.remove(key: K): V? =
    @Suppress("UNCHECKED_CAST") (this as MutableMap<K,
V>).remove(key)

Returns the key component of the map entry.
This method allows to use destructuring declarations when working with maps, for example:
```
for ((key, value) in map) {
    // do something with the key and the value
}
^
@kotlin.internal.InlineOnly
public inline operator fun <K,
V> Map.Entry<K, V>.component1(): K = key

Returns the value component of the map entry.
This method allows to use destructuring declarations when working with maps, for example:
```
for ((key, value) in map) {
    // do something with the key and the value
}
^
@kotlin.internal.InlineOnly
public inline operator fun <K, V>
Map.Entry<K, V>.component2(): V = value

Converts entry to [Pair] with key being first component and value being second.
^
@kotlin.internal.InlineOnly
public inline fun <K, V> Map.Entry<K, V>.toPair():
Pair<K, V> = Pair(key, value)

Returns the value for the given key, or the result of the [defaultValue] function if there was no entry for the given key.
@sample
samples.collections.Maps.Usage.getOrElse
^
@kotlin.internal.InlineOnly
public inline fun <K, V> Map<K, V>.getOrElse(key: K, defaultValue: () -> V): V
= get(key) ?: defaultValue()

internal inline fun <K, V> Map<K, V>.getOrElseNullable(key: K, defaultValue: ()
-> V): V {
    val value = get(key)
    if (value == null && !containsKey(key)) {
        return defaultValue()
    } else {
        @Suppress("UNCHECKED_CAST")
        return value as V
    }
}

Returns the value for the given [key] or throws an exception if there is no such key in the map.
If the map was created by [withDefault], resorts to its `defaultValue` provider function instead of throwing an exception.
@throws NoSuchElementException when the map doesn't contain a value for the specified key and no implicit default value was provided for that map.
^
@SinceKotlin("1.1")
public fun <K, V> Map<K, V>.getValue(key: K): V
= getOrDefault(key)

Returns the value for the given key. If the key is not found in the map, calls the [defaultValue] function, puts its result into the map under the given key and returns it.
Note that the operation is not guaranteed to be atomic if the map is being modified concurrently.
@sample
samples.collections.Maps.Usage.getOrPut
^
public inline fun <K, V> MutableMap<K, V>.getOrPut(key:
K, defaultValue: () -> V): V {
    val value = get(key)
    return if (value == null) {
        val answer =
defaultValue()
        put(key, answer)
        answer
    } else {
        value
    }
}

Returns an [Iterator] over the entries in the [Map].
@sample
samples.collections.Maps.Usage.forOverEntries
^
@kotlin.internal.InlineOnly
public inline operator fun <K, V> Map<out K, V>.iterator():
Iterator<Map.Entry<K, V>> = entries.iterator()

Returns a [MutableIterator] over the mutable entries in the [MutableMap].
^
@kotlin.jvm.JvmName("mutableIterator")
@kotlin.internal.InlineOnly
public inline operator fun <K, V> MutableMap<K, V>.iterator(): MutableIterator<MutableMap.MutableEntry<K, V>> =
entries.iterator()

Populates the given [destination] map with entries having the keys of this map and the values obtained by applying the [transform] function to each entry in this [Map].
^
public inline fun <K,

```



```

V, R, M : MutableMap<in K, in R>> Map<out K, V>.mapValuesTo(destination: M, transform: (Map.Entry<K, V>
-> R): M {\n  return entries.associateByTo(destination, { it.key }, transform)\n}\n\n/**\n * Populates the given
[destination] map with entries having the keys obtained\n * by applying the [transform] function to each entry in this
[Map] and the values of this map.\n *\n * In case if any two entries are mapped to the equal keys, the value of the
latter one will overwrite\n * the value associated with the former one.\n */\npublic inline fun <K, V, R, M :
MutableMap<in R, in V>> Map<out K, V>.mapKeysTo(destination: M, transform: (Map.Entry<K, V> -> R): M
{\n  return entries.associateByTo(destination, transform, { it.value })\n}\n\n/**\n * Puts all the given [pairs] into
this [MutableMap] with the first component in the pair being the key and the second the value.\n */\npublic fun <K,
V> MutableMap<in K, in V>.putAll(pairs: Array<out Pair<K, V>>): Unit {\n  for ((key, value) in
pairs) {\n    put(key, value)\n  }\n}\n\n/**\n * Puts all the elements of the given collection into this
[MutableMap] with the first component in the pair being the key and the second the value.\n */\npublic fun <K, V>
MutableMap<in K, in V>.putAll(pairs: Iterable<Pair<K, V>>): Unit {\n  for ((key, value) in pairs) {\n
put(key, value)\n  }\n}\n\n/**\n * Puts all the elements of the given sequence into this [MutableMap] with the first
component in the pair being the key and the second the value.\n */\npublic fun <K, V> MutableMap<in K, in
V>.putAll(pairs: Sequence<Pair<K, V>>): Unit {\n  for ((key, value) in pairs) {\n    put(key, value)\n
}\n}\n\n/**\n * Returns a new map with entries having the keys of this map and the values obtained by applying the
[transform]\n * function to each entry in this [Map].\n *\n * The returned map preserves the entry iteration order of
the original map.\n */\n * @sample samples.collections.Maps.Transformations.mapValues\n */\npublic
inline fun <K, V, R> Map<out K, V>.mapValues(transform: (Map.Entry<K, V>) -> R): Map<K, R> {\n  return
mapValuesTo(LinkedHashMap<K, R>(mapCapacity(size)), transform) // .optimizeReadOnlyMap()\n}\n\n/**\n *
Returns a new Map with entries having the keys obtained by applying the [transform] function to each entry in this\n
* [Map] and the values of this map.\n *\n * In case if any two entries are mapped to the equal keys, the value of the
latter one will overwrite\n * the value associated with the former one.\n *\n * The returned map preserves the entry
iteration order of the original map.\n */\n * @sample samples.collections.Maps.Transformations.mapKeys\n
*/\npublic inline fun <K, V, R> Map<out K, V>.mapKeys(transform: (Map.Entry<K, V>) -> R): Map<R, V> {\n
return mapKeysTo(LinkedHashMap<R, V>(mapCapacity(size)), transform) // .optimizeReadOnlyMap()\n}\n\n/**\n *
Returns a map containing all key-value pairs with keys matching the given [predicate].\n *\n * The returned map
preserves
the entry iteration order of the original map.\n */\n * @sample samples.collections.Maps.Filtering.filterKeys\n
*/\npublic inline fun <K, V> Map<out K, V>.filterKeys(predicate: (K) -> Boolean): Map<K, V> {\n  val result =
LinkedHashMap<K, V>()\n  for (entry in this) {\n    if (predicate(entry.key)) {\n      result.put(entry.key,
entry.value)\n    }\n  }\n  return result\n}\n\n/**\n * Returns a map containing all key-value pairs with values
matching the given [predicate].\n *\n * The returned map preserves the entry iteration order of the original map.\n
*/\n * @sample samples.collections.Maps.Filtering.filterValues\n */\npublic inline fun <K, V> Map<out K,
V>.filterValues(predicate: (V) -> Boolean): Map<K, V> {\n  val result = LinkedHashMap<K, V>()\n  for (entry
in this) {\n    if (predicate(entry.value)) {\n      result.put(entry.key, entry.value)\n    }\n  }\n  return
result\n}\n\n/**\n * Appends all entries matching the given [predicate] into
the mutable map given as [destination] parameter.\n *\n * @return the destination map.\n */\n * @sample
samples.collections.Maps.Filtering.filterTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> Map<out
K, V>.filterTo(destination: M, predicate: (Map.Entry<K, V>) -> Boolean): M {\n  for (element in this) {\n    if
(predicate(element)) {\n      destination.put(element.key, element.value)\n    }\n  }\n  return
destination\n}\n\n/**\n * Returns a new map containing all key-value pairs matching the given [predicate].\n *\n *
The returned map preserves the entry iteration order of the original map.\n */\n * @sample
samples.collections.Maps.Filtering.filter\n */\npublic inline fun <K, V> Map<out K, V>.filter(predicate:
(Map.Entry<K, V>) -> Boolean): Map<K, V> {\n  return filterTo(LinkedHashMap<K, V>(),
predicate)\n}\n\n/**\n * Appends all entries not matching the given [predicate] into the given [destination].\n *\n
* @return the destination map.\n */\n * @sample samples.collections.Maps.Filtering.filterNotTo\n

```

```

*^public inline fun <K, V, M : MutableMap<in K, in V>> Map<out K, V>.filterNotTo(destination: M, predicate:
(Map.Entry<K, V> -> Boolean): M {
    for (element in this)
        if (!predicate(element))
            destination.put(element.key, element.value)
    return destination
}

* Returns a new map containing all key-value pairs not matching the given [predicate].
* The returned map preserves the entry iteration order of the original map.
@sample samples.collections.Maps.Filtering.filterNot
*^public inline fun <K, V> Map<out K, V>.filterNot(predicate: (Map.Entry<K, V> -> Boolean): Map<K, V> {
    return filterNotTo(LinkedHashMap<K, V>(), predicate)
}

* Returns a new map containing all key-value pairs from the given collection of pairs.
* The returned map preserves the entry iteration order of the original collection.
* If any of two pairs would have the same key the last one gets added to the map.
*^public fun <K, V> Iterable<Pair<K, V>>.toMap(): Map<K, V> {
    if (this is Collection)
        return when (size) {
            0 -> emptyMap()
            1 -> mapOf(if (this is List) this[0] else iterator().next())
            else -> toMap(LinkedHashMap<K, V>(mapCapacity(size)))
        }
    return toMap(LinkedHashMap<K, V>()).optimizeReadOnlyMap()
}

* Populates and returns the [destination] mutable map with key-value pairs from the given collection of pairs.
*^public fun <K, V, M : MutableMap<in K, in V>> Iterable<Pair<K, V>>.toMap(destination: M): M =
    destination.apply { putAll(this@toMap) }

* Returns a new map containing all key-value pairs from the given array of pairs.
* The returned map preserves the entry iteration order of the original array.
* If any of two pairs would have the same key the last one gets added to the map.
*^public fun <K, V> Array<out Pair<K, V>>.toMap(): Map<K, V> =
    when (size) {
        0 -> emptyMap()
        1 -> mapOf(this[0])
        else -> toMap(LinkedHashMap<K, V>(mapCapacity(size)))
    }

* Populates and returns the [destination] mutable map with key-value pairs from the given array of pairs.
*^public fun <K, V, M : MutableMap<in K, in V>> Array<out Pair<K, V>>.toMap(destination: M): M =
    destination.apply { putAll(this@toMap) }

* Returns a new map containing all key-value pairs from the given sequence of pairs.
* The returned map preserves the entry iteration order of the original sequence.
* If any of two pairs would have the same key the last one gets added to the map.
*^public fun <K, V> Sequence<Pair<K, V>>.toMap(): Map<K, V> = toMap(LinkedHashMap<K, V>()).optimizeReadOnlyMap()

* Populates and returns the [destination] mutable map with key-value pairs from the given sequence of pairs.
*^public fun <K, V, M : MutableMap<in K, in V>> Sequence<Pair<K, V>>.toMap(destination: M): M =
    destination.apply { putAll(this@toMap) }

* Returns a new read-only map containing all key-value pairs from the original map.
* The returned map preserves the entry iteration order of the original map.
*^@SinceKotlin("1.1")
public fun <K, V> Map<out K, V>.toMap(): Map<K, V> = when (size) {
    0 -> emptyMap()
    1 -> toSingletonMap()
    else -> toMutableMap()
}

* Returns a new mutable map containing all key-value pairs from the original map.
* The returned map preserves the entry iteration order of the original map.
*^@SinceKotlin("1.1")
public fun <K, V> Map<out K, V>.toMutableMap(): MutableMap<K, V> = LinkedHashMap(this)

* Populates and returns the [destination] mutable map with key-value pairs from the given map.
*^@SinceKotlin("1.1")
public fun <K, V, M : MutableMap<in K, in V>> Map<out K, V>.toMap(destination: M): M =
    destination.apply { putAll(this@toMap) }

* Creates a new read-only map by replacing or adding an entry to this map from a given key-value [pair].
* The returned map preserves the entry iteration order of the original map.
* The [pair] is iterated in the end if it has a unique key.
*^public operator fun <K, V> Map<out K, V>.plus(pair: Pair<K, V>): Map<K, V> =
    if (this.isEmpty()) mapOf(pair) else LinkedHashMap(this).apply { put(pair.first, pair.second) }

* Creates a new read-only map by replacing or adding entries to this map from a given collection of key-value [pairs].
* The returned map preserves the entry iteration order of the original map.
* Those [pairs] with unique keys are iterated in the end in the order of [pairs] collection.
*^public operator fun <K, V> Map<out K, V>.plus(pairs: Iterable<Pair<K, V>>): Map<K, V> =
    if (this.isEmpty()) pairs.toMap() else LinkedHashMap(this).apply { putAll(pairs) }

* Creates a new read-only map by replacing or adding entries to this map from a given array of key-value [pairs].
* The

```

returned map preserves the entry iteration order of the original map.

- \* Those [pairs] with unique keys are iterated in the end in the order of [pairs] array.

```

public operator fun <K, V> Map<out K, V>.plus(pairs: Array<out Pair<K, V>>): Map<K, V> =
    if (this.isEmpty()) pairs.toMap() else LinkedHashMap(this).apply { putAll(pairs) }

```

- \* Creates a new read-only map by replacing or adding entries to this map from a given sequence of key-value [pairs].
- \* The returned map preserves the entry iteration order of the original map.
- \* Those [pairs] with unique keys are iterated in the end in the order of [pairs] sequence.

```

public operator fun <K, V> Map<out K, V>.plus(pairs: Sequence<Pair<K, V>>): Map<K, V> =
    LinkedHashMap(this).apply { putAll(pairs) }.optimizeReadOnlyMap()

```

- \* Creates a new read-only map by replacing or adding entries to this map from another [map].
- \* The returned map preserves the entry iteration order of the original map.
- \* Those entries of another [map] that are missing in this map are iterated in the end in the order of that [map].

```

public operator fun <K, V> Map<out K, V>.plus(map: Map<out K, V>): Map<K, V> =
    LinkedHashMap(this).apply { putAll(map) }

```

- \* Appends or replaces the given [pair] in this mutable map.

```

@kotlin.internal.InlineOnly public inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(pair: Pair<K, V>) {
    put(pair.first, pair.second)
}

```

- \* Appends or replaces all pairs from the given collection of [pairs] in this mutable map.

```

@kotlin.internal.InlineOnly public inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(pairs: Iterable<Pair<K, V>>) {
    putAll(pairs)
}

```

- \* Appends or replaces all pairs from the given array of [pairs] in this mutable map.

```

@kotlin.internal.InlineOnly public inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(pairs: Array<out Pair<K, V>>) {
    putAll(pairs)
}

```

- \* Appends or replaces all pairs from the given sequence of [pairs] in this mutable map.

```

@kotlin.internal.InlineOnly public inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(pairs: Sequence<Pair<K, V>>) {
    putAll(pairs)
}

```

- \* Appends or replaces all entries from the given [map] in this mutable map.

```

@kotlin.internal.InlineOnly public inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(map: Map<K, V>) {
    putAll(map)
}

```

- \* Returns a map containing all entries of the original map except the entry with the given [key].
- \* The returned map preserves the entry iteration order of the original map.

```

@SinceKotlin("1.1") public operator fun <K, V> Map<out K, V>.minus(key: K): Map<K, V> =
    this.toMutableMap().apply { minusAssign(key) }.optimizeReadOnlyMap()

```

- \* Returns a map containing all entries of the original map except those entries the keys of which are contained in the given [keys] collection.
- \* The returned map preserves the entry iteration order of the original map.

```

@SinceKotlin("1.1") public operator fun <K, V> Map<out K, V>.minus(keys: Iterable<K>): Map<K, V> =
    this.toMutableMap().apply { minusAssign(keys) }.optimizeReadOnlyMap()

```

- \* Returns a map containing all entries of the original map except those entries the keys of which are contained in the given [keys] array.
- \* The returned map preserves the entry iteration order of the original map.

```

@SinceKotlin("1.1") public operator fun <K, V> Map<out K, V>.minus(keys: Array<out K>): Map<K, V> =
    this.toMutableMap().apply { minusAssign(keys) }.optimizeReadOnlyMap()

```

- \* Returns a map containing all entries of the original map except those entries the keys of which are contained in the given [keys] sequence.
- \* The returned map preserves the entry iteration order of the original map.

```

@SinceKotlin("1.1") public operator fun <K, V> Map<out K, V>.minus(keys: Sequence<K>): Map<K, V> =
    this.toMutableMap().apply { minusAssign(keys) }.optimizeReadOnlyMap()

```

- \* Removes the entry with the given [key] from this mutable map.

```

@SinceKotlin("1.1") @kotlin.internal.InlineOnly public inline operator fun <K, V> MutableMap<K, V>.minusAssign(key: K) {
    remove(key)
}

```

- \* Removes all entries the keys of which are contained in the given [keys] collection from this mutable map.

```

@SinceKotlin("1.1") @kotlin.internal.InlineOnly public inline operator fun <K, V> MutableMap<K, V>.minusAssign(keys: Iterable<K>) {
    this.keys.removeAll(keys)
}

```

- \* Removes all entries the keys of which are contained in the given [keys] array from this mutable map.

```

@SinceKotlin("1.1") @kotlin.internal.InlineOnly public inline operator fun <K, V> MutableMap<K, V>.minusAssign(keys: Array<out K>) {
    this.keys.removeAll(keys)
}

```

- \* Removes all entries from the

```

keys of which are contained in the given [keys] sequence from this mutable map.\n
*/\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<K,
V>.minusAssign(keys: Sequence<K>) {\n  this.keys.removeAll(keys)\n}\n\n// do not expose for now
@PublishedApi\ninternal fun <K, V> Map<K, V>.optimizeReadOnlyMap() = when (size) {\n  0 -> emptyMap()\n  1 -> toSingletonMapOrSelf()\n  else -> this\n}\n"/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("SetsKt")\n@file:OptIn(kotlin.experimenta
l.ExperimentalTypeInference::class)\n\npackage kotlin.collections\n\nimport kotlin.contracts.*\n\ninternal object
EmptySet : Set<Nothing>, Serializable {\n  private const val serialVersionUID: Long =
3406603774387020532\n\n  override fun equals(other: Any?): Boolean = other is Set<*> && other.isEmpty()\n
  override fun hashCode(): Int = 0\n  override fun toString(): String = "[]"\n\n  override val size: Int get() = 0\n
  override fun isEmpty(): Boolean = true\n  override fun contains(element: Nothing): Boolean = false\n  override
fun containsAll(elements: Collection<Nothing>): Boolean = elements.isEmpty()\n  override fun iterator():
Iterator<Nothing> = EmptyIterator\n\n  private fun readResolve(): Any = EmptySet\n}\n\n/**\n * Returns an
empty read-only set. The returned set is serializable (JVM).\n * @sample
samples.collections.Collections.Sets.emptyReadOnlySet\n */\npublic fun <T> emptySet(): Set<T> =
EmptySet\n\n/**\n * Returns a new read-only set with the given elements.\n * Elements of the set are iterated in the
order they were specified.\n * The returned set is serializable (JVM).\n * @sample
samples.collections.Collections.Sets.readOnlySet\n */\npublic fun <T> setOf(vararg elements: T): Set<T> = if
(elements.size > 0) elements.toSet() else emptySet()\n\n/**\n * Returns an empty read-only set. The returned set is serializable (JVM).\n * @sample
samples.collections.Collections.Sets.emptyReadOnlySet\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T>
setOf(): Set<T> = emptySet()\n\n/**\n * Returns an empty new [MutableSet].\n * The returned set preserves the
element iteration order.\n * @sample samples.collections.Collections.Sets.emptyMutableSet\n
*/\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline fun <T> mutableSetOf(): MutableSet<T> =
LinkedHashSet()\n\n/**\n * Returns a new [MutableSet] with the given elements.\n * Elements of the set are
iterated in the order they were specified.\n * @sample samples.collections.Collections.Sets.mutableSet\n */\npublic
fun <T> mutableSetOf(vararg elements: T): MutableSet<T> =
elements.toCollection(LinkedHashSet(mapCapacity(elements.size)))\n\n/** Returns an empty new [HashSet].
*/\n\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline fun <T> hashSetOf(): HashSet<T>
= HashSet()\n\n/** Returns a new [HashSet] with the given elements. */\npublic fun <T> hashSetOf(vararg
elements: T): HashSet<T> = elements.toCollection(HashSet(mapCapacity(elements.size)))\n\n/** Returns an
empty new [LinkedHashSet].\n * @sample samples.collections.Collections.Sets.emptyLinkedHashSet\n
*/\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline fun <T> linkedSetOf(): LinkedHashSet<T>
= LinkedHashSet()\n\n/** Returns a new [LinkedHashSet] with the given elements.\n * Elements of the set are
iterated in the order they were specified.\n * @sample samples.collections.Collections.Sets.linkedHashSet\n
*/\npublic fun <T> linkedSetOf(vararg elements: T): LinkedHashSet<T> =
elements.toCollection(LinkedHashSet(mapCapacity(elements.size)))\n\n/** Returns a new read-only set either
with single given element, if it is not null, or empty set if the element is null.\n * The returned set is serializable
(JVM).\n * @sample samples.collections.Collections.Sets.setOfNotNull\n
*/\n@SinceKotlin("1.4")\npublic fun <T : Any> setOfNotNull(element: T?): Set<T> = if (element != null)
setOf(element) else emptySet()\n\n/** Returns a new read-only set only with those given elements, that are not
null.\n * Elements of the set are iterated in the order they were specified.\n * The returned set is serializable
(JVM).\n * @sample samples.collections.Collections.Sets.setOfNotNull\n */\n@SinceKotlin("1.4")\npublic fun <T
: Any> setOfNotNull(vararg elements: T?): Set<T> {\n  return
elements.filterNotNullTo(LinkedHashSet())\n}\n\n/** Builds a new read-only [Set] by populating a
[MutableSet] using the given [builderAction]\n * and returning a read-only set with the same elements.\n * The

```

set passed as a receiver to the [builderAction] is valid only inside that function.\n \* Using it outside of the function produces an unspecified behavior.\n \*\n \* Elements of the set are iterated in the order they were added by the [builderAction].\n \*\n \* The returned set is serializable (JVM).\n \*\n \* @sample samples.collections.Builders.Sets.buildSetSample

```

*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <E> buildSet(@BuilderInference builderAction: MutableSet<E>().-> Unit): Set<E> {\n    contract {\n        callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n    return buildSetInternal(builderAction)\n}\n\n@PublishedApi\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\ninternal expect inline fun <E> buildSetInternal(builderAction: MutableSet<E>().-> Unit): Set<E>\n\n/**\n * Builds a new read-only [Set] by populating a [MutableSet] using the given [builderAction]\n * and returning a read-only set with the same elements.\n *\n * The set passed as a receiver to the [builderAction] is valid only inside that function.\n * Using it outside of the function produces an unspecified behavior.\n *\n * [capacity] is used to hint the expected number of elements added in the [builderAction].\n *\n * Elements of the set are iterated in the order they were added by the [builderAction].\n *\n * The returned set is serializable (JVM).\n *\n * @throws IllegalArgumentException if the given [capacity] is negative.\n *\n * @sample samples.collections.Builders.Sets.buildSetSample

```

```

*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <E> buildSet(capacity: Int, @BuilderInference builderAction: MutableSet<E>().-> Unit): Set<E> {\n    contract {\n        callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n    return buildSetInternal(capacity, builderAction)\n}\n\n@PublishedApi\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\ninternal expect inline fun <E> buildSetInternal(capacity: Int, builderAction: MutableSet<E>().-> Unit): Set<E>\n\n/**\n * Returns this Set if it's not `null` and the empty set otherwise.

```

```

*\n@kotlin.internal.InlineOnly\npublic inline fun <T> Set<T>?.orEmpty(): Set<T> = this

?: emptySet()\n\ninternal fun <T> Set<T>.optimizeReadOnlySet() = when (size) {\n    0 -> emptySet()\n    1 -> setOf(iterator().next())\n    else -> this\n}\n\n"/**\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.

```

```

*\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("StringsKt")\n@file:Suppress("PLATFORM_CLASS_MAPPED_TO_KOTLIN")\n\npackage kotlin.text\n\n/**\n * Parses the string as a signed [Byte] number and returns the result\n * or `null` if the string is not a valid representation of a number.

```

```

*\n@SinceKotlin("1.1")\npublic fun String.toByteArrayOrNull(): Byte? = toByteOrNull(radix = 10)\n\n/**\n * Parses the string as a signed [Byte] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.

```

```

*\n@SinceKotlin("1.1")\npublic fun String.toByteArrayOrNull(radix: Int): Byte? {\n    val int = this.toIntOrNull(radix)?: return null\n    if (int < Byte.MIN_VALUE || int > Byte.MAX_VALUE) return null\n    return int.toByteArray()\n}\n\n/**\n * Parses the string as a [Short] number and returns the result\n * or `null` if the string is not a valid representation of a number.

```

```

*\n@SinceKotlin("1.1")\npublic fun String.toShortOrNull(): Short? = toShortOrNull(radix = 10)\n\n/**\n * Parses the string as a [Short] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.

```

```

*\n@SinceKotlin("1.1")\npublic fun String.toShortOrNull(radix: Int): Short? {\n    val int = this.toIntOrNull(radix)?: return null\n    if (int < Short.MIN_VALUE || int > Short.MAX_VALUE) return null\n    return int.toShort()\n}\n\n/**\n * Parses the string as an [Int] number and returns the result\n * or `null` if the string is not a valid representation of a number.

```

```

*\n@SinceKotlin("1.1")\npublic fun String.toIntOrNull(): Int? = toIntOrNull(radix = 10)\n\n/**\n * Parses the string as an [Int] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.

```

```

*\n@SinceKotlin("1.1")\npublic fun String.toIntOrNull(radix: Int): Int? {\n    checkRadix(radix)\n    val length = this.length\n    if (length == 0) return null\n    val start: Int\n    val isNegative: Boolean\n    val limit:

```

```

Int\n\n val firstChar = this[0]\n if (firstChar < '0') { // Possible leading sign\n     if (length == 1) return null //
non-digit (possible sign) only, no digits after\n\n     start = 1\n\n     if (firstChar == '-') {\n         isNegative =
true\n         limit = Int.MIN_VALUE\n     } else if (firstChar == '+') {\n         isNegative = false\n         limit = -Int.MAX_VALUE\n     } else\n
return null\n } else {\n     start = 0\n     isNegative = false\n     limit = -Int.MAX_VALUE\n }\n\n val
limitForMaxRadix = (-Int.MAX_VALUE) / 36\n\n var limitBeforeMul = limitForMaxRadix\n var result = 0\n
for (i in start until length) {\n     val digit = digitOf(this[i], radix)\n\n     if (digit < 0) return null\n     if (result <
limitBeforeMul) {\n         if (limitBeforeMul == limitForMaxRadix) {\n             limitBeforeMul = limit /
radix\n\n             if (result < limitBeforeMul) {\n                 return null\n             }\n         } else {\n
return null\n         }\n     }\n\n     result *= radix\n\n     if (result < limit + digit) return null\n\n     result -=
digit\n }\n\n return if (isNegative) result else -result\n}\n\n**\n * Parses
the string as a [Long] number and returns the result\n * or `null` if the string is not a valid representation of a
number.\n *^\n@SinceKotlin("1.1")\npublic fun String.toLongOrNull(): Long? = toLongOrNull(radix =
10)\n\n**\n * Parses the string as a [Long] number and returns the result\n * or `null` if the string is not a valid
representation of a number.\n *^\n * @throws IllegalArgumentException when [radix] is not a valid radix for string
to number conversion.\n *^\n@SinceKotlin("1.1")\npublic fun String.toLongOrNull(radix: Int): Long? {\n
checkRadix(radix)\n\n val length = this.length\n if (length == 0) return null\n\n val start: Int\n val isNegative:
Boolean\n val limit: Long\n\n val firstChar = this[0]\n if (firstChar < '0') { // Possible leading sign\n     if
(length == 1) return null // non-digit (possible sign) only, no digits after\n\n     start = 1\n\n     if (firstChar == '-')
{\n         isNegative = true\n         limit = Long.MIN_VALUE\n     } else if (firstChar == '+') {\n         isNegative = false\n
         limit = -Long.MAX_VALUE\n     } else\n
return null\n } else {\n     start = 0\n     isNegative = false\n     limit = -Long.MAX_VALUE\n }\n\n val
limitForMaxRadix = (-Long.MAX_VALUE) / 36\n\n var limitBeforeMul = limitForMaxRadix\n var result =
0L\n for (i in start until length) {\n     val digit = digitOf(this[i], radix)\n\n     if (digit < 0) return null\n     if
(result < limitBeforeMul) {\n         if (limitBeforeMul == limitForMaxRadix) {\n             limitBeforeMul = limit
/ radix\n\n             if (result < limitBeforeMul) {\n                 return null\n             }\n         } else {\n
return null\n         }\n     }\n\n     result *= radix\n\n     if (result < limit + digit) return null\n\n     result -=
digit\n }\n\n return if (isNegative) result else -result\n}\n\n\ninternal
fun numberFormatError(input: String): Nothing = throw NumberFormatException("Invalid number format:
'$input')\n", "/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use
of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\n@package kotlin.time\n\nimport kotlin.contracts.*\nimport kotlin.jvm.JvmInline\nimport kotlin.math.*\n\n**\n * Represents the amount of time one instant of time is away from another instant.\n *^\n * A negative duration is
possible in a situation when the second instant is earlier than the first one.\n *^\n * The type can store duration values
up to \u00b1146 years with nanosecond precision,\n * and up to \u00b1146 million years with millisecond
precision.\n *^\n * If a duration-returning operation provided in `kotlin.time` produces a duration value that doesn't fit
into the above range,\n * the returned `Duration` is infinite.\n *^\n * An infinite duration value
[Duration.INFINITE] can be used to represent infinite timeouts.\n *^\n * To construct a duration use either the
extension function [toDuration],\n * or the extension properties [hours], [minutes], [seconds], and so on,\n *
available on [Int], [Long], and [Double] numeric types.\n *^\n * To get the value of this duration expressed in a
particular [duration units][DurationUnit]\n * use the functions [toInt], [toLong], and [toDouble]\n * or the properties
[inWholeHours], [inWholeMinutes], [inWholeSeconds], [inWholeNanoseconds], and so on.\n
*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalTime::class)\n@JvmInline\npublic value class
Duration internal constructor(private val rawValue: Long) : Comparable<Duration> {\n\n     private val value: Long
get() = rawValue shr 1\n     private inline val unitDiscriminator: Int get() = rawValue.toInt() and 1\n     private fun
isInNanos() = unitDiscriminator == 0\n     private fun isInMillis() = unitDiscriminator == 1\n     private val
storageUnit get()

```

```

= if (isInNanos()) DurationUnit.NANOSECONDS else DurationUnit.MILLISECONDS\n\n init {\n    if
(durationAssertionsEnabled) {\n        if (isInNanos()) {\n            if (value !in -MAX_NANOS..MAX_NANOS)
throw AssertionError("\$value ns is out of nanoseconds range")\n        } else {\n            if (value !in -
MAX_MILLIS..MAX_MILLIS) throw AssertionError("\$value ms is out of milliseconds range")\n        } if
(value in -MAX_NANOS_IN_MILLIS..MAX_NANOS_IN_MILLIS) throw AssertionError("\$value ms is
denormalized")\n    }\n }\n } companion object {\n    /** The duration equal to exactly 0
seconds. */\n    public val ZERO: Duration = Duration(0L)\n    /** The duration whose value is positive
infinity. It is useful for representing timeouts that should never expire. */\n    public val INFINITE: Duration =
durationOfMillis(MAX_MILLIS)\n    internal val NEG_INFINITE: Duration = durationOfMillis(-
MAX_MILLIS)\n\n    /** Converts the given time duration [value] expressed in the specified [sourceUnit] into the specified
[targetUnit]. */\n    @ExperimentalTime\n    public fun convert(value: Double, sourceUnit: DurationUnit,
targetUnit: DurationUnit): Double =\n        convertDurationUnit(value, sourceUnit, targetUnit)\n\n    //
Duration construction extension properties in Duration companion scope\n\n    /** Returns a [Duration] equal to
this [Int] number of nanoseconds. */\n    @kotlin.internal.InlineOnly\n    public inline val Int.nanoseconds get()
= toDuration(DurationUnit.NANOSECONDS)\n\n    /** Returns a [Duration] equal to this [Long] number of
nanoseconds. */\n    @kotlin.internal.InlineOnly\n    public inline val Long.nanoseconds get() =
toDuration(DurationUnit.NANOSECONDS)\n\n    /**\n     * Returns a [Duration] equal to this [Double]
number of nanoseconds.\n     *\n     * Depending on its magnitude, the value is rounded to an integer
number of nanoseconds or milliseconds.\n     *\n     * @throws IllegalArgumentException if this [Double]
value is `NaN`.\n     */\n    @kotlin.internal.InlineOnly\n    public inline val Double.nanoseconds get() =
toDuration(DurationUnit.NANOSECONDS)\n\n    /** Returns a [Duration] equal to this [Int] number of
microseconds. */\n    @kotlin.internal.InlineOnly\n    public inline val Int.microseconds get() =
toDuration(DurationUnit.MICROSECONDS)\n\n    /** Returns a [Duration] equal to this [Long] number of
microseconds. */\n    @kotlin.internal.InlineOnly\n    public inline val Long.microseconds get() =
toDuration(DurationUnit.MICROSECONDS)\n\n    /**\n     * Returns a [Duration] equal to this [Double]
number of microseconds.\n     *\n     * Depending on its magnitude, the value is rounded to an integer number
of nanoseconds or milliseconds.\n     *\n     * @throws IllegalArgumentException if this [Double] value
is `NaN`.\n     */\n    @kotlin.internal.InlineOnly\n    public inline val Double.microseconds get() =
toDuration(DurationUnit.MICROSECONDS)\n\n    /** Returns a [Duration] equal to this [Int] number of
milliseconds. */\n    @kotlin.internal.InlineOnly\n    public inline val Int.milliseconds get() =
toDuration(DurationUnit.MILLISECONDS)\n\n    /** Returns a [Duration] equal to this [Long] number of
milliseconds. */\n    @kotlin.internal.InlineOnly\n    public inline val Long.milliseconds get() =
toDuration(DurationUnit.MILLISECONDS)\n\n    /**\n     * Returns a [Duration] equal to this [Double]
number of milliseconds.\n     *\n     * Depending on its magnitude, the value is rounded to an integer number of
nanoseconds or milliseconds.\n     *\n     * @throws IllegalArgumentException if this [Double] value is
`NaN`.\n     */\n    @kotlin.internal.InlineOnly\n    public inline val Double.milliseconds get() =
toDuration(DurationUnit.MILLISECONDS)\n\n    /** Returns a [Duration] equal to this [Int] number of seconds. */\n    @kotlin.internal.InlineOnly\n    public inline val Int.seconds get() = toDuration(DurationUnit.SECONDS)\n\n    /** Returns a [Duration] equal to
this [Long] number of seconds. */\n    @kotlin.internal.InlineOnly\n    public inline val Long.seconds get() =
toDuration(DurationUnit.SECONDS)\n\n    /**\n     * Returns a [Duration] equal to this [Double] number of
seconds.\n     *\n     * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or
milliseconds.\n     *\n     * @throws IllegalArgumentException if this [Double] value is `NaN`.\n     */\n    @kotlin.internal.InlineOnly\n    public inline val Double.seconds get() =
toDuration(DurationUnit.SECONDS)\n\n    /** Returns a [Duration] equal to this [Int] number of minutes. */\n    @kotlin.internal.InlineOnly\n    public inline

```

```

val Int.minutes get() = toDuration(DurationUnit.MINUTES)\n\n    /** Returns a [Duration] equal to this [Long]
number of minutes. */\n    @kotlin.internal.InlineOnly\n    public inline val Long.minutes get() =
toDuration(DurationUnit.MINUTES)\n\n    /**\n    * Returns a [Duration] equal to this [Double] number of
minutes.\n    *\n    * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or
milliseconds.\n    *\n    * @throws IllegalArgumentException if this [Double] value is `NaN`.\n    */\n    @kotlin.internal.InlineOnly\n    public inline val Double.minutes get() =
toDuration(DurationUnit.MINUTES)\n\n\n    /** Returns a [Duration] equal to this [Int] number of hours. */\n    @kotlin.internal.InlineOnly\n    public inline val Int.hours get() = toDuration(DurationUnit.HOURS)\n\n\n    /**
Returns a [Duration] equal to this [Long] number of hours. */\n    @kotlin.internal.InlineOnly\n    public inline val Long.hours get() = toDuration(DurationUnit.HOURS)\n\n\n    /**\n    * Returns a
[Duration] equal to this [Double] number of hours.\n    *\n    * Depending on its magnitude, the value is
rounded to an integer number of nanoseconds or milliseconds.\n    *\n    * @throws IllegalArgumentException
if this [Double] value is `NaN`.\n    */\n    @kotlin.internal.InlineOnly\n    public inline val Double.hours
get() = toDuration(DurationUnit.HOURS)\n\n\n    /** Returns a [Duration] equal to this [Int] number of days. */\n    @kotlin.internal.InlineOnly\n    public inline val Int.days get() = toDuration(DurationUnit.DAYS)\n\n\n    /**
Returns a [Duration] equal to this [Long] number of days. */\n    @kotlin.internal.InlineOnly\n    public inline
val Long.days get() = toDuration(DurationUnit.DAYS)\n\n\n    /**\n    * Returns a [Duration] equal to this
[Double] number of days.\n    *\n    * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or milliseconds.\n    *\n    * @throws IllegalArgumentException if this [Double] value is `NaN`.\n    */\n    @kotlin.internal.InlineOnly\n    public inline val Double.days get() = toDuration(DurationUnit.DAYS)\n\n\n    // deprecated static factory functions\n    /** Returns a [Duration] representing the specified [value] number of
nanoseconds. */\n    @SinceKotlin("1.5")\n    @ExperimentalTime\n    @Deprecated("Use
'Int.nanoseconds' extension property from Duration.Companion instead.", ReplaceWith("value.nanoseconds",
"\"kotlin.time.Duration.Companion.nanoseconds\""))\n    @DeprecatedSinceKotlin(warningSince = "1.6")\n    public fun nanoseconds(value: Int): Duration = value.toDuration(DurationUnit.NANOSECONDS)\n\n\n    /**
Returns a [Duration] representing the specified [value] number of nanoseconds. */\n    @SinceKotlin("1.5")\n    @ExperimentalTime\n    @Deprecated("Use 'Long.nanoseconds' extension property from Duration.Companion
instead.", ReplaceWith("value.nanoseconds", "kotlin.time.Duration.Companion.nanoseconds"))\n    @DeprecatedSinceKotlin(warningSince = "1.6")\n    public fun nanoseconds(value: Long): Duration =
value.toDuration(DurationUnit.NANOSECONDS)\n\n\n    /**\n    * Returns a [Duration] representing the
specified [value] number of nanoseconds.\n    *\n    * @throws IllegalArgumentException if the provided
`Double` [value] is `NaN`.\n    */\n    @SinceKotlin("1.5")\n    @ExperimentalTime\n    @Deprecated("Use 'Double.nanoseconds' extension property from Duration.Companion instead.",
ReplaceWith("value.nanoseconds", "kotlin.time.Duration.Companion.nanoseconds"))\n    @DeprecatedSinceKotlin(warningSince = "1.6")\n    public fun nanoseconds(value: Double): Duration =
value.toDuration(DurationUnit.NANOSECONDS)\n\n\n\n    Returns a [Duration] representing the specified [value] number of microseconds. */\n    @SinceKotlin("1.5")\n    @ExperimentalTime\n    @Deprecated("Use 'Int.microseconds' extension property from Duration.Companion
instead.", ReplaceWith("value.microseconds", "kotlin.time.Duration.Companion.microseconds"))\n    @DeprecatedSinceKotlin(warningSince = "1.6")\n    public fun microseconds(value: Int): Duration =
value.toDuration(DurationUnit.MICROSECONDS)\n\n\n    /** Returns a [Duration] representing the specified
[value] number of microseconds. */\n    @SinceKotlin("1.5")\n    @ExperimentalTime\n    @Deprecated("Use 'Long.microseconds' extension property from Duration.Companion instead.",
ReplaceWith("value.microseconds", "kotlin.time.Duration.Companion.microseconds"))\n    @DeprecatedSinceKotlin(warningSince = "1.6")\n    public fun microseconds(value: Long): Duration =
value.toDuration(DurationUnit.MICROSECONDS)\n\n\n    /**\n

```



```

    * Returns a [Duration] representing the specified [value] number of microseconds.\n
    * @throws\n
    IllegalArgumentException if the provided `Double` [value] is `NaN`.\n
    @SinceKotlin("1.5")\n
    @ExperimentalTime\n
    @Deprecated("Use 'Double.microseconds' extension property from\n
    Duration.Companion instead.", ReplaceWith("value.microseconds",\n
    "kotlin.time.Duration.Companion.microseconds"))\n
    @DeprecatedSinceKotlin(warningSince = "1.6")\n
    public fun microseconds(value: Double): Duration = value.toDuration(DurationUnit.MICROSECONDS)\n\n
    /** Returns a [Duration] representing the specified [value] number of milliseconds. */\n
    @SinceKotlin("1.5")\n
    @ExperimentalTime\n
    @Deprecated("Use 'Int.milliseconds' extension property\n
    from Duration.Companion instead.", ReplaceWith("value.milliseconds",\n
    "kotlin.time.Duration.Companion.milliseconds"))\n
    @DeprecatedSinceKotlin(warningSince\n
    = "1.6")\n
    public fun milliseconds(value: Int): Duration =\n
    value.toDuration(DurationUnit.MILLISECONDS)\n\n
    /** Returns a [Duration] representing the specified\n
    [value] number of milliseconds. */\n
    @SinceKotlin("1.5")\n
    @ExperimentalTime\n
    @Deprecated("Use 'Long.milliseconds' extension property from Duration.Companion instead.",\n
    ReplaceWith("value.milliseconds", "kotlin.time.Duration.Companion.milliseconds"))\n
    @DeprecatedSinceKotlin(warningSince = "1.6")\n
    public fun milliseconds(value: Long): Duration =\n
    value.toDuration(DurationUnit.MILLISECONDS)\n\n
    /**\n
    * Returns a [Duration] representing the\n
    specified [value] number of milliseconds.\n
    * @throws IllegalArgumentException if the provided\n
    `Double` [value] is `NaN`.\n
    * @SinceKotlin("1.5")\n
    @ExperimentalTime\n
    @Deprecated("Use 'Double.milliseconds' extension property from Duration.Companion instead.",\n
    ReplaceWith("value.milliseconds", "kotlin.time.Duration.Companion.milliseconds"))\n
    @DeprecatedSinceKotlin(warningSince = "1.6")\n
    public fun milliseconds(value: Double): Duration =\n
    value.toDuration(DurationUnit.MILLISECONDS)\n\n
    /** Returns a [Duration] representing the specified\n
    [value] number of seconds. */\n
    @SinceKotlin("1.5")\n
    @ExperimentalTime\n
    @Deprecated("Use\n
    'Int.seconds' extension property from Duration.Companion instead.", ReplaceWith("value.seconds",\n
    "kotlin.time.Duration.Companion.seconds"))\n
    @DeprecatedSinceKotlin(warningSince = "1.6")\n
    public\n
    fun seconds(value: Int): Duration = value.toDuration(DurationUnit.SECONDS)\n\n
    /** Returns a [Duration]\n
    representing the specified [value] number of seconds. */\n
    @SinceKotlin("1.5")\n
    @ExperimentalTime\n
    @Deprecated("Use 'Long.seconds' extension property from Duration.Companion instead.",\n
    ReplaceWith("value.seconds", "kotlin.time.Duration.Companion.seconds"))\n
    @DeprecatedSinceKotlin(warningSince = "1.6")\n
    public fun seconds(value: Long): Duration =\n
    value.toDuration(DurationUnit.SECONDS)\n\n
    /**\n
    * Returns a [Duration] representing the specified\n
    [value] number of seconds.\n
    * @throws IllegalArgumentException if the provided `Double` [value] is\n
    `NaN`.\n
    * @SinceKotlin("1.5")\n
    @ExperimentalTime\n
    @Deprecated("Use\n
    'Double.seconds' extension property from Duration.Companion instead.", ReplaceWith("value.seconds",\n
    "kotlin.time.Duration.Companion.seconds"))\n
    @DeprecatedSinceKotlin(warningSince = "1.6")\n
    public\n
    fun seconds(value: Double): Duration = value.toDuration(DurationUnit.SECONDS)\n\n
    /** Returns a\n
    [Duration] representing the specified [value] number of minutes. */\n
    @SinceKotlin("1.5")\n
    @ExperimentalTime\n
    @Deprecated("Use 'Int.minutes' extension property\n
    from Duration.Companion instead.", ReplaceWith("value.minutes",\n
    "kotlin.time.Duration.Companion.minutes"))\n
    @DeprecatedSinceKotlin(warningSince = "1.6")\n
    public\n
    fun minutes(value: Int): Duration = value.toDuration(DurationUnit.MINUTES)\n\n
    /** Returns a [Duration]\n
    representing the specified [value] number of minutes. */\n
    @SinceKotlin("1.5")\n
    @ExperimentalTime\n
    @Deprecated("Use 'Long.minutes' extension property from Duration.Companion instead.",\n
    ReplaceWith("value.minutes", "kotlin.time.Duration.Companion.minutes"))\n
    @DeprecatedSinceKotlin(warningSince = "1.6")\n
    public fun minutes(value: Long): Duration =\n
    value.toDuration(DurationUnit.MINUTES)\n\n
    /**\n
    * Returns a [Duration] representing the specified\n
    [value] number of minutes.\n
    * @throws IllegalArgumentException if the provided `Double` [value] is
  
```

```

`NaN`.n    */n    @SinceKotlin("1.5")n    @ExperimentalTime\n
    @Deprecated("Use 'Double.minutes' extension property from Duration.Companion instead.",
ReplaceWith("value.minutes", "kotlin.time.Duration.Companion.minutes"))n
@DeprecatedSinceKotlin(warningSince = "1.6")n    public fun minutes(value: Double): Duration =
value.toDuration(DurationUnit.MINUTES)n\n\n    /** Returns a [Duration] representing the specified [value]
number of hours. */n    @SinceKotlin("1.5")n    @ExperimentalTime\n    @Deprecated("Use 'Int.hours'
extension property from Duration.Companion instead.", ReplaceWith("value.hours",
"kotlin.time.Duration.Companion.hours"))n    @DeprecatedSinceKotlin(warningSince = "1.6")n    public
fun hours(value: Int): Duration = value.toDuration(DurationUnit.HOURS)n\n\n    /** Returns a [Duration]
representing the specified [value] number of hours. */n    @SinceKotlin("1.5")n    @ExperimentalTime\n
@Deprecated("Use 'Long.hours' extension property from
Duration.Companion instead.", ReplaceWith("value.hours", "kotlin.time.Duration.Companion.hours"))n
@DeprecatedSinceKotlin(warningSince = "1.6")n    public fun hours(value: Long): Duration =
value.toDuration(DurationUnit.HOURS)n\n\n    /**n    * Returns a [Duration] representing the specified
[value] number of hours.n    *n    * @throws IllegalArgumentException if the provided `Double` [value] is
`NaN`.n    */n    @SinceKotlin("1.5")n    @ExperimentalTime\n    @Deprecated("Use 'Double.hours'
extension property from Duration.Companion instead.", ReplaceWith("value.hours",
"kotlin.time.Duration.Companion.hours"))n    @DeprecatedSinceKotlin(warningSince = "1.6")n    public
fun hours(value: Double): Duration = value.toDuration(DurationUnit.HOURS)n\n\n    /** Returns a [Duration]
representing the specified [value] number of days. */n    @SinceKotlin("1.5")n    @ExperimentalTime\n
@Deprecated("Use
'Int.days' extension property from Duration.Companion instead.", ReplaceWith("value.days",
"kotlin.time.Duration.Companion.days"))n    @DeprecatedSinceKotlin(warningSince = "1.6")n    public
fun days(value: Int): Duration = value.toDuration(DurationUnit.DAYS)n\n\n    /** Returns a [Duration]
representing the specified [value] number of days. */n    @SinceKotlin("1.5")n    @ExperimentalTime\n
@Deprecated("Use 'Long.days' extension property from Duration.Companion instead.",
ReplaceWith("value.days", "kotlin.time.Duration.Companion.days"))n
@DeprecatedSinceKotlin(warningSince = "1.6")n    public fun days(value: Long): Duration =
value.toDuration(DurationUnit.DAYS)n\n\n    /**n    * Returns a [Duration] representing the specified [value]
number of days.n    *n    * @throws IllegalArgumentException if the provided `Double` [value] is `NaN`.n
*/n    @SinceKotlin("1.5")n    @ExperimentalTime\n
    @Deprecated("Use 'Double.days' extension property from Duration.Companion instead.",
ReplaceWith("value.days", "kotlin.time.Duration.Companion.days"))n
@DeprecatedSinceKotlin(warningSince = "1.6")n    public fun days(value: Double): Duration =
value.toDuration(DurationUnit.DAYS)n\n\n    /**n    * Parses a string that represents a duration and returns the
parsed [Duration] value.n    *n    * The following formats are accepted:n    *n    * - ISO-8601
Duration format, e.g. `P1DT2H3M4.058S`, see [toIsoString] and [parseIsoString].n    * - The format of string
returned by the default [Duration.toString] and `toString` in a specific unit,n    * e.g. `10s`, `1h 30m` or
`-(1h 30m)`.n    *n    * @throws IllegalArgumentException if the string doesn't represent a duration in any of the
supported formats.n    * @sample samples.time.Durations.parse\n    */n    @ExperimentalTime\n    public fun parse(value:
String): Duration = try {\n        parseDuration(value, strictIso = false)\n    } catch (e:
IllegalArgumentException) {\n        throw IllegalArgumentException("Invalid duration string format: '$value'.",
e)\n    }\n\n    /**n    * Parses a string that represents a duration in ISO-8601 format and returns the parsed
[Duration] value.n    *n    * @throws IllegalArgumentException if the string doesn't represent a duration in
ISO-8601 format.n    * @sample samples.time.Durations.parseIsoString\n    */n    @ExperimentalTime\n    public fun
parseIsoString(value: String): Duration = try {\n        parseDuration(value, strictIso = true)\n    } catch (e:
IllegalArgumentException) {\n        throw IllegalArgumentException("Invalid ISO duration string format:
'$value'.", e)\n    }\n\n    /**n    * Parses a string that represents a duration and returns the parsed [Duration]

```



```

{\n      if (result / scale == value) {\n          durationOfMillis(result.coerceIn(-
MAX_MILLIS..MAX_MILLIS))\n      } else {\n          if (value.sign * scale.sign > 0) INFINITE else
NEG_INFINITE\n      }\n  }\n  }\n  }\n  /**\n   * Returns a duration whose value is this duration value
multiplied by the given [scale] number.\n   * \n   * The operation may involve rounding when the result cannot be
represented exactly with a [Double] number.\n   * \n   * @throws IllegalArgumentException if the operation
results in an undefined value for the given arguments,\n   * e.g. when
multiplying an infinite duration by zero.\n   */\n  public operator fun times(scale: Double): Duration {\n      val
intScale = scale.roundToInt()\n      if (intScale.toDouble() == scale) {\n          return times(intScale)\n      }\n      val
unit = storageUnit\n      val result = toDouble(unit) * scale\n      return result.toDuration(unit)\n  }\n  }\n  /**\n   * Returns a duration whose value is this duration value divided by the given [scale] number.\n   * \n   *
@throws IllegalArgumentException if the operation results in an undefined value for the given arguments,\n   *
e.g. when dividing zero duration by zero.\n   */\n  public operator fun div(scale: Int): Duration {\n      if (scale ==
0) {\n          return when {\n              isPositive() -> INFINITE\n              isNegative() -> NEG_INFINITE\n              else -> throw IllegalArgumentException("Dividing zero duration by zero yields an undefined result.")\n          }\n      }\n      if (isInNanos()) {\n          return durationOfNanos(value / scale)\n      } else {\n          if (isInfinite())\n              return this * scale.sign\n          val result = value / scale\n          if (result in -
MAX_NANOS_IN_MILLIS..MAX_NANOS_IN_MILLIS) {\n              val rem = millisToNanos(value - (result *
scale)) / scale\n              return durationOfNanos(millisToNanos(result) + rem)\n          }\n          return
durationOfMillis(result)\n      }\n  }\n  }\n  /**\n   * Returns a duration whose value is this duration value divided
by the given [scale] number.\n   * \n   * @throws IllegalArgumentException if the operation results in an
undefined value for the given arguments,\n   * e.g. when dividing an infinite duration by infinity or zero duration
by zero.\n   */\n  public operator fun div(scale: Double): Duration {\n      val intScale = scale.roundToInt()\n      if
(intScale.toDouble() == scale && intScale != 0) {\n          return div(intScale)\n      }\n      val unit = storageUnit\n      val result = toDouble(unit) / scale\n      return result.toDuration(unit)\n  }\n  }\n  /** Returns a number that is the ratio of this and [other] duration values.
*/\n  public operator fun div(other: Duration): Double {\n      val coarserUnit = maxOf(this.storageUnit,
other.storageUnit)\n      return this.toDouble(coarserUnit) / other.toDouble(coarserUnit)\n  }\n  }\n  /** Returns
true, if the duration value is less than zero. */\n  public fun isNegative(): Boolean = rawValue < 0\n  /** Returns
true, if the duration value is greater than zero. */\n  public fun isPositive(): Boolean = rawValue > 0\n  /**
Returns true, if the duration value is infinite. */\n  public fun isInfinite(): Boolean = rawValue ==
INFINITE.rawValue || rawValue == NEG_INFINITE.rawValue\n  /** Returns true, if the duration value is finite.
*/\n  public fun isFinite(): Boolean = !isInfinite()\n  }\n  }\n  Returns the absolute value of this value. The returned value is always non-negative. */\n  public val absoluteValue:
Duration get() = if (isNegative()) -this else this\n  override fun compareTo(other: Duration): Int {\n      val
compareBits = this.rawValue xor other.rawValue\n      if (compareBits < 0 || compareBits.toInt() and 1 == 0) //
different signs or same sign/same range\n          return this.rawValue.compareTo(other.rawValue)\n      // same
sign/different ranges\n      val r = this.unitDiscriminator - other.unitDiscriminator // compare ranges\n      return if
(isNegative()) -r else r\n  }\n  }\n  /**\n   * Splits this duration into days, hours,
minutes, seconds, and nanoseconds and executes the given [action] with these components.\n   * The result of
[action] is returned as the result of this function.\n   * \n   * - `nanoseconds` represents the whole number of
nanoseconds in this duration, and its absolute value
is less than 1_000_000_000;\n   * - `seconds` represents the whole number of seconds in this duration, and its
absolute value is less than 60;\n   * - `minutes` represents the whole number of minutes in this duration, and its
absolute value is less than 60;\n   * - `hours` represents the whole number of hours in this duration, and its absolute
value is less than 24;\n   * - `days` represents the whole number of days in this duration.\n   * \n   * Infinite
durations are represented as either [Long.MAX_VALUE] days, or [Long.MIN_VALUE] days (depending on the
sign of infinity),\n   * and zeroes in the lower components.\n   */\n  public inline fun <T> toComponents(action:

```

```

(days: Long, hours: Int, minutes: Int, seconds: Int, nanoseconds: Int) -> T): T {
    contract { callsInPlace(action, InvocationKind.EXACTLY_ONCE) }
    return action(inWholeDays, hoursComponent, minutesComponent,
secondsComponent, nanosecondsComponent)
}

/**
 * Splits this duration into hours, minutes, seconds, and nanoseconds and executes the given [action] with these components.
 * The result of [action] is returned as the result of this function.
 * - `nanoseconds` represents the whole number of nanoseconds in this duration, and its absolute value is less than 1_000_000_000;
 * - `seconds` represents the whole number of seconds in this duration, and its absolute value is less than 60;
 * - `minutes` represents the whole number of minutes in this duration, and its absolute value is less than 60;
 * - `hours` represents the whole number of hours in this duration.
 * Infinite durations are represented as either [Long.MAX_VALUE] hours, or [Long.MIN_VALUE] hours (depending on the sign of infinity),
 * and zeroes in the lower components.
 */
public inline fun <T> toComponents(action: (hours: Long, minutes: Int, seconds: Int, nanoseconds: Int) -> T): T {
    contract { callsInPlace(action, InvocationKind.EXACTLY_ONCE) }
    return action(inWholeHours, minutesComponent, secondsComponent, nanosecondsComponent)
}

/**
 * Splits this duration into minutes, seconds, and nanoseconds and executes the given [action] with these components.
 * The result of [action] is returned as the result of this function.
 * - `nanoseconds` represents the whole number of nanoseconds in this duration, and its absolute value is less than 1_000_000_000;
 * - `seconds` represents the whole number of seconds in this duration, and its absolute value is less than 60;
 * - `minutes` represents the whole number of minutes in this duration.
 * Infinite durations are represented as either [Long.MAX_VALUE] minutes, or [Long.MIN_VALUE] minutes (depending on the sign of infinity),
 * and zeroes in the lower components.
 */
public inline fun <T> toComponents(action: (minutes: Long, seconds: Int, nanoseconds: Int) -> T): T {
    contract { callsInPlace(action, InvocationKind.EXACTLY_ONCE) }
    return action(inWholeMinutes, secondsComponent, nanosecondsComponent)
}

/**
 * Splits this duration into seconds, and nanoseconds and executes the given [action] with these components.
 * The result of [action] is returned as the result of this function.
 * - `nanoseconds` represents the whole number of nanoseconds in this duration, and its absolute value is less than 1_000_000_000;
 * - `seconds` represents the whole number of seconds in this duration, and its absolute value is less than 60;
 * Infinite durations are represented as either [Long.MAX_VALUE] seconds, or [Long.MIN_VALUE] seconds (depending on the sign of infinity),
 * and zero nanoseconds.
 */
public inline fun <T> toComponents(action: (seconds: Long, nanoseconds: Int) -> T): T {
    contract { callsInPlace(action, InvocationKind.EXACTLY_ONCE) }
    return action(inWholeSeconds, nanosecondsComponent)
}

}

@PublishedApi
internal val hoursComponent: Int
    get() = if (isInfinite()) 0 else (inWholeHours % 24).toInt()

@PublishedApi
internal val minutesComponent: Int
    get() = if (isInfinite()) 0 else (inWholeMinutes % 60).toInt()

@PublishedApi
internal val secondsComponent: Int
    get() = if (isInfinite()) 0 else (inWholeSeconds % 60).toInt()

@PublishedApi
internal val nanosecondsComponent: Int
    get() = when {
        isInfinite() -> 0
        isInMillis() -> millisToNanos(value % 1_000).toInt()
        else -> (value % 1_000_000_000).toInt()
    }

// conversion to units
/**
 * Returns the value of this duration expressed as a [Double] number of the specified [unit].
 * The operation may involve rounding when the result cannot be represented exactly with a [Double] number.
 * An infinite duration value is converted either to [Double.POSITIVE_INFINITY] or [Double.NEGATIVE_INFINITY] depending on its sign.
 */
public fun toDouble(unit: DurationUnit): Double {
    return when (rawValue) {
        INFINITE.rawValue -> Double.POSITIVE_INFINITY
        NEG_INFINITE.rawValue -> Double.NEGATIVE_INFINITY
        else -> {
            // TODO: whether it's ok to convert to Double before scaling
            convertDurationUnit(value.toDouble(), storageUnit, unit)
        }
    }
}

/**
 * Returns the value of this duration expressed as a [Long] number of the specified [unit].
 * If the result doesn't fit in the range of [Long] type, it is coerced into that range:
 * - [Long.MIN_VALUE] is returned if it's less than `Long.MIN_VALUE`,
 * - [Long.MAX_VALUE] is returned if it's greater than `Long.MAX_VALUE`.
 * An infinite duration value is converted either to

```

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[Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n    */\n    public fun
    toLong(unit: DurationUnit): Long {\n        return when (rawValue) {\n            INFINITE.rawValue ->
Long.MAX_VALUE\n            NEG_INFINITE.rawValue -> Long.MIN_VALUE\n            else ->
convertDurationUnit(value, storageUnit, unit)\n        }\n    }\n    /**\n     * Returns the value of this duration
expressed as an [Int] number of the specified [unit].\n     *\n     * If the result doesn't fit in the range of [Int] type, it
is coerced into that range:\n     * - [Int.MIN_VALUE] is returned if it's less than `Int.MIN_VALUE`,\n     * -
[Int.MAX_VALUE] is returned if it's greater than `Int.MAX_VALUE`.\n     *\n     * An infinite duration value is
converted either to [Int.MAX_VALUE] or [Int.MIN_VALUE] depending on its sign.\n    */\n    public fun
    toInt(unit: DurationUnit): Int =\n        toLong(unit).coerceIn(Int.MIN_VALUE.toLong(),
Int.MAX_VALUE.toLong()).toInt()\n    /** The value of this duration expressed as a [Double] number of days.
*/\n    @ExperimentalTime\n    @Deprecated("\nUse
    inWholeDays property instead or convert toDouble(DAYS) if a double value is required.\n",
    ReplaceWith("\ntoDouble(DurationUnit.DAYS)\n"))\n    public val inDays: Double get() =
    toDouble(DurationUnit.DAYS)\n    /** The value of this duration expressed as a [Double] number of hours. */\n
    @ExperimentalTime\n    @Deprecated("\nUse inWholeHours property instead or convert toDouble(HOURS) if a
double value is required.\n", ReplaceWith("\ntoDouble(DurationUnit.HOURS)\n"))\n    public val inHours: Double
get() = toDouble(DurationUnit.HOURS)\n    /** The value of this duration expressed as a [Double] number of
minutes. */\n    @ExperimentalTime\n    @Deprecated("\nUse inWholeMinutes property instead or convert
toDouble(MINUTES) if a double value is required.\n", ReplaceWith("\ntoDouble(DurationUnit.MINUTES)\n"))\n
    public val inMinutes: Double get() = toDouble(DurationUnit.MINUTES)\n    /** The value of this duration
expressed as a [Double] number of seconds. */\n    @ExperimentalTime\n
    @Deprecated("\nUse inWholeSeconds property instead or convert toDouble(SECONDS) if a double value is
required.\n", ReplaceWith("\ntoDouble(DurationUnit.SECONDS)\n"))\n    public val inSeconds: Double get() =
    toDouble(DurationUnit.SECONDS)\n    /** The value of this duration expressed as a [Double] number of
milliseconds. */\n    @ExperimentalTime\n    @Deprecated("\nUse inWholeMilliseconds property instead or
convert toDouble(MILLISECONDS) if a double value is required.\n",
    ReplaceWith("\ntoDouble(DurationUnit.MILLISECONDS)\n"))\n    public val inMilliseconds: Double get() =
    toDouble(DurationUnit.MILLISECONDS)\n    /** The value of this duration expressed as a [Double] number of
microseconds. */\n    @ExperimentalTime\n    @Deprecated("\nUse inWholeMicroseconds property instead or
convert toDouble(MICROSECONDS) if a double value is required.\n",
    ReplaceWith("\ntoDouble(DurationUnit.MICROSECONDS)\n"))\n    public val inMicroseconds: Double get() =
    toDouble(DurationUnit.MICROSECONDS)\n    /** The value of this duration expressed as a [Double] number of
nanoseconds. */\n    @ExperimentalTime\n
    @Deprecated("\nUse inWholeNanoseconds property instead or convert toDouble(NANOSECONDS) if a double
value is required.\n", ReplaceWith("\ntoDouble(DurationUnit.NANOSECONDS)\n"))\n    public val inNanoseconds:
Double get() = toDouble(DurationUnit.NANOSECONDS)\n    /**\n     * The value of this duration expressed as
a [Long] number of days.\n     *\n     * An infinite duration value is converted either to [Long.MAX_VALUE] or
[Long.MIN_VALUE] depending on its sign.\n    */\n    public val inWholeDays: Long\n        get() =
    toLong(DurationUnit.DAYS)\n    /**\n     * The value of this duration expressed as a [Long] number of hours.\n
*/\n     * An infinite duration value is converted either to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending
on its sign.\n    */\n    public val inWholeHours: Long\n        get() = toLong(DurationUnit.HOURS)\n    /**\n
     * The value of this
duration expressed as a [Long] number of minutes.\n     *\n     * An infinite duration value is converted either
to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n    */\n    public val inWholeMinutes:
Long\n        get() = toLong(DurationUnit.MINUTES)\n    /**\n     * The value of this duration expressed as
a [Long] number of seconds.\n     *\n     * An infinite duration value is converted either to [Long.MAX_VALUE]
or [Long.MIN_VALUE] depending on its sign.\n    */\n    public val inWholeSeconds: Long\n        get() =
    toLong(DurationUnit.SECONDS)\n    /**\n     * The value of this duration expressed as a [Long] number of

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milliseconds.\n * An infinite duration value is converted either to [Long.MAX_VALUE] or
[Long.MIN_VALUE] depending on its sign.\n * public val inWholeMilliseconds: Long\n get() {\n
return if (isInMillis() && isFinite()) value else toLong(DurationUnit.MILLISECONDS)\n }\n /**\n *
The value of this
duration expressed as a [Long] number of microseconds.\n * If the result doesn't fit in the range of [Long]
type, it is coerced into that range:\n * - [Long.MIN_VALUE] is returned if it's less than `Long.MIN_VALUE`,\n
* - [Long.MAX_VALUE] is returned if it's greater than `Long.MAX_VALUE`.\n * An infinite duration
value is converted either to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n * public
val inWholeMicroseconds: Long\n get() = toLong(DurationUnit.MICROSECONDS)\n /**\n * The value
of this duration expressed as a [Long] number of nanoseconds.\n * If the result doesn't fit in the range of
[Long] type, it is coerced into that range:\n * - [Long.MIN_VALUE] is returned if it's less than
`Long.MIN_VALUE`,\n * - [Long.MAX_VALUE] is returned if it's greater than `Long.MAX_VALUE`.\n * An
infinite duration value is converted either to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending
on its sign.\n * public val inWholeNanoseconds: Long\n get() {\n val value = value\n
return when {\n isInNanos() -> value\n value > Long.MAX_VALUE / NANOS_IN_MILLIS ->
Long.MAX_VALUE\n value < Long.MIN_VALUE / NANOS_IN_MILLIS -> Long.MIN_VALUE\n
else -> millisToNanos(value)\n }\n }\n // shortcuts\n /**\n * Returns the value of this
duration expressed as a [Long] number of nanoseconds.\n * If the value doesn't fit in the range of [Long]
type, it is coerced into that range, see the conversion [Double.toLong] for details.\n * The range of
durations that can be expressed as a `Long` number of nanoseconds is approximately \u00b1292 years.\n *
@ExperimentalTime\n @Deprecated("Use inWholeNanoseconds property instead.")\n
ReplaceWith("this.inWholeNanoseconds")\n public fun toLongNanoseconds(): Long =
inWholeNanoseconds\n\n
/**\n * Returns the value of this duration expressed as a [Long] number of milliseconds.\n * The value
is coerced to the range of [Long] type, if it doesn't fit in that range, see the conversion [Double.toLong] for details.\n
* The range of durations that can be expressed as a `Long` number of milliseconds is approximately
\u00b11292 million years.\n * @ExperimentalTime\n @Deprecated("Use inWholeMilliseconds property
instead.", ReplaceWith("this.inWholeMilliseconds"))\n public fun toLongMilliseconds(): Long =
inWholeMilliseconds\n\n
/**\n * Returns a string representation of this duration value\n * expressed as a
combination of numeric components, each in its own unit.\n * Each component is a number followed by the
unit abbreviated name: `d`, `h`, `m`, `s`:\n * `5h`, `1d 12h`, `1h 0m 30.340s`.\n * The last component, usually
seconds, can be a number with a fractional part.\n * If the duration
is less than a second, it is represented as a single number\n * with one of sub-second units: `ms` (milliseconds),
`us` (microseconds), or `ns` (nanoseconds):\n * `140.884ms`, `500us`, `24ns`.\n * A negative duration is
prefixed with `-` sign and, if it consists of multiple components, surrounded with parentheses:\n * `-12m` and
`-(1h 30m)`.\n * Special cases:\n * - an infinite duration is formatted as `"Infinity"` or `"-Infinity"`
without a unit.\n * It's recommended to use [toIsoString] that uses more strict ISO-8601 format instead of
this `toString`\n * when you want to convert a duration to a string in cases of serialization, interchange, etc.\n
* @sample samples.time.Durations.toStringDefault\n * override fun toString(): String = when
(rawValue) {\n 0L -> "0s"\n INFINITE.rawValue -> "Infinity"\n NEG_INFINITE.rawValue -> "-
Infinity"\n else -> {\n val isNegative
= isNegative()\n buildString {\n if (isNegative) append('-')\n absoluteValue.toComponents
{ days, hours, minutes, seconds, nanoseconds ->\n val hasDays = days != 0L\n val hasHours
= hours != 0\n val hasMinutes = minutes != 0\n val hasSeconds = seconds != 0 ||
nanoseconds != 0\n var components = 0\n if (hasDays) {\n
append(days).append('d')\n components++\n }\n if (hasHours || (hasDays &&
(hasMinutes || hasSeconds))) {\n if (components++ > 0) append(' ')\n
append(hours).append('h')\n }\n if (hasMinutes || (hasSeconds && (hasHours || hasDays)))

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        if (components++ > 0) append(' ')
        append(minutes).append('m')
    }
    if (hasSeconds) {
        if (components++ > 0) append(' ')
        when
        seconds != 0 || hasDays || hasHours || hasMinutes ->
        appendFractional(seconds, nanoseconds, 9, "s", isoZeroes = false)
        nanoseconds >= 1_000_000 ->
        appendFractional(nanoseconds / 1_000_000, nanoseconds % 1_000_000, 6, "ms",
        isoZeroes = false)
        nanoseconds >= 1_000 ->
        appendFractional(nanoseconds / 1_000, nanoseconds % 1_000, 3, "us", isoZeroes = false)
        else ->
        append(nanoseconds).append("ns")
    }
    if (isNegative && components > 1) insert(1, '(').append(')')
}
private fun
StringBuilder.appendFractional(whole:
Int, fractional: Int, fractionalSize: Int, unit: String, isoZeroes: Boolean) {
    append(whole)
    if (fractional != 0) {
        append('.')
        val fracString = fractional.toString().padStart(fractionalSize, '0')
        val nonZeroDigits = fracString.indexOfLast { it != '0' } + 1
        when {
            !isoZeroes && nonZeroDigits < 3 -> appendRange(fracString, 0, nonZeroDigits)
            else -> appendRange(fracString, 0, ((nonZeroDigits + 2) / 3) * 3)
        }
        append(unit)
    }
}
/**
 * Returns a string representation of this duration value expressed in the given [unit] and formatted with the specified [decimals] number of digits after decimal point.
 * Special cases:
 * - an infinite duration is formatted as "Infinity" or "-Infinity" without a unit.
 * @param decimals the number of digits after decimal point to show. The value must be non-negative.
 * No more than 12 decimals will be shown, even if a larger number is requested.
 * @return the value of duration in the specified [unit] followed by that unit abbreviated name: `d`, `h`, `m`, `s`, `ms`, `us`, or `ns`.
 * @throws IllegalArgumentException if [decimals] is less than zero.
 * @sample samples.time.Durations.toStringDecimals
 */
public fun toString(unit: DurationUnit, decimals: Int = 0): String {
    require(decimals >= 0) { "decimals must be not negative, but was $decimals" }
    val number = toDouble(unit)
    if (number.isInfinite()) return number.toString()
    return formatToExactDecimals(number, decimals.coerceAtMost(12)) + unit.shortName()
}
/**
 * Returns an ISO-8601 based string representation of this duration.
 * The returned value is presented in the format `PThHmMs.fS`, where `h`, `m`, `s` are the integer components of this duration (see [toComponents]) and `f` is a fractional part of second. Depending on the roundness of the value the fractional part can be formatted with either 0, 3, 6, or 9 decimal digits.
 * The infinite duration is represented as "PT999999999999999H" which is larger than any possible finite duration in Kotlin.
 * Negative durations are indicated with the sign '-' in the beginning of the returned string, for example, "-PT5M30S".
 * @sample samples.time.Durations.toIsoString
 */
public fun toIsoString(): String = buildString {
    if (isNegative()) append('-')
    append("PT")
    this@Duration.absoluteValue.toComponents { hours, minutes, seconds, nanoseconds ->
        @Suppress("NAME_SHADOWING")
        var hours = hours
        if (isInfinite()) {
            // use large enough value instead of Long.MAX_VALUE
            hours = 9_999_999_999_999
        }
        val hasHours = hours != 0L
        val hasSeconds = seconds != 0 || nanoseconds != 0
        val hasMinutes = minutes != 0 || (hasSeconds && hasHours)
        if (hasHours) {
            append(hours).append('H')
        }
        if (hasMinutes) {
            append(minutes).append('M')
        }
        if (hasSeconds || (!hasHours && !hasMinutes)) {
            appendFractional(seconds, nanoseconds, 9, "S", isoZeroes = true)
        }
    }
}
// constructing from number of units
// extension functions
/**
 * Returns a [Duration] equal to this [Int] number of the specified [unit].
 */
@SinceKotlin("1.6")
@WasExperimental(ExperimentalTime::class)
public fun Int.toDuration(unit: DurationUnit): Duration {
    return if (unit <= DurationUnit.SECONDS) {
        durationOfNanos(convertDurationUnitOverflow(this.toLong(), unit, DurationUnit.NANOSECONDS))
    } else {
        toLong().toDuration(unit)
    }
}
/**
 * Returns a [Duration] equal to this [Long] number of the specified [unit].
 */
@SinceKotlin("1.6")
@WasExperimental(ExperimentalTime::class)
public fun Long.toDuration(unit:

```



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DurationUnit): Duration {
    val maxNsInUnit = convertDurationUnitOverflow(MAX_NANOS,
DurationUnit.NANOSECONDS, unit)
    if (this in -maxNsInUnit..maxNsInUnit) {
        return
durationOfNanos(convertDurationUnitOverflow(this, unit, DurationUnit.NANOSECONDS))
    } else {
        val
millis = convertDurationUnit(this, unit, DurationUnit.MILLISECONDS)
        return
durationOfMillis(millis.coerceIn(-MAX_MILLIS, MAX_MILLIS))
    }
}

/** Returns a [Duration] equal
to this [Double] number of the specified [unit].
*/
* Depending on its magnitude, the value is rounded to an
integer number of nanoseconds or milliseconds.
*/
* @throws IllegalArgumentException if this `Double` value is
`NaN`.
*/
@SinceKotlin("1.6")
@WasExperimental(ExperimentalTime::class)
public fun
Double.toDuration(unit:
DurationUnit): Duration {
    val valueInNs = convertDurationUnit(this, unit, DurationUnit.NANOSECONDS)
    require(!valueInNs.isNaN()) { "Duration value cannot be NaN." }
    val nanos = valueInNs.roundToLong()
    return if (nanos in -MAX_NANOS..MAX_NANOS) {
        durationOfNanos(nanos)
    } else {
        val millis =
convertDurationUnit(this, unit, DurationUnit.MILLISECONDS).roundToLong()
        durationOfMillisNormalized(millis)
    }
}

// constructing from number of units
// deprecated extension
properties

/** Returns a [Duration] equal to this [Int] number of nanoseconds.
*/
@SinceKotlin("1.3")
@ExperimentalTime
@Deprecated("Use 'Int.nanoseconds' extension property from
Duration.Companion instead.", ReplaceWith("this.nanoseconds",
"kotlin.time.Duration.Companion.nanoseconds"))
@DeprecatedSinceKotlin(warningSince = "1.5")
public val
Int.nanoseconds get() = toDuration(DurationUnit.NANOSECONDS)

/** Returns a [Duration] equal to
this [Long] number of nanoseconds.
*/
@SinceKotlin("1.3")
@ExperimentalTime
@Deprecated("Use
'Long.nanoseconds' extension property from Duration.Companion instead.",
ReplaceWith("this.nanoseconds",
"kotlin.time.Duration.Companion.nanoseconds"))
@DeprecatedSinceKotlin(warningSince = "1.5")
public val
Long.nanoseconds get() = toDuration(DurationUnit.NANOSECONDS)

/** Returns a [Duration] equal to this
[Double] number of nanoseconds.
*/
* @throws IllegalArgumentException if this [Double] value is `NaN`.
*/
@SinceKotlin("1.3")
@ExperimentalTime
@Deprecated("Use 'Double.nanoseconds' extension property
from Duration.Companion instead.", ReplaceWith("this.nanoseconds",
"kotlin.time.Duration.Companion.nanoseconds"))
@DeprecatedSinceKotlin(warningSince = "1.5")
public val
Double.nanoseconds get() = toDuration(DurationUnit.NANOSECONDS)

/** Returns a [Duration] equal to
this [Int] number of microseconds.
*/
@SinceKotlin("1.3")
@ExperimentalTime
@Deprecated("Use
'Int.microseconds' extension property from Duration.Companion instead.",
ReplaceWith("this.microseconds",
"kotlin.time.Duration.Companion.microseconds"))
@DeprecatedSinceKotlin(warningSince = "1.5")
public val
Int.microseconds get() = toDuration(DurationUnit.MICROSECONDS)

/** Returns a [Duration] equal to this
[Long] number of microseconds.
*/
@SinceKotlin("1.3")
@ExperimentalTime
@Deprecated("Use
'Long.microseconds' extension property from Duration.Companion instead.",
ReplaceWith("this.microseconds",
"kotlin.time.Duration.Companion.microseconds"))
@DeprecatedSinceKotlin(warningSince = "1.5")
public val
Long.microseconds get() = toDuration(DurationUnit.MICROSECONDS)

/** Returns a [Duration] equal to
this [Double] number of microseconds.
*/
* @throws IllegalArgumentException if this [Double] value is
`NaN`.
*/
@SinceKotlin("1.3")
@ExperimentalTime
@Deprecated("Use 'Double.microseconds' extension
property from Duration.Companion
instead.", ReplaceWith("this.microseconds",
"kotlin.time.Duration.Companion.microseconds"))
@DeprecatedSinceKotlin(warningSince = "1.5")
public val
Double.microseconds get() = toDuration(DurationUnit.MICROSECONDS)

/** Returns a [Duration] equal to
this [Int] number of milliseconds.
*/
@SinceKotlin("1.3")
@ExperimentalTime
@Deprecated("Use
'Int.milliseconds' extension property from Duration.Companion instead.",
ReplaceWith("this.milliseconds",
"kotlin.time.Duration.Companion.milliseconds"))
@DeprecatedSinceKotlin(warningSince = "1.5")
public val
Int.milliseconds get() = toDuration(DurationUnit.MILLISECONDS)

/** Returns a [Duration] equal to this
[Long] number of milliseconds.
*/
@SinceKotlin("1.3")
@ExperimentalTime
@Deprecated("Use
'Long.milliseconds' extension property from Duration.Companion instead.",
ReplaceWith("this.milliseconds",

```

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\"kotlin.time.Duration.Companion.milliseconds\")\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic
val Long.milliseconds get() = toDuration(DurationUnit.MILLISECONDS)\n\n/**\n * Returns a [Duration] equal to
this [Double] number of milliseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n
*\n * @SinceKotlin(\"1.3\")\n * @ExperimentalTime\n * @Deprecated(\"Use 'Double.milliseconds' extension property
from Duration.Companion instead.\", ReplaceWith(\"this.milliseconds\"),
\"kotlin.time.Duration.Companion.milliseconds\")\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val
Double.milliseconds get() = toDuration(DurationUnit.MILLISECONDS)\n\n/**\n * Returns a [Duration] equal to this
[Int] number of seconds. *\n * @SinceKotlin(\"1.3\")\n * @ExperimentalTime\n * @Deprecated(\"Use 'Int.seconds'
extension property from Duration.Companion instead.\", ReplaceWith(\"this.seconds\"),
\"kotlin.time.Duration.Companion.seconds\")\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val
Int.seconds get() = toDuration(DurationUnit.SECONDS)\n\n/**\n * Returns a [Duration] equal
to this [Long] number of seconds. *\n * @SinceKotlin(\"1.3\")\n * @ExperimentalTime\n * @Deprecated(\"Use
'Long.seconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.seconds\"),
\"kotlin.time.Duration.Companion.seconds\")\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val
Long.seconds get() = toDuration(DurationUnit.SECONDS)\n\n/**\n * Returns a [Duration] equal to this [Double]
number of seconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n
*\n * @SinceKotlin(\"1.3\")\n * @ExperimentalTime\n * @Deprecated(\"Use 'Double.seconds' extension property from
Duration.Companion instead.\", ReplaceWith(\"this.seconds\"),
\"kotlin.time.Duration.Companion.seconds\")\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val
Double.seconds get() = toDuration(DurationUnit.SECONDS)\n\n/**\n * Returns a [Duration] equal to this [Int]
number of minutes. *\n * @SinceKotlin(\"1.3\")\n * @ExperimentalTime\n * @Deprecated(\"Use 'Int.minutes' extension
property
from Duration.Companion instead.\", ReplaceWith(\"this.minutes\"),
\"kotlin.time.Duration.Companion.minutes\")\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val
Int.minutes get() = toDuration(DurationUnit.MINUTES)\n\n/**\n * Returns a [Duration] equal to this [Long] number of
minutes. *\n * @SinceKotlin(\"1.3\")\n * @ExperimentalTime\n * @Deprecated(\"Use 'Long.minutes' extension property
from Duration.Companion instead.\", ReplaceWith(\"this.minutes\"),
\"kotlin.time.Duration.Companion.minutes\")\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val
Long.minutes get() = toDuration(DurationUnit.MINUTES)\n\n/**\n * Returns a [Duration] equal to this [Double]
number of minutes.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n
*\n * @SinceKotlin(\"1.3\")\n * @ExperimentalTime\n * @Deprecated(\"Use 'Double.minutes' extension property from
Duration.Companion instead.\", ReplaceWith(\"this.minutes\"),
\"kotlin.time.Duration.Companion.minutes\")\n@DeprecatedSinceKotlin(warningSince
= \"1.5\")\npublic val Double.minutes get() = toDuration(DurationUnit.MINUTES)\n\n/**\n * Returns a [Duration]
equal to this [Int] number of hours. *\n * @SinceKotlin(\"1.3\")\n * @ExperimentalTime\n * @Deprecated(\"Use
'Int.hours' extension property from Duration.Companion instead.\", ReplaceWith(\"this.hours\"),
\"kotlin.time.Duration.Companion.hours\")\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val
Int.hours get() = toDuration(DurationUnit.HOURS)\n\n/**\n * Returns a [Duration] equal to this [Long] number of
hours. *\n * @SinceKotlin(\"1.3\")\n * @ExperimentalTime\n * @Deprecated(\"Use 'Long.hours' extension property from
Duration.Companion instead.\", ReplaceWith(\"this.hours\"),
\"kotlin.time.Duration.Companion.hours\")\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val
Long.hours get() = toDuration(DurationUnit.HOURS)\n\n/**\n * Returns a [Duration] equal to this [Double]
number of hours.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n
*\n * @SinceKotlin(\"1.3\")\n * @ExperimentalTime\n * @Deprecated(\"Use
'Double.hours' extension property from Duration.Companion instead.\", ReplaceWith(\"this.hours\"),
\"kotlin.time.Duration.Companion.hours\")\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val
Double.hours get() = toDuration(DurationUnit.HOURS)\n\n/**\n * Returns a [Duration] equal to this [Int] number of
days. *\n * @SinceKotlin(\"1.3\")\n * @ExperimentalTime\n * @Deprecated(\"Use 'Int.days' extension property from

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Duration.Companion instead.\", ReplaceWith(\"this.days\",
\"kotlin.time.Duration.Companion.days\")\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Int.days
get() = toDuration(DurationUnit.DAYS)\n\n/** Returns a [Duration] equal to this [Long] number of days.
*\n*\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Long.days' extension property from
Duration.Companion instead.\", ReplaceWith(\"this.days\",
\"kotlin.time.Duration.Companion.days\")\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic
val Long.days get() = toDuration(DurationUnit.DAYS)\n\n/**\n * Returns a [Duration] equal to this [Double]
number of days.\n * \n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n
*\n*\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Double.days' extension property from
Duration.Companion instead.\", ReplaceWith(\"this.days\",
\"kotlin.time.Duration.Companion.days\")\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val
Double.days get() = toDuration(DurationUnit.DAYS)\n\n/** Returns a duration whose value is the specified
[duration] value multiplied by this number.
*\n*\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalTime::class)\n@kotlin.internal.InlineOnly\npublic
inline operator fun Int.times(duration: Duration): Duration = duration * this\n\n/**\n * Returns a duration whose
value is the specified [duration] value multiplied by this number.\n * \n * The operation may involve rounding when
the result cannot be represented exactly with
a [Double] number.\n * \n * @throws IllegalArgumentException if the operation results in a `NaN` value.\n
*\n*\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalTime::class)\n@kotlin.internal.InlineOnly\npublic
inline operator fun Double.times(duration: Duration): Duration = duration * this\n\n\nprivate fun
parseDuration(value: String, strictIso: Boolean): Duration {\n    var length = value.length\n    if (length == 0) throw
IllegalArgumentException(\"The string is empty\")\n    var index = 0\n    var result = Duration.ZERO\n    val
infinityString = \"Infinity\"\n    when (value[index]) {\n        '+', '-' -> index++\n    }\n    val hasSign = index > 0\n    val
isNegative = hasSign && value.startsWith('-')\n    when {\n        length <= index ->\n            throw
IllegalArgumentException(\"No components\")\n        value[index] == 'P' -> {\n            if (++index == length) throw
IllegalArgumentException()\n            val nonDigitSymbols = \".-\" \n            var isTimeComponent
= false\n            var prevUnit: DurationUnit? = null\n            while (index < length) {\n                if (value[index] ==
'T') {\n                    if (isTimeComponent || ++index == length) throw IllegalArgumentException()\n                    isTimeComponent = true\n                    continue\n                }\n                val component =
value.substringWhile(index) { it in '0'..'9' || it in nonDigitSymbols }\n                if (component.isEmpty()) throw
IllegalArgumentException()\n                index += component.length\n                val unitChar =
value.getOrElse(index) { throw IllegalArgumentException(\"Missing unit for value $component\") }\n                index++\n                val unit = durationUnitByIsoChar(unitChar, isTimeComponent)\n                if (prevUnit != null
&& prevUnit <= unit) throw IllegalArgumentException(\"Unexpected order of duration components\")\n                prevUnit = unit\n                val dotIndex = component.indexOf('.')\n                if (unit == DurationUnit.SECONDS && dotIndex > 0) {\n                    val whole =
component.substring(0, dotIndex)\n                    result += parseOverLongIsoComponent(whole).toDuration(unit)\n                    result += component.substring(dotIndex).toDouble().toDuration(unit)\n                } else {\n                    result += parseOverLongIsoComponent(component).toDuration(unit)\n                }\n            }\n            }\n            }\n            strictIso
->\n                throw IllegalArgumentException()\n            value.regionMatches(index, infinityString, 0, length =
maxOf(length - index, infinityString.length), ignoreCase = true) -> {\n                result = Duration.INFINITE\n            }\n            else -> {\n                // parse default string format\n                var prevUnit: DurationUnit? = null\n                var
afterFirst = false\n                var allowSpaces = !hasSign\n                if (hasSign && value[index] == '(' && value.last()
== ')') {\n                    allowSpaces
= true\n                    if (++index == --length) throw IllegalArgumentException(\"No components\")\n                }\n                while (index < length) {\n                    if (afterFirst && allowSpaces) {\n                        index = value.skipWhile(index) {
it == ' ' }\n                    }\n                    afterFirst = true\n                    val component = value.substringWhile(index) { it in
'0'..'9' || it == '.' }\n                    if (component.isEmpty()) throw IllegalArgumentException()\n                    index +=

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component.length\n        val unitName = value.substringWhile(index) { it in 'a'..'z' }\n        index +=
unitName.length\n        val unit = durationUnitByShortName(unitName)\n        if (prevUnit != null &&
prevUnit <= unit) throw IllegalArgumentException("\Unexpected order of duration components")\n
prevUnit = unit\n        val dotIndex = component.indexOf('.')\n        if (dotIndex > 0) {\n
    val whole = component.substring(0, dotIndex)\n        result += whole.toLong().toDuration(unit)\n
    result += component.substring(dotIndex).toDouble().toDuration(unit)\n        if (index < length) throw
IllegalArgumentException("Fractional component must be last")\n        } else {\n        result +=
component.toLong().toDuration(unit)\n        }\n        }\n        }\n        return if (isNegative) -result else
result\n}\n\nprivate fun parseOverLongIsoComponent(value: String): Long {\n    val length = value.length\n    var
startIndex = 0\n    if (length > 0 && value[0] in '+-') startIndex++\n    if ((length - startIndex) > 16 &&
(startIndex..value.lastIndex).all { value[it] in '0'..'9' }) {\n        // all chars are digits, but more than
ceiling(log10(MAX_MILLIS / 1000)) of them\n        return if (value[0] == '-') Long.MIN_VALUE else
Long.MAX_VALUE\n    }\n    // TODO: replace with just toLong after
min JDK becomes 8\n    return if (value.startsWith('+')) value.drop(1).toLong() else
value.toLong()\n}\n\nprivate inline fun String.substringWhile(startIndex: Int, predicate: (Char) -> Boolean):
String =\n    substring(startIndex, skipWhile(startIndex, predicate))\n\nprivate inline fun
String.skipWhile(startIndex: Int, predicate: (Char) -> Boolean): Int {\n    var i = startIndex\n    while (i < length &&
predicate(this[i])) i++\n    return i}\n}\n}\n}\n}\n\n// The ranges are chosen so that they are:\n// - symmetric relative to
zero: this greatly simplifies operations with sign, e.g. unaryMinus and minus.\n// - non-overlapping, but adjacent:
the first value that doesn't fit in nanos range, can be exactly represented in millis.\n\ninternal const val
NANOS_IN_MILLIS = 1_000_000\n// maximum number duration can store in nanosecond range\n\ninternal const
val MAX_NANOS = Long.MAX_VALUE / 2 / NANOS_IN_MILLIS * NANOS_IN_MILLIS - 1 // ends in
..._999_999\n// maximum number duration can store
in millisecond range, also encodes an infinite value\n\ninternal const val MAX_MILLIS = Long.MAX_VALUE /
2\n// MAX_NANOS expressed in milliseconds\n\nprivate const val MAX_NANOS_IN_MILLIS = MAX_NANOS /
NANOS_IN_MILLIS\n\nprivate fun nanosToMillis(nanos: Long): Long = nanos / NANOS_IN_MILLIS\n\nprivate
fun millisToNanos(millis: Long): Long = millis * NANOS_IN_MILLIS\n\nprivate fun
durationOfNanos(normalNanos: Long) = Duration(normalNanos shl 1)\n\nprivate fun durationOfMillis(normalMillis:
Long) = Duration((normalMillis shl 1) + 1)\n\nprivate fun durationOf(normalValue: Long, unitDiscriminator: Int) =
Duration((normalValue shl 1) + unitDiscriminator)\n\nprivate fun durationOfNanosNormalized(nanos: Long) =\n    if
(nanos in -MAX_NANOS..MAX_NANOS) {\n        durationOfNanos(nanos)\n    } else {\n
durationOfMillis(nanosToMillis(nanos))\n    }\n\nprivate fun durationOfMillisNormalized(millis: Long) =\n    if
(millis in -MAX_NANOS_IN_MILLIS..MAX_NANOS_IN_MILLIS) {\n
durationOfNanos(millisToNanos(millis))\n    } else {\n
durationOfMillis(millis.coerceIn(-MAX_MILLIS, MAX_MILLIS))\n    }\n}\n\ninternal expect val
durationAssertionsEnabled: Boolean\n\ninternal expect fun formatToExactDecimals(value: Double, decimals: Int):
String\n\ninternal expect fun formatUpToDecimals(value: Double, decimals: Int): String", "/*\n * Copyright 2010-
2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmName("UnsignedKt")\n\npackage kotlin\n\n@PublishedApi\n\ninternal fun uintCompare(v1:
Int, v2: Int): Int = (v1 xor Int.MIN_VALUE).compareTo(v2 xor Int.MIN_VALUE)\n\n@PublishedApi\n\ninternal fun
ulongCompare(v1: Long, v2: Long): Int = (v1 xor Long.MIN_VALUE).compareTo(v2 xor
Long.MIN_VALUE)\n\n@PublishedApi\n\ninternal fun uintDivide(v1: UInt, v2: UInt): UInt = (v1.toLong() /
v2.toLong()).toUInt()\n\n@PublishedApi\n\ninternal fun uintRemainder(v1:
UInt, v2: UInt): UInt = (v1.toLong() % v2.toLong()).toUInt()\n\n// Division and remainder are based on Guava's
UnsignedLongs implementation\n\n// Copyright 2011 The Guava Authors\n\n@PublishedApi\n\ninternal fun
ulongDivide(v1: ULong, v2: ULong): ULong {\n    val dividend = v1.toLong()\n    val divisor = v2.toLong()\n    if
(divisor < 0) { // i.e., divisor >= 2^63:\n        return if (v1 < v2) ULong(0) else ULong(1)\n    }\n}\n\n// Optimization

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- use signed division if both dividend and divisor < 2^63\n  if (dividend >= 0) {\n    return ULong(dividend /
divisor)\n  }\n\n // Otherwise, approximate the quotient, check, and correct if necessary.\n  val quotient =
((dividend ushr 1) / divisor) shl 1\n  val rem = dividend - quotient * divisor\n  return ULong(quotient + if
(ULong(rem) >= ULong(divisor)) 1 else 0)\n}\n\n@PublishedApi\ninternal fun ulongRemainder(v1: ULong, v2:
ULong): ULong {\n  val dividend = v1.toLong()\n  val divisor = v2.toLong()\n  if (divisor < 0)
{\n    // i.e., divisor >= 2^63:\n    return if (v1 < v2) {\n      v1 // dividend < divisor\n    } else {\n      v1 - v2
// dividend >= divisor\n    }\n  }\n\n // Optimization - use signed modulus if both dividend and divisor < 2^63\n
if (dividend >= 0) {\n    return ULong(dividend % divisor)\n  }\n\n // Otherwise, approximate the quotient,
check, and correct if necessary.\n  val quotient = ((dividend ushr 1) / divisor) shl 1\n  val rem = dividend -
quotient * divisor\n  return ULong(rem - if (ULong(rem) >= ULong(divisor)) divisor else
0)\n}\n\n@PublishedApi\ninternal fun doubleToUInt(v: Double): UInt = when {\n  v.isNaN() -> 0u\n  v <=
UInt.MIN_VALUE.toDouble() -> UInt.MIN_VALUE\n  v >= UInt.MAX_VALUE.toDouble() ->
UInt.MAX_VALUE\n  v <= Int.MAX_VALUE -> v.toInt().toUInt()\n  else -> (v -
Int.MAX_VALUE).toInt().toUInt() + Int.MAX_VALUE.toUInt() // Int.MAX_VALUE < v <
UInt.MAX_VALUE\n}\n\n@PublishedApi\ninternal fun doubleToULong(v:
Double): ULong = when {\n  v.isNaN() -> 0u\n  v <= ULong.MIN_VALUE.toDouble() ->
ULong.MIN_VALUE\n  v >= ULong.MAX_VALUE.toDouble() -> ULong.MAX_VALUE\n  v <
Long.MAX_VALUE -> v.toLong().toULong()\n\n // Real values from Long.MAX_VALUE to
(Long.MAX_VALUE + 1) are not representable in Double, so don't handle them.\n  else -> (v -
9223372036854775808.0).toLong().toULong() + 9223372036854775808uL // Long.MAX_VALUE + 1 < v <
ULong.MAX_VALUE\n}\n\n@PublishedApi\ninternal fun uintToDouble(v: Int): Double = (v and
Int.MAX_VALUE).toDouble() + (v ushr 31 shl 30).toDouble() * 2\n\n@PublishedApi\ninternal fun
ulongToDouble(v: Long): Double = (v ushr 11).toDouble() * 2048 + (v and 2047)\n\n\ninternal fun
ulongToString(v: Long): String = ulongToString(v, 10)\n\ninternal fun ulongToString(v: Long, base: Int): String {\n
if (v >= 0) return v.toString(base)\n  var quotient = ((v ushr 1) / base) shl 1\n  var rem = v - quotient * base\n
if (rem >= base) {\n    rem
- = base\n    quotient += 1\n  }\n  return quotient.toString(base) + rem.toString(base)\n}\n\n", "/*\n * Copyright
2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("CollectionsKt")\n\npackage
kotlin.collections\n\n/**\n * Given an [iterator] function constructs an [Iterable] instance that returns values through
the [Iterator]\n * provided by that function.\n * @sample samples.collections.Iterables.Building.iterable\n
*\n\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable(crossinline iterator: () -> Iterator<T>): Iterable<T>
= object : Iterable<T> {\n  override fun iterator(): Iterator<T> = iterator()\n}\n\n/**\n * A wrapper over another
[Iterable] (or any other object that can produce an [Iterator]) that returns\n * an indexing iterator.\n */\n\ninternal class
IndexingIterable<out
T>(private val iteratorFactory: () -> Iterator<T>) : Iterable<IndexedValue<T>> {\n  override fun iterator():
Iterator<IndexedValue<T>> = IndexingIterator(iteratorFactory())\n}\n\n\n/**\n * Returns the size of this iterable if
it is known, or `null` otherwise.\n */\n\n@PublishedApi\ninternal fun <T> Iterable<T>.collectionSizeOrNull(): Int? =
if (this is Collection<*>) this.size else null\n\n/**\n * Returns the size of this iterable if it is known, or the specified
[default] value otherwise.\n */\n\n@PublishedApi\ninternal fun <T> Iterable<T>.collectionSizeOrDefault(default:
Int): Int = if (this is Collection<*>) this.size else default\n\n\n/**\n * Returns a single list of all elements from all
collections in the given collection.\n * @sample samples.collections.Iterables.Operations.flattenIterable\n */\n\npublic
fun <T> Iterable<Iterable<T>>.flatten(): List<T> {\n  val result = ArrayList<T>()\n  for (element in this) {\n
result.addAll(element)\n  }\n  return
result\n}\n\n/**\n * Returns a pair of lists, where\n * *first* list is built from the first values of each pair from this
collection,\n * *second* list is built from the second values of each pair from this collection.\n * @sample
samples.collections.Iterables.Operations.unzipIterable\n */\n\npublic fun <T, R> Iterable<Pair<T, R>>.unzip():

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Pair<List<T>, List<R>> { \n    val expectedSize = collectionSizeOrDefault(10)\n    val listT =
ArrayList<T>(expectedSize)\n    val listR = ArrayList<R>(expectedSize)\n    for (pair in this) {\n
listT.add(pair.first)\n    listR.add(pair.second)\n    }\n    return listT to listR\n}\n\n"/*\n * Copyright 2010-2020
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("\SequencesKt")\n\npackage
kotlin.sequences\n\nimport kotlin.random.Random\n\n/**\n
* Given an [iterator] function constructs a [Sequence] that returns values through the [Iterator]\n * provided by that
function.\n * The values are evaluated lazily, and the sequence is potentially infinite.\n * \n * @sample
samples.collections.Sequences.Building.sequenceFromIterator\n */\n\n@kotlin.internal.InlineOnly\n\npublic inline fun
<T> Sequence(crossinline iterator: () -> Iterator<T>): Sequence<T> = object : Sequence<T> {\n    override fun
iterator(): Iterator<T> = iterator()\n}\n\n/**\n * Creates a sequence that returns all elements from this iterator. The
sequence is constrained to be iterated only once.\n * \n * @sample
samples.collections.Sequences.Building.sequenceFromIterator\n */\n\npublic fun <T> Iterator<T>.asSequence():
Sequence<T> = Sequence { this }.constrainOnce()\n\n/**\n * Creates a sequence that returns the specified values.\n * \n *
@sample samples.collections.Sequences.Building.sequenceOfValues\n */\n\npublic fun <T> sequenceOf(vararg
elements: T): Sequence<T> = if (elements.isEmpty())
emptySequence() else elements.asSequence()\n\n/**\n * Returns an empty sequence.\n */\n\npublic fun <T>
emptySequence(): Sequence<T> = EmptySequence\n\nprivate object EmptySequence : Sequence<Nothing>,
DropTakeSequence<Nothing> {\n    override fun iterator(): Iterator<Nothing> = EmptyIterator\n    override fun
drop(n: Int) = EmptySequence\n    override fun take(n: Int) = EmptySequence\n}\n\n/**\n * Returns this sequence if
it's not `null` and the empty sequence otherwise.\n * \n * @sample
samples.collections.Sequences.Usage.sequenceOrEmpty\n
*/\n\n@SinceKotlin("1.3")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun <T> Sequence<T>?.orEmpty():
Sequence<T> = this ?. emptySequence()\n\n/**\n * Returns a sequence that iterates through the elements either of
this sequence\n * or, if this sequence turns out to be empty, of the sequence returned by [defaultValue] function.\n
*\n * @sample samples.collections.Sequences.Usage.sequenceIfEmpty\n */\n\n@SinceKotlin("1.3")\n\npublic fun
<T>
Sequence<T>.ifEmpty(defaultValue: () -> Sequence<T>): Sequence<T> = sequence {\n    val iterator =
this@ifEmpty.iterator()\n    if (iterator.hasNext()) {\n        yieldAll(iterator)\n    } else {\n
yieldAll(defaultValue())\n    }\n}\n\n/**\n * Returns a sequence of all elements from all sequences in this
sequence.\n * \n * The operation is _intermediate_ and _stateless_.\n * \n * @sample
samples.collections.Sequences.Transformations.flattenSequenceOfSequences\n */\n\npublic fun <T>
Sequence<Sequence<T>>.flatten(): Sequence<T> = flatten { it.iterator() }\n\n/**\n * Returns a sequence of all
elements from all iterables in this sequence.\n * \n * The operation is _intermediate_ and _stateless_.\n * \n *
@sample samples.collections.Sequences.Transformations.flattenSequenceOfLists\n
*/\n\n@kotlin.jvm.JvmName("\flattenSequenceOfIterable")\n\npublic fun <T> Sequence<Iterable<T>>.flatten():
Sequence<T> = flatten { it.iterator() }\n\nprivate fun <T, R> Sequence<T>.flatten(iterator: (T) -> Iterator<R>):
Sequence<R> {\n    if (this is TransformingSequence<*, *>) {\n        return (this as TransformingSequence<*,
T>).flatten(iterator)\n    }\n    return FlatteningSequence(this, { it }, iterator)\n}\n\n/**\n * Returns a pair of lists,
where\n * first list is built from the first values of each pair from this sequence,\n * second list is built from the
second values of each pair from this sequence.\n * \n * The operation is _terminal_.\n * \n * @sample
samples.collections.Sequences.Transformations.unzip\n */\n\npublic fun <T, R> Sequence<Pair<T, R>>.unzip():
Pair<List<T>, List<R>> {\n    val listT = ArrayList<T>()\n    val listR = ArrayList<R>()\n    for (pair in this) {\n
listT.add(pair.first)\n    listR.add(pair.second)\n    }\n    return listT to listR\n}\n\n/**\n * Returns a sequence that
yields elements of this sequence randomly shuffled.\n * \n * Note that every iteration of the sequence returns
elements in a different order.\n * \n * The operation is _intermediate_

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and _stateful_.\n *\n@SinceKotlin("1.4")\npublic fun <T> Sequence<T>.shuffled(): Sequence<T> =
shuffled(Random)\n\n/**\n * Returns a sequence that yields elements of this sequence randomly shuffled\n * using
the specified [random] instance as the source of randomness.\n *\n * Note that every iteration of the sequence
returns elements in a different order.\n *\n * The operation is _intermediate_ and _stateful_.\n
*\n@SinceKotlin("1.4")\npublic fun <T> Sequence<T>.shuffled(random: Random): Sequence<T> =
sequence<T> {\n    val buffer = toMutableList()\n    while (buffer.isNotEmpty()) {\n        val j =
random.nextInt(buffer.size)\n        val last = buffer.removeLast()\n        val value = if (j < buffer.size) buffer.set(j,
last) else last\n        yield(value)\n    }\n}\n\n/**\n * A sequence that returns the values from the underlying
[sequence] that either match or do not match\n * the specified [predicate].\n *\n * @param sendWhen If `true`,
values for which the predicate returns
`true` are returned. Otherwise,\n * values for which the predicate returns `false` are returned\n *\n@internal class
FilteringSequence<T>(\n    private val sequence: Sequence<T>,\n    private val sendWhen: Boolean = true,\n    private val predicate: (T) -> Boolean\n) : Sequence<T> {\n    override fun iterator(): Iterator<T> = object :
Iterator<T> {\n        val iterator = sequence.iterator()\n        var nextState: Int = -1 // -1 for unknown, 0 for done, 1
for continue\n        var nextItem: T? = null\n        private fun calcNext() {\n            while (iterator.hasNext()) {\n
                val item = iterator.next()\n                if (predicate(item) == sendWhen) {\n                    nextItem = item\n
                    nextState = 1\n                    return\n                }\n            }\n            nextState = 0\n        }\n        override fun
next(): T {\n            if (nextState == -1)\n                calcNext()\n            if (nextState == 0)\n                throw NoSuchElementException()\n            val result = nextItem\n            nextItem = null\n            nextState = -
1\n            @Suppress("UNCHECKED_CAST")\n            return result as T\n        }\n        override fun
hasNext(): Boolean {\n            if (nextState == -1)\n                calcNext()\n            return nextState == 1\n        }\n    }\n}\n\n/**\n * A sequence which returns the results of applying the given [transformer] function to the values\n *
in the underlying [sequence].\n *\n@internal class TransformingSequence<T, R>\nconstructor(private val
sequence: Sequence<T>, private val transformer: (T) -> R) : Sequence<R> {\n    override fun iterator(): Iterator<R>
= object : Iterator<R> {\n        val iterator = sequence.iterator()\n        override fun next(): R {\n            return
transformer(iterator.next())\n        }\n        override fun hasNext(): Boolean {\n            return iterator.hasNext()\n
        }\n    }\n}\n\n    internal fun <E>\n    flatten(iterator: (R) -> Iterator<E>): Sequence<E> {\n        return FlatteningSequence<T, R, E>(sequence,
transformer, iterator)\n    }\n}\n\n/**\n * A sequence which returns the results of applying the given [transformer]
function to the values\n * in the underlying [sequence], where the transformer function takes the index of the value
in the underlying\n * sequence along with the value itself.\n *\n@internal class TransformingIndexedSequence<T,
R>\nconstructor(private val sequence: Sequence<T>, private val transformer: (Int, T) -> R) : Sequence<R> {\n    override fun iterator(): Iterator<R> = object : Iterator<R> {\n        val iterator = sequence.iterator()\n        var index =
0\n        override fun next(): R {\n            return transformer(checkIndexOverflow(index++), iterator.next())\n
        }\n        override fun hasNext(): Boolean {\n            return iterator.hasNext()\n        }\n    }\n}\n\n/**\n * A
sequence which combines values from the underlying [sequence] with
their indices and returns them as\n * [IndexedValue] objects.\n *\n@internal class
IndexingSequence<T>\nconstructor(private val sequence: Sequence<T>) : Sequence<IndexedValue<T>> {\n    override fun iterator(): Iterator<IndexedValue<T>> = object : Iterator<IndexedValue<T>> {\n        val iterator =
sequence.iterator()\n        var index = 0\n        override fun next(): IndexedValue<T> {\n            return
IndexedValue(checkIndexOverflow(index++), iterator.next())\n        }\n        override fun hasNext(): Boolean {\n
            return iterator.hasNext()\n        }\n    }\n}\n\n/**\n * A sequence which takes the values from two parallel
underlying sequences, passes them to the given\n * [transform] function and returns the values returned by that
function. The sequence stops returning\n * values as soon as one of the underlying sequences stops returning
values.\n *\n@internal class MergingSequence<T1, T2, V>\nconstructor(\n    private val sequence1:
Sequence<T1>,\n    private val
sequence2: Sequence<T2>,\n    private val transform: (T1, T2) -> V\n) : Sequence<V> {\n    override fun iterator():
Iterator<V> = object : Iterator<V> {\n        val iterator1 = sequence1.iterator()\n        val iterator2 =

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sequence2.iterator()\n    override fun next(): V {\n        return transform(iterator1.next(), iterator2.next())\n    }\n\n    override fun hasNext(): Boolean {\n        return iterator1.hasNext() && iterator2.hasNext()\n    }\n}\n\ninternal class FlatteningSequence<T, R, E>\nconstructor(\n    private val sequence: Sequence<T>,\n    private val transformer: (T) -> R,\n    private val iterator: (R) -> Iterator<E>)\n: Sequence<E> {\n    override fun\n    iterator(): Iterator<E> = object : Iterator<E> {\n        val iterator = sequence.iterator()\n        var itemIterator:\n        Iterator<E>? = null\n        override fun next(): E {\n            if (!ensureItemIterator())\n                throw\n                NoSuchElementException()\n            return itemIterator!!.next()\n        }\n        override fun hasNext(): Boolean {\n            return ensureItemIterator()\n        }\n        private fun\n        ensureItemIterator(): Boolean {\n            if (itemIterator?.hasNext() == false)\n                itemIterator = null\n            while (itemIterator == null) {\n                if (!iterator.hasNext())\n                    return false\n            } else {\n                val element = iterator.next()\n                val nextItemIterator = iterator(transformer(element))\n            }\n            if (nextItemIterator.hasNext())\n                itemIterator = nextItemIterator\n            return true\n        }\n    }\n}\n\ninternal fun <T, C, R> flatMapIndexed(source:\nSequence<T>, transform: (Int, T) -> C, iterator: (C) -> Iterator<R>): Sequence<R> =\nsequence {\n    var\n    index = 0\n    for (element in source) {\n        val result = transform(checkIndexOverflow(index++), element)\n        yieldAll(iterator(result))\n    }\n}\n\n/**\n * A sequence that supports drop(n) and take(n) operations\n */\ninternal interface\nDropTakeSequence<T> : Sequence<T> {\n    fun drop(n: Int): Sequence<T>\n    fun take(n: Int):\nSequence<T>\n}\n\n/**\n * A sequence that skips [startIndex] values from the underlying [sequence]\n * and stops\n returning values right before [endIndex], i.e. stops at `endIndex - 1`\n */\ninternal class SubSequence<T>(\n    private val sequence: Sequence<T>,\n    private val startIndex: Int,\n    private val endIndex: Int)\n: Sequence<T>,\nDropTakeSequence<T> {\n    init {\n        require(startIndex >= 0) { \"startIndex should be non-negative, but is\n        $startIndex\" }\n        require(endIndex >= 0) { \"endIndex should be non-negative, but is\n        $endIndex\" }\n        require(endIndex >= startIndex) { \"endIndex should be not less than\n        startIndex, but was $endIndex < $startIndex\" }\n    }\n    private val count: Int get() = endIndex - startIndex\n    override fun drop(n: Int): Sequence<T> = if\n(n >= count) emptySequence() else SubSequence(sequence, startIndex + n,\nendIndex)\n    override fun take(n: Int):\nSequence<T> = if (n >= count) this else SubSequence(sequence, startIndex,\nstartIndex + n)\n    override fun\n    iterator() = object : Iterator<T> {\n        val iterator = sequence.iterator()\n        var position = 0\n        //\n        Shouldn't be called from constructor to avoid premature iteration\n        private fun drop() {\n            while (position\n            < startIndex && iterator.hasNext())\n                iterator.next()\n            position++\n        }\n        override fun hasNext(): Boolean {\n            drop()\n            return (position < endIndex) && iterator.hasNext()\n        }\n        override fun next(): T {\n            drop()\n            if (position >= endIndex)\n                throw\n                NoSuchElementException()\n            position++\n            return iterator.next()\n        }\n    }\n}\n\n/**\n * A sequence that returns at most [count]\n values from the underlying [sequence], and stops returning values\n * as soon as that count is reached.\n */\ninternal\n class TakeSequence<T>(\n    private val sequence: Sequence<T>,\n    private val count: Int)\n: Sequence<T>,\nDropTakeSequence<T> {\n    init {\n        require(count >= 0) { \"count must be non-negative, but was\n        $count.\" }\n    }\n    override fun drop(n: Int): Sequence<T> = if (n >= count) emptySequence() else\nSubSequence(sequence, n, count)\n    override fun take(n: Int): Sequence<T> = if (n >= count) this else\nTakeSequence(sequence, n)\n    override fun iterator(): Iterator<T> = object : Iterator<T> {\n        var left =\n        count\n        val iterator = sequence.iterator()\n        override fun next(): T {\n            if (left == 0)\n                throw\n                NoSuchElementException()\n            left--\n            return iterator.next()\n        }\n        override fun hasNext(): Boolean {\n            return left > 0 && iterator.hasNext()\n        }\n    }\n}\n\n/**\n * A sequence that returns values from the underlying [sequence] while the\n [predicate] function\n returns `true`, and stops returning values once the function returns `false`\n for the next element.\n */\ninternal\n class TakeWhileSequence<T>\nconstructor(\n    private val sequence: Sequence<T>,\n    private val predicate: (T) -\n> Boolean)\n: Sequence<T> {\n    override fun iterator(): Iterator<T> = object : Iterator<T> {\n        val iterator =\n        sequence.iterator()\n        var nextState: Int = -1 // -1 for unknown, 0 for done, 1 for continue\n        var nextItem: T?\n    }\n}

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= null\n\n    private fun calcNext() {\n        if (iterator.hasNext()) {\n            val item = iterator.next()\n            if (predicate(item)) {\n                nextState = 1\n                nextItem = item\n                return\n            }\n            nextState = 0\n        }\n        override fun next(): T {\n            if (nextState == -1)\n                calcNext() // will change nextState\n            if (nextState == 0)\n                throw NoSuchElementException()\n            @Suppress("UNCHECKED_CAST")\n                val result = nextItem as T\n                // Clean next to avoid\n                keeping reference on yielded instance\n                nextItem = null\n                nextState = -1\n                return result\n        }\n        override fun hasNext(): Boolean {\n            if (nextState == -1)\n                calcNext() // will change\n                nextState\n            return nextState == 1\n        }\n    }\n\n    /**\n     * A sequence that skips the specified number of\n     * values from the underlying [sequence] and returns\n     * all values after that.\n     */\n    internal class DropSequence<T>(\n        private val sequence: Sequence<T>,\n        private val count: Int\n    ) : Sequence<T>, DropTakeSequence<T> {\n        init\n            {\n                require(count >= 0) { "\"count must be non-negative, but was $count.\" }\n            }\n        override fun drop(n: Int):\n            Sequence<T> = (count + n).let { n1 -> if (n1 < 0) DropSequence(this, n) else DropSequence(sequence, n1) }\n        override fun take(n: Int): Sequence<T> = (count + n).let { n1 -> if (n1 < 0) TakeSequence(this, n) else\n            SubSequence(sequence, count, n1) }\n        override fun iterator(): Iterator<T> = object : Iterator<T> {\n            val\n            iterator = sequence.iterator()\n            var left = count\n            // Shouldn't be called from constructor to avoid\n            premature iteration\n            private fun drop() {\n                while (left > 0 && iterator.hasNext()) {\n                    iterator.next()\n                    left--\n                }\n            }\n            override fun next(): T {\n                drop()\n                return\n                iterator.next()\n            }\n            override fun hasNext(): Boolean {\n                drop()\n                return iterator.hasNext()\n            }\n        }\n    }\n\n    /**\n     * A sequence\n     * that skips the values from the underlying [sequence] while the given [predicate] returns `true` and returns\n     * all\n     * values after that.\n     */\n    internal class DropWhileSequence<T>(\n        private val sequence:\n        Sequence<T>,\n        private val predicate: (T) -> Boolean\n    ) : Sequence<T> {\n        override fun iterator():\n        Iterator<T> = object : Iterator<T> {\n            val iterator = sequence.iterator()\n            var dropState: Int = -1 // -1 for not\n            dropping, 1 for nextItem, 0 for normal iteration\n            var nextItem: T? = null\n            private fun drop() {\n                while (iterator.hasNext()) {\n                    val item = iterator.next()\n                    if (!predicate(item)) {\n                        nextItem = item\n                        dropState = 1\n                        return\n                    }\n                    dropState = 0\n                }\n            }\n            override fun next(): T {\n                if (dropState == -1)\n                    drop()\n                if (dropState == 1)\n                    {\n                        @Suppress("UNCHECKED_CAST")\n                            val result = nextItem as T\n                            nextItem =\n                            null\n                            dropState = 0\n                            return result\n                    }\n                return iterator.next()\n            }\n            override fun hasNext(): Boolean {\n                if (dropState == -1)\n                    drop()\n                return dropState == 1 ||\n                iterator.hasNext()\n            }\n        }\n    }\n\n    internal class DistinctSequence<T, K>(\n        private val source: Sequence<T>,\n        private val keySelector: (T) -> K\n    ) : Sequence<T> {\n        override fun iterator(): Iterator<T> =\n        DistinctIterator(source.iterator(), keySelector)\n    }\n\n    private class DistinctIterator<T, K>(\n        private val source:\n        Iterator<T>,\n        private val keySelector: (T) -> K\n    ) : AbstractIterator<T>() {\n        private val observed =\n        HashSet<K>()\n        override fun computeNext() {\n            while (source.hasNext()) {\n                val next =\n                source.next()\n                val key = keySelector(next)\n                if (observed.add(key))\n                    {\n                        setNext(next)\n                        return\n                    }\n                done()\n            }\n        }\n    }\n\n    private class\n    GeneratorSequence<T : Any>(\n        private val getInitialValue: () -> T?,\n        private val getNextValue: (T) -> T?\n    ) : Sequence<T> {\n        override fun iterator(): Iterator<T> = object : Iterator<T> {\n            var nextItem: T? = null\n            var\n            nextState: Int = -2 // -2 for initial unknown, -1 for next unknown, 0 for done, 1 for continue\n            private fun\n            calcNext() {\n                nextItem = if (nextState == -2) getInitialValue() else getNextValue(nextItem!)\n                nextState = if (nextItem == null) 0 else 1\n            }\n            override fun next(): T {\n                if (nextState < 0)\n                    calcNext()\n                if (nextState == 0)\n                    throw NoSuchElementException()\n                val result =\n                nextItem as T\n                // Do not clean nextItem (to avoid keeping reference on yielded instance) -- need to keep\n                state for\n                getNextValue\n                nextState = -1\n                return result\n            }\n            override fun hasNext(): Boolean {\n                if (nextState < 0)\n                    calcNext()\n                return nextState == 1\n            }\n        }\n    }\n\n    /**\n     * Returns a

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wrapper sequence that provides values of this sequence, but ensures it can be iterated only one time.\n *\n * The
operation is _intermediate_ and _stateless_.\n *\n * [IllegalStateException] is thrown on iterating the returned
sequence for the second time and the following times.\n *\n */\npublic fun <T> Sequence<T>.constrainOnce():
Sequence<T> {\n // as? does not work in js\n //return this as? ConstrainedOnceSequence<T> ?:\n
ConstrainedOnceSequence(this)\n return if (this is ConstrainedOnceSequence<T>) this else
ConstrainedOnceSequence(this)\n}\n\n/**\n * Returns a sequence which invokes the function to calculate the next
value on each iteration until the function returns `null`.\n *\n * The returned sequence is constrained
to be iterated only once.\n *\n * @see constrainOnce\n * @see kotlin.sequences.sequence\n *\n * @sample
samples.collections.Sequences.Building.generateSequence\n */\npublic fun <T : Any>
generateSequence(nextFunction: () -> T?): Sequence<T> {\n return GeneratorSequence(nextFunction, {
nextFunction() }).constrainOnce()\n}\n\n/**\n * Returns a sequence defined by the starting value [seed] and the
function [nextFunction],\n * which is invoked to calculate the next value based on the previous one on each
iteration.\n *\n * The sequence produces values until it encounters first `null` value.\n * If [seed] is `null`, an empty
sequence is produced.\n *\n * The sequence can be iterated multiple times, each time starting with [seed].\n *\n *
@see kotlin.sequences.sequence\n *\n * @sample
samples.collections.Sequences.Building.generateSequenceWithSeed\n
*/\n@kotlin.internal.LowPriorityInOverloadResolution\npublic fun <T : Any> generateSequence(seed: T?,
nextFunction: (T) -> T?): Sequence<T>
=\n if (seed == null)\n EmptySequence\n else\n GeneratorSequence({ seed }, nextFunction)\n\n/**\n *
Returns a sequence defined by the function [seedFunction], which is invoked to produce the starting value,\n * and
the [nextFunction], which is invoked to calculate the next value based on the previous one on each iteration.\n *\n *
The sequence produces values until it encounters first `null` value.\n * If [seedFunction] returns `null`, an empty
sequence is produced.\n *\n * The sequence can be iterated multiple times.\n *\n * @see
kotlin.sequences.sequence\n *\n * @sample
samples.collections.Sequences.Building.generateSequenceWithLazySeed\n */\npublic fun <T : Any>
generateSequence(seedFunction: () -> T?, nextFunction: (T) -> T?): Sequence<T> =\n
GeneratorSequence(seedFunction, nextFunction)\n\n"/\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("PreconditionsKt")\n\npackage
kotlin\n\nimport kotlin.contracts.contract\n\n/**\n * Throws an [IllegalArgumentException] if the [value] is false.\n
*\n * @sample samples.misc.Preconditions.failRequireWithLazyMessage\n */\n@kotlin.internal.InlineOnly\npublic
inline fun require(value: Boolean): Unit {\n contract {\n returns() implies value\n }\n require(value) {\n
"Failed requirement." }\n}\n\n/**\n * Throws an [IllegalArgumentException] with the result of calling
[lazyMessage] if the [value] is false.\n *\n * @sample samples.misc.Preconditions.failRequireWithLazyMessage\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun require(value: Boolean, lazyMessage: () -> Any): Unit {\n
contract {\n returns() implies value\n }\n if (!value) {\n val message = lazyMessage()\n throw
IllegalArgumentException(message.toString())\n }\n}\n\n/**\n * Throws an [IllegalArgumentException] if the [value] is null. Otherwise returns the not null value.\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun <T : Any> requireNotNull(value: T?): T {\n contract {\n
returns() implies (value != null)\n }\n return requireNotNull(value) {"Required value was null." }\n}\n\n/**\n *
Throws an [IllegalArgumentException] with the result of calling [lazyMessage] if the [value] is null. Otherwise\n
* returns the not null value.\n *\n * @sample samples.misc.Preconditions.failRequireNotNullWithLazyMessage\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun <T : Any> requireNotNull(value: T?, lazyMessage: () -> Any): T
{\n contract {\n returns() implies (value != null)\n }\n if (value == null) {\n val message =
lazyMessage()\n throw IllegalArgumentException(message.toString())\n } else {\n return value\n
}\n}\n\n/**\n * Throws an [IllegalStateException] if the [value] is false.\n *\n */

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* @sample samples.misc.Preconditions.failCheckWithLazyMessage\n *\n@kotlin.internal.InlineOnly\npublic
inline fun check(value: Boolean): Unit {\n  contract {\n    returns() implies value\n  }\n  check(value) {\n
  \"Check failed.\" }\n}\n\n/**\n * Throws an [IllegalStateException] with the result of calling [lazyMessage] if the
[value] is false.\n *\n * @sample samples.misc.Preconditions.failCheckWithLazyMessage\n
*\n@kotlin.internal.InlineOnly\npublic inline fun check(value: Boolean, lazyMessage: () -> Any): Unit {\n
contract {\n  returns() implies value\n  }\n  if (!value) {\n    val message = lazyMessage()\n    throw
IllegalStateException(message.toString())\n  }\n}\n\n/**\n * Throws an [IllegalStateException] if the [value] is
null. Otherwise\n * returns the not null value.\n *\n * @sample
samples.misc.Preconditions.failCheckWithLazyMessage\n *\n@kotlin.internal.InlineOnly\npublic inline fun <T :
Any> checkNotNull(value: T?): T {\n  contract {\n
    returns() implies (value != null)\n  }\n  return checkNotNull(value) { \"Required value was null.\"
}\n}\n\n/**\n * Throws an [IllegalStateException] with the result of calling [lazyMessage] if the [value] is null.
Otherwise\n * returns the not null value.\n *\n * @sample
samples.misc.Preconditions.failCheckWithLazyMessage\n *\n@kotlin.internal.InlineOnly\npublic inline fun <T :
Any> checkNotNull(value: T?, lazyMessage: () -> Any): T {\n  contract {\n    returns() implies (value != null)\n
  }\n  if (value == null) {\n    val message = lazyMessage()\n    throw
IllegalStateException(message.toString())\n  } else {\n    return value\n  }\n}\n\n/**\n * Throws an
[IllegalStateException] with the given [message].\n *\n * @sample samples.misc.Preconditions.failWithError\n
*\n@kotlin.internal.InlineOnly\npublic inline fun error(message: Any): Nothing = throw
IllegalStateException(message.toString())\n\" ,\"/>\n * Copyright 2010-2021 JetBrains s.r.o. and
Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\n *\n@npackage kotlin.collections\n\n/\n/\n NOTE: THIS FILE IS
AUTO-GENERATED by the GenerateStandardLib.kt\n See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\n/\n\nimport kotlin.js.*\nimport
primitiveArrayConcat\nimport withType\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n *
Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds
of this array.\n *\n * @sample samples.collections.Collections.Elements.elementAt\n *\npublic actual fun <T>
Array<out T>.elementAt(index: Int): T {\n  return elementAtOrElse(index) { throw
IndexOutOfBoundsException(\"index: $index, size: $size\") }\n}\n\n/**\n * Returns an element at the given
[index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n
*\n * @sample samples.collections.Collections.Elements.elementAt\n *\npublic actual fun
ByteArray.elementAt(index: Int): Byte {\n  return elementAtOrElse(index) { throw
IndexOutOfBoundsException(\"index: $index, size: $size\") }\n}\n\n/**\n * Returns an element at the given
[index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n *\n * @sample
samples.collections.Collections.Elements.elementAt\n *\npublic actual fun ShortArray.elementAt(index: Int): Short
{\n  return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size\")
}\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is
out of bounds of this array.\n *\n * @sample samples.collections.Collections.Elements.elementAt\n *\npublic
actual fun IntArray.elementAt(index: Int): Int {\n  return elementAtOrElse(index) { throw
IndexOutOfBoundsException(\"index: $index, size: $size\") }\n}\n\n/**\n
*\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of
bounds of this array.\n *\n * @sample samples.collections.Collections.Elements.elementAt\n *\npublic actual fun
LongArray.elementAt(index: Int): Long {\n  return elementAtOrElse(index) { throw
IndexOutOfBoundsException(\"index: $index, size: $size\") }\n}\n\n/**\n * Returns an element at the given
[index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n *\n * @sample
samples.collections.Collections.Elements.elementAt\n *\npublic actual fun FloatArray.elementAt(index: Int): Float
{\n  return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size\")
}\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is

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out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n * \n\npublic
actual fun DoubleArray.elementAt(index:
Int): Double {\n    return elementAtOrElse(index) { throw IndexOutOfBoundsException("index: $index, size:
$size}") }\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the
[index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n * \n\npublic actual fun BooleanArray.elementAt(index: Int): Boolean {\n    return elementAtOrElse(index) { throw
IndexOutOfBoundsException("index: $index, size: $size}") }\n}\n\n/**\n * Returns an element at the given
[index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAt\n * \n\npublic actual fun CharArray.elementAt(index: Int): Char
{\n    return elementAtOrElse(index) { throw IndexOutOfBoundsException("index: $index, size: $size") }\n
}\n}\n\n/**\n * Returns a [List] that wraps the original array.\n * \n\npublic actual fun <T> Array<out T>.asList():
List<T> {\n    return ArrayList<T>(this.unsafeCast<Array<Any?>>())\n}\n\n/**\n * Returns a [List] that wraps the
original array.\n * \n\n@kotlin.internal.InlineOnly\npublic actual inline fun ByteArray.asList(): List<Byte> {\n
return this.unsafeCast<Array<Byte>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n
*\n\n@kotlin.internal.InlineOnly\npublic actual inline fun ShortArray.asList(): List<Short> {\n    return
this.unsafeCast<Array<Short>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n
*\n\n@kotlin.internal.InlineOnly\npublic actual inline fun IntArray.asList(): List<Int> {\n    return
this.unsafeCast<Array<Int>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n
*\n\n@kotlin.internal.InlineOnly\npublic actual inline fun LongArray.asList(): List<Long> {\n    return
this.unsafeCast<Array<Long>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n
*\n\n@kotlin.internal.InlineOnly\npublic
actual inline fun FloatArray.asList(): List<Float> {\n    return this.unsafeCast<Array<Float>>().asList()\n}\n\n/**\n
* Returns a [List] that wraps the original array.\n * \n\n@kotlin.internal.InlineOnly\npublic actual inline fun
DoubleArray.asList(): List<Double> {\n    return this.unsafeCast<Array<Double>>().asList()\n}\n\n/**\n * Returns
a [List] that wraps the original array.\n * \n\n@kotlin.internal.InlineOnly\npublic actual inline fun
BooleanArray.asList(): List<Boolean> {\n    return this.unsafeCast<Array<Boolean>>().asList()\n}\n\n/**\n *
Returns a [List] that wraps the original array.\n * \n\npublic actual fun CharArray.asList(): List<Char> {\n    return
object : AbstractList<Char>(), RandomAccess {\n        override val size: Int get() = this@asList.size\n        override
fun isEmpty(): Boolean = this@asList.isEmpty()\n        override fun contains(element: Char): Boolean =
this@asList.contains(element)\n        override fun get(index: Int): Char {\n
AbstractList.checkElementIndex(index,
size)\n        return this@asList[index]\n    }\n    override fun indexOf(element: Char): Int {\n
@Suppress("USELESS_CAST")\n        if ((element as Any?) !is Char) return -1\n        return
this@asList.indexOf(element)\n    }\n    override fun lastIndexOf(element: Char): Int {\n
@Suppress("USELESS_CAST")\n        if ((element as Any?) !is Char) return -1\n        return
this@asList.lastIndexOf(element)\n    }\n}\n}\n\n/**\n * Returns `true` if the two specified arrays are *deeply*
equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * If two
corresponding elements are nested arrays, they are also compared deeply.\n * If any of arrays contains itself on any
nesting level the behavior is undefined.\n * \n * The elements of other types are compared for equality with the
[equals][Any.equals] function.\n * For floating point numbers it means that `NaN`
is equal to itself and `-0.0` is not equal to `0.0`.\n
*\n\n@SinceKotlin("1.1")\n@kotlin.internal.LowPriorityInOverloadResolution\npublic actual infix fun <T>
Array<out T>.contentDeepEquals(other: Array<out T>): Boolean {\n    return
this.contentDeepEquals(other)\n}\n}\n\n/**\n * Returns `true` if the two specified arrays are *deeply* equal to one
another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The specified arrays are
also considered deeply equal if both are `null`.\n * \n * If two corresponding elements are nested arrays, they are
also compared deeply.\n * If any of arrays contains itself on any nesting level the behavior is undefined.\n * \n *
The elements of other types are compared for equality with the [equals][Any.equals] function.\n * For floating point

```

numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n

```
*\n@SinceKotlin("1.4")\n@library("arrayDeepEquals")\npublic actual infix fun <T> Array<out T>?.contentDeepEquals(other: Array<out T>?): Boolean {\n    definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n * Nested arrays are treated as lists too.\n * \n * If any of arrays contains itself on any nesting level the behavior is undefined.\n */\n\n*\n@SinceKotlin("1.1")\n@kotlin.internal.LowPriorityInOverloadResolution\npublic actual fun <T> Array<out T>.contentDeepHashCode(): Int {\n    return this.contentDeepHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n * Nested arrays are treated as lists too.\n * \n * If any of arrays contains itself on any nesting level the behavior is undefined.\n */\n\n*\n@SinceKotlin("1.4")\n@library("arrayDeepHashCode")\npublic actual fun <T> Array<out T>?.contentDeepHashCode(): Int {\n    definedExternally\n}\n\n/**\n * Returns a string representation of the contents of this array as if it is a [List].\n * Nested arrays are treated as lists too.\n * \n * If any of arrays contains itself on any nesting level that reference\n * is rendered as `"[...]"` to prevent recursion.\n * \n * @sample samples.collections.Arrays.ContentOperations.contentDeepToString\n */\n\n*\n@SinceKotlin("1.1")\n@kotlin.internal.LowPriorityInOverloadResolution\npublic actual fun <T> Array<out T>.contentDeepToString(): String {\n    return this.contentDeepToString()\n}\n\n/**\n * Returns a string representation of the contents of this array as if it is a [List].\n * Nested arrays are treated as lists too.\n * \n * If any of arrays contains itself on any nesting level that reference\n * is rendered as `"[...]"` to prevent recursion.\n * \n * @sample samples.collections.Arrays.ContentOperations.contentDeepToString\n */\n\n*\n@SinceKotlin("1.4")\n@library("arrayDeepToString")\npublic actual fun <T> Array<out T>?.contentDeepToString(): String {\n    definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * \n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n\n*\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual infix fun <T> Array<out T>.contentEquals(other: Array<out T>): Boolean {\n    return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * \n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n\n*\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual infix fun ByteArray.contentEquals(other: ByteArray): Boolean {\n    return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * \n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n\n*\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual infix fun ShortArray.contentEquals(other: ShortArray): Boolean {\n    return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * \n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n\n*\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual infix fun IntArray.contentEquals(other: IntArray): Boolean {\n    return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * \n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals]
```

function.  
 \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.  
 \*  
 @Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")  
 @SinceKotlin("1.1")  
 @DeprecatedSinceKotlin(hiddenSince = "1.4")  
 public actual infix fun LongArray.contentEquals(other: LongArray): Boolean  
 {  
   return this.contentEquals(other)  
 }  
 Returns `true` if the two specified arrays are *structurally* equal to one another, i.e. contain the same number of the same elements in the same order.  
 \* The elements are compared for equality with the [equals][Any.equals] function.  
 \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.  
 \*  
 @Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")  
 @SinceKotlin("1.1")  
 @DeprecatedSinceKotlin(hiddenSince = "1.4")  
 public actual infix fun FloatArray.contentEquals(other: FloatArray): Boolean  
 {  
   return this.contentEquals(other)  
 }  
 Returns `true` if the two specified arrays are *structurally* equal to one another, i.e. contain the same number of the same elements in the same order.  
 \* The elements are compared for equality with the [equals][Any.equals] function.  
 \* For floating point numbers it means that `NaN` is equal to itself and  
 `-0.0` is not equal to `0.0`.  
 \*  
 @Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")  
 @SinceKotlin("1.1")  
 @DeprecatedSinceKotlin(hiddenSince = "1.4")  
 public actual infix fun DoubleArray.contentEquals(other: DoubleArray): Boolean  
 {  
   return this.contentEquals(other)  
 }  
 Returns `true` if the two specified arrays are *structurally* equal to one another, i.e. contain the same number of the same elements in the same order.  
 \* The elements are compared for equality with the [equals][Any.equals] function.  
 \* For floating point numbers it means that `NaN` is equal to itself and  
 `-0.0` is not equal to `0.0`.  
 \*  
 @Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")  
 @SinceKotlin("1.1")  
 @DeprecatedSinceKotlin(hiddenSince = "1.4")  
 public actual infix fun BooleanArray.contentEquals(other: BooleanArray): Boolean  
 {  
   return this.contentEquals(other)  
 }  
 Returns `true` if the two specified arrays are *structurally* equal to one another, i.e. contain the same number of the same elements in the same order.  
 \* The elements are compared for equality with the [equals][Any.equals] function.  
 \* For floating point numbers it means that `NaN` is equal to itself and  
 `-0.0` is not equal to `0.0`.  
 \*  
 @Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")  
 @SinceKotlin("1.1")  
 @DeprecatedSinceKotlin(hiddenSince = "1.4")  
 public actual infix fun CharArray.contentEquals(other: CharArray): Boolean  
 {  
   return this.contentEquals(other)  
 }  
 Returns `true` if the two specified arrays are *structurally* equal to one another, i.e. contain the same number of the same elements in the same order.  
 \* The elements are compared for equality with the [equals][Any.equals] function.  
 \* For floating point numbers it means that `NaN` is equal to itself and  
 `-0.0` is not equal to `0.0`.  
 \*  
 @SinceKotlin("1.4")  
 @library("arrayEquals")  
 public actual infix fun <T> Array<out T>?.contentEquals(other: Array<out T>?): Boolean  
 {  
   definedExternally  
 }  
 Returns `true` if the two specified arrays are *structurally* equal to one another, i.e. contain the same number of the same elements in the same order.  
 \* The elements are compared for equality with the [equals][Any.equals] function.  
 \* For floating point numbers it means that `NaN` is equal to itself and  
 `-0.0` is not equal to `0.0`.  
 \*  
 @SinceKotlin("1.4")  
 @library("arrayEquals")  
 public actual infix fun ByteArray?.contentEquals(other: ByteArray?): Boolean  
 {  
   definedExternally  
 }  
 Returns `true` if the two specified arrays are *structurally* equal to one another, i.e. contain the same number of the same elements in the same order.  
 \* The elements are compared for equality with the [equals][Any.equals] function.  
 \* For floating point numbers it means that `NaN` is equal to itself and  
 `-0.0` is not equal to `0.0`.  
 \*  
 @SinceKotlin("1.4")  
 @library("arrayEquals")  
 public actual infix fun ShortArray?.contentEquals(other: ShortArray?): Boolean  
 {  
   definedExternally  
 }  
 Returns `true` if the two specified arrays are *structurally* equal to one another, i.e. contain the same number of the same elements in the same order.  
 \* The elements are compared for equality with the [equals][Any.equals] function.  
 \* For floating point numbers it means that `NaN` is equal to itself and  
 `-0.0` is not equal to `0.0`.  
 \*  
 @SinceKotlin("1.4")  
 @library("arrayEquals")  
 public actual infix fun IntArray?.contentEquals(other: IntArray?): Boolean  
 {  
   definedExternally  
 }  
 Returns `true` if the two specified arrays are

```

*structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n
* The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it
means that `NaN` is equal to itself and `-0.0` is not equal
to `0.0`.\n */\n@SinceKotlin("1.4")\n@library("arrayEquals")\npublic actual infix fun
LongArray?.contentEquals(other: LongArray?): Boolean {\n    definedExternally\n}\n\n/**\n * Returns `true` if the
two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements
in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For
floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
*/\n@SinceKotlin("1.4")\n@library("arrayEquals")\npublic actual infix fun FloatArray?.contentEquals(other:
FloatArray?): Boolean {\n    definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are
*structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n
* The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it
means that `NaN`
is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin("1.4")\n@library("arrayEquals")\npublic
actual infix fun DoubleArray?.contentEquals(other: DoubleArray?): Boolean {\n    definedExternally\n}\n\n/**\n *
Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of
the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals]
function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
*/\n@SinceKotlin("1.4")\n@library("arrayEquals")\npublic actual infix fun BooleanArray?.contentEquals(other:
BooleanArray?): Boolean {\n    definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are
*structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n
* The elements are compared for equality with the [equals][Any.equals] function.\n
* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
*/\n@SinceKotlin("1.4")\n@library("arrayEquals")\npublic actual infix fun CharArray?.contentEquals(other:
CharArray?): Boolean {\n    definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array
as if it is [List].\n */\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation
warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual fun <T>
Array<out T>.contentHashCode(): Int {\n    return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based
on the contents of this array as if it is [List].\n */\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation
warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual fun
ByteArray.contentHashCode(): Int {\n    return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on
the contents of this array as
if it is [List].\n */\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation
warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual fun
ShortArray.contentHashCode(): Int {\n    return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on
the contents of this array as if it is [List].\n */\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation
warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual fun
IntArray.contentHashCode(): Int {\n    return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on
the contents of this array as if it is [List].\n */\n@Deprecated("Use
Kotlin compiler 1.4 to avoid deprecation
warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual fun
LongArray.contentHashCode(): Int {\n    return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based
on the contents of this array as if it is [List].\n */\n@Deprecated("Use
Kotlin compiler 1.4 to avoid deprecation
warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual fun
FloatArray.contentHashCode(): Int {\n    return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on
the contents of this array as if it is [List].\n */\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation
warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual fun
DoubleArray.contentHashCode(): Int {\n    return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based

```





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samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\\"Use Kotlin compiler 1.4 to
avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic
actual fun FloatArray.contentToString(): String {\n    return this.contentToString()\n}\n\n/**\n * Returns a string
representation of the contents of the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\\"Use
Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun
DoubleArray.contentToString(): String {\n    return this.contentToString()\n}\n\n/**\n * Returns a string
representation of the contents of the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\\"Use Kotlin compiler 1.4 to
avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic
actual fun BooleanArray.contentToString(): String {\n    return this.contentToString()\n}\n\n/**\n * Returns a string
representation of the contents of the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\\"Use Kotlin compiler 1.4 to
avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic
actual fun CharArray.contentToString():
String {\n    return this.contentToString()\n}\n\n/**\n * Returns a string representation of the
contents of the
specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun <T> Array<out T>?.contentToString():
String {\n    definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as
if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun ByteArray?.contentToString(): String
{\n    definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is
[List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun ShortArray?.contentToString():
String {\n    definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as
if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun IntArray?.contentToString(): String {\n
definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is
[List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun LongArray?.contentToString(): String
{\n    definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is
[List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun FloatArray?.contentToString(): String
{\n    definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun DoubleArray?.contentToString(): String
{\n    definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is
[List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun BooleanArray?.contentToString():
String {\n    definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as
if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun CharArray?.contentToString(): String
{\n    definedExternally\n}\n\n/**\n * Copies this array or
its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the
[destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param
destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by

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default. \n \* @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default. \n \* @param endIndex the end (exclusive) of the subrange to copy, size of this array by default. \n \* \n \* @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`. \n \* @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset], \n \* or when that index is out of the [destination] array indices range. \n \* \n \* @return the [destination] array. \n

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*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
    actual inline fun <T> Array<out T>.copyInto(destination: Array<T>, destinationOffset: Int = 0, startIndex: Int = 0,
    endIndex: Int = size): Array<T> {\n    arrayCopy(this, destination, destinationOffset, startIndex, endIndex)\n    return destination\n}\n\n/**
    * Copies this array or its subrange into the [destination] array and returns that array. \n
    * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with
    the destination range. \n * \n * @param destination the array to copy to. \n * @param destinationOffset the position in
    the [destination] array to copy to, 0 by default. \n * @param startIndex the beginning (inclusive) of the subrange to
    copy, 0 by default. \n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default. \n
    * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex]
    or [endIndex] is out of range of this array indices or when `startIndex > endIndex`. \n * @throws
    IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified
    [destinationOffset], \n * or when that index is out of the [destination] array indices range. \n * \n * @return the
    [destination] array. \n
    */\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic actual inline fun ByteArray.copyInto(destination: ByteArray, destinationOffset: Int = 0,
    startIndex: Int = 0, endIndex: Int = size): ByteArray {\n    arrayCopy(this.unsafeCast<Array<Byte>>(),
    destination.unsafeCast<Array<Byte>>(), destinationOffset, startIndex, endIndex)\n    return destination\n}\n\n/**
    * Copies this array or its subrange into the [destination] array and returns that array. \n
    * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination
    range. \n * \n * @param destination the array to copy to. \n * @param destinationOffset the position in the
    [destination] array to copy to, 0 by default. \n * @param startIndex the beginning (inclusive) of the subrange to copy,
    0 by default. \n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default. \n * \n *
    @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of
    range of this array indices or when `startIndex > endIndex`. \n * @throws IndexOutOfBoundsException when the
    subrange doesn't fit into the [destination] array starting at the specified [destinationOffset], \n * or when that index is
    out of the [destination] array indices range. \n * \n * @return the [destination] array. \n
    */\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic actual inline fun ShortArray.copyInto(destination: ShortArray, destinationOffset: Int =
    0, startIndex: Int =
    0, endIndex: Int = size): ShortArray {\n    arrayCopy(this.unsafeCast<Array<Short>>(),
    destination.unsafeCast<Array<Short>>(), destinationOffset, startIndex, endIndex)\n    return destination\n}\n\n/**
    * Copies this array or its subrange into the [destination] array and returns that array. \n
    * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range. \n * \n *
    @param destination the array to copy to. \n * @param destinationOffset the position in the [destination] array to
    copy to, 0 by default. \n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default. \n *
    @param endIndex the end (exclusive) of the subrange to copy, size of this array by default. \n * \n * @throws
    IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this
    array indices or when `startIndex > endIndex`. \n * @throws IndexOutOfBoundsException when the subrange
    doesn't
    fit into the [destination] array starting at the specified [destinationOffset], \n * or when that index is out of the
    [destination] array indices range. \n * \n * @return the [destination] array. \n
    */

```

```

*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic actual inline fun IntArray.copyInto(destination: IntArray, destinationOffset: Int = 0,
startIndex: Int = 0, endIndex: Int = size): IntArray {\n    arrayCopy(this.unsafeCast<Array<Int>>(),
destination.unsafeCast<Array<Int>>(), destinationOffset, startIndex, endIndex)\n    return destination}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * \n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n\n*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic actual inline fun LongArray.copyInto(destination: LongArray, destinationOffset: Int = 0,
startIndex: Int = 0, endIndex: Int = size): LongArray {\n    arrayCopy(this.unsafeCast<Array<Long>>(),
destination.unsafeCast<Array<Long>>(), destinationOffset, startIndex,
endIndex)\n    return destination}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n\n*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic actual inline fun FloatArray.copyInto(destination: FloatArray, destinationOffset: Int = 0,
startIndex: Int = 0, endIndex: Int = size): FloatArray {\n    arrayCopy(this.unsafeCast<Array<Float>>(),
destination.unsafeCast<Array<Float>>(), destinationOffset, startIndex, endIndex)\n    return destination}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n\n*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic actual inline fun DoubleArray.copyInto(destination: DoubleArray, destinationOffset: Int = 0,
startIndex: Int = 0, endIndex: Int = size): DoubleArray {\n    arrayCopy(this.unsafeCast<Array<Double>>(),
destination.unsafeCast<Array<Double>>(), destinationOffset, startIndex, endIndex)\n    return destination}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n *

```

\n \* It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n \* \n \* @param destination the array to copy to.\n \* @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n \* @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n \* @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n \* \n \* @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n \* @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n \* or when that index is out of the [destination] array indices range.\n \* \n \* @return the [destination] array.\n

```
*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
```

```
actual inline fun BooleanArray.copyInto(destination: BooleanArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): BooleanArray {\n    arrayCopy(this.unsafeCast<Array<Boolean>>(),\n    destination.unsafeCast<Array<Boolean>>(), destinationOffset, startIndex, endIndex)\n    return
```

```
destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n *
```

It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n \* \n \* @param destination the array to copy to.\n \* @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n \* @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n \* @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n \* \n \*

@throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or

[endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n \* @throws

IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified

[destinationOffset],\n \* or when that index is out of the [destination] array indices range.\n \* \n \* @return the

[destination] array.\n

```
*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic actual inline fun CharArray.copyInto(destination: CharArray, destinationOffset: Int = 0,
```

```
startIndex: Int = 0, endIndex: Int = size): CharArray {\n    arrayCopy(this.unsafeCast<Array<Char>>(),
```

```
destination.unsafeCast<Array<Char>>(), destinationOffset, startIndex, endIndex)\n    return destination\n}\n\n/**\n
```

```
* Returns new array which is a copy of the original array.\n * \n * @sample
```

```
samples.collections.Arrays.CopyOfOperations.copyOfOf\n * \n @Suppress("ACTUAL_WITHOUT_EXPECT",
```

```
"NOTHING_TO_INLINE")\npublic actual inline fun <T> Array<out
```

```
T>.copyOf(): Array<T> {\n    return this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of
```

```
the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOfOf\n
```

```
*\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline fun ByteArray.copyOfOf(): ByteArray {\n    return
```

```
this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample
```

```
samples.collections.Arrays.CopyOfOperations.copyOfOf\n * \n @Suppress("NOTHING_TO_INLINE")\npublic
```

```
actual inline fun ShortArray.copyOfOf(): ShortArray {\n    return this.asDynamic().slice()\n}\n\n/**\n * Returns new
```

```
array which is a copy of the original array.\n * \n * @sample
```

```
samples.collections.Arrays.CopyOfOperations.copyOfOf\n * \n @Suppress("NOTHING_TO_INLINE")\npublic
```

```
actual inline fun IntArray.copyOfOf(): IntArray {\n    return this.asDynamic().slice()\n}\n\n/**\n * Returns new array
```

```
which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOfOf\n
```

```
*\npublic actual fun LongArray.copyOfOf(): LongArray {\n    return withType("LongArray",
```

```
this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample
```

```
samples.collections.Arrays.CopyOfOperations.copyOfOf\n * \n @Suppress("NOTHING_TO_INLINE")\npublic
```

```
actual inline fun FloatArray.copyOfOf(): FloatArray {\n    return this.asDynamic().slice()\n}\n\n/**\n * Returns new
```

```
array which is a copy of the original array.\n * \n * @sample
```

```
samples.collections.Arrays.CopyOfOperations.copyOfOf\n * \n @Suppress("NOTHING_TO_INLINE")\npublic
```

```
actual inline fun DoubleArray.copyOfOf(): DoubleArray {\n    return this.asDynamic().slice()\n}\n\n/**\n * Returns
```

```
new array which is a copy of the original array.\n * \n * @sample
```

```

samples.collections.Arrays.CopyOfOperations.copyOfOf\n *\npublic actual fun BooleanArray.copyOf():
BooleanArray {\n  return withType(\\"BooleanArray\\", this.asDynamic().slice())\n}\n\n/**\n * Returns new array
which is a copy
of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOfOf\n *\npublic actual
fun CharArray.copyOf(): CharArray {\n  return withType(\\"CharArray\\", this.asDynamic().slice())\n}\n\n/**\n *
Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either
truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the
original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the
original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample
samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n *\npublic actual fun
ByteArray.copyOf(newSize: Int): ByteArray {\n  require(newSize >= 0) { \\"Invalid new array size: $newSize.\\
"}\n  return fillFrom(this, ByteArray(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original
array, resized to the
given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If
[newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize]
is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n *
\n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n *\npublic actual fun
ShortArray.copyOf(newSize: Int): ShortArray {\n  require(newSize >= 0) { \\"Invalid new array size: $newSize.\\
"}\n  return fillFrom(this, ShortArray(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original
array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if
necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the
[newSize].\n * - If [newSize] is greater than the size of the original array, the extra
elements in the copy array are filled with zero values.\n * \n * @sample
samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n *\npublic actual fun
IntArray.copyOf(newSize: Int): IntArray {\n  require(newSize >= 0) { \\"Invalid new array size: $newSize.\\
"}\n  return fillFrom(this, IntArray(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original array,
resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n
* \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n *
- If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with
zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n *\npublic actual
fun LongArray.copyOf(newSize: Int): LongArray {\n  require(newSize >= 0) { \\"Invalid new array size:
$newSize.\\
"}\n  return withType(\\"LongArray\\",
arrayCopyResize(this, newSize, 0L))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized
to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n *
- If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If
[newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero
values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n *\npublic actual fun
FloatArray.copyOf(newSize: Int): FloatArray {\n  require(newSize >= 0) { \\"Invalid new array size: $newSize.\\
"}\n  return fillFrom(this, FloatArray(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original
array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if
necessary.\n * \n * - If [newSize] is less than the size of the
original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the
original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample
samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n *\npublic actual fun
DoubleArray.copyOf(newSize: Int): DoubleArray {\n  require(newSize >= 0) { \\"Invalid new array size:
$newSize.\\
"}\n  return fillFrom(this, DoubleArray(newSize))\n}\n\n/**\n * Returns new array which is a copy of
the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with `false`
values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated
to the

```

```

[newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are
filled with `false` values.\n * \n * @sample
samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n *\npublic
actual fun BooleanArray.copyOf(newSize: Int): BooleanArray {\n  require(newSize >= 0) { \"Invalid new array
size: $newSize.\" }\n  return withType(\"BooleanArray\", arrayCopyResize(this, newSize, false))\n}\n\n/**\n *
Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either
truncated or padded at the end with null char (`\u0000`) values if necessary.\n * \n * - If [newSize] is less than the
size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of
the original array, the extra elements in the copy array are filled with null char (`\u0000`) values.\n * \n * @sample
samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n *\npublic actual fun
CharArray.copyOf(newSize: Int): CharArray {\n  require(newSize >= 0) { \"Invalid new array size: $newSize.\"
}\n  return withType(\"CharArray\", fillFrom(this, CharArray(newSize)))\n}\n\n/**\n * Returns
new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or
padded at the end with `null` values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the
copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra
elements in the copy array are filled with `null` values.\n * \n * @sample
samples.collections.Arrays.CopyOfOperations.resizingCopyOf\n
*\n@Suppress(\"ACTUAL_WITHOUT_EXPECT\")\npublic actual fun <T> Array<out T>.copyOf(newSize: Int):
Array<T?> {\n  require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n  return arrayCopyResize(this,
newSize, null)\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n
*\n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive)
to copy.\n * \n * @throws IndexOutOfBoundsException if
[fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws
IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
*\n@Suppress(\"ACTUAL_WITHOUT_EXPECT\")\npublic actual fun <T> Array<out
T>.copyOfRange(fromIndex: Int, toIndex: Int): Array<T> {\n  AbstractList.checkRangeIndexes(fromIndex,
toIndex, size)\n  return this.asDynamic().slice(fromIndex, toIndex)\n}\n\n/**\n * Returns a new array which is a
copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to
copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException
if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws
IllegalArgumentException if [fromIndex] is greater than [toIndex].\n *\npublic actual fun
ByteArray.copyOfRange(fromIndex: Int, toIndex: Int): ByteArray {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n
return this.asDynamic().slice(fromIndex, toIndex)\n}\n\n/**\n * Returns a new array which is a copy of the
specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n *
@param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if
[fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws
IllegalArgumentException if [fromIndex] is greater than [toIndex].\n *\npublic actual fun
ShortArray.copyOfRange(fromIndex: Int, toIndex: Int): ShortArray {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n  return this.asDynamic().slice(fromIndex,
toIndex)\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n
*\n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to
copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero
or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater
than [toIndex].\n *\npublic actual fun IntArray.copyOfRange(fromIndex: Int, toIndex: Int): IntArray {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n  return this.asDynamic().slice(fromIndex,
toIndex)\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n
*\n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to

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copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the
size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n *\npublic
actual fun LongArray.copyOfRange(fromIndex: Int, toIndex: Int): LongArray {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    return withType("LongArray",
this.asDynamic().slice(fromIndex, toIndex))\n}\n\n/**\n
 * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the
start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n *
@throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this
array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n *\npublic actual fun
FloatArray.copyOfRange(fromIndex: Int, toIndex: Int): FloatArray {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    return this.asDynamic().slice(fromIndex,
toIndex)\n}\n\n/**\n
 * Returns a new array which is a copy of the specified range of the original array.\n * \n *
@param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to
copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the
size of this array.\n
 * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n *\npublic actual fun
DoubleArray.copyOfRange(fromIndex: Int, toIndex: Int): DoubleArray {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    return this.asDynamic().slice(fromIndex,
toIndex)\n}\n\n/**\n
 * Returns a new array which is a copy of the specified range of the original array.\n * \n *
@param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to
copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the
size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n *\npublic
actual fun BooleanArray.copyOfRange(fromIndex: Int, toIndex: Int): BooleanArray {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    return withType("BooleanArray",
this.asDynamic().slice(fromIndex, toIndex))\n}\n\n/**\n
 * Returns a new array which
is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to
copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException
if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws
IllegalArgumentException if [fromIndex] is greater than [toIndex].\n *\npublic actual fun
CharArray.copyOfRange(fromIndex: Int, toIndex: Int): CharArray {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    return withType("CharArray",
this.asDynamic().slice(fromIndex, toIndex))\n}\n\n/**\n
 * Fills this array or its subrange with the specified
[element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param
toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws
IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size
of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
*\npublic
actual fun <T> Array<T>.fill(element: T, fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    this.asDynamic().fill(element, fromIndex,
toIndex);\n}\n\n/**\n
 * Fills this array or its subrange with the specified [element] value.\n * \n *
@param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive)
to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero
or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater
than [toIndex].\n
*\npublic
actual fun ByteArray.fill(element: Byte, fromIndex:
Int = 0, toIndex: Int = size): Unit {\n    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n
this.asDynamic().fill(element, fromIndex, toIndex);\n}\n\n/**\n
 * Fills this array or its subrange with the specified

```

```

[element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param
toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws
IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n *
@throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
*\n@SinceKotlin("1.3")\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
actual fun ShortArray.fill(element: Short, fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    this.asDynamic().fill(element, fromIndex,
toIndex);\n}\n\n/**\n * Fills this array or its subrange with the specified
[element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param
toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws
IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n *
@throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
*\n@SinceKotlin("1.3")\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
actual fun IntArray.fill(element: Int, fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    this.asDynamic().fill(element, fromIndex,
toIndex);\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param
fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive)
to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException
if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws
IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
*\n@SinceKotlin("1.3")\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
actual fun LongArray.fill(element: Long, fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    this.asDynamic().fill(element, fromIndex,
toIndex);\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param
fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive)
to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero
or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater
than [toIndex].\n
*\n@SinceKotlin("1.3")\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
actual fun FloatArray.fill(element: Float, fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    this.asDynamic().fill(element, fromIndex,
toIndex);\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param
fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive)
to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero
or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater
than [toIndex].\n
*\n@SinceKotlin("1.3")\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
actual fun DoubleArray.fill(element: Double, fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    this.asDynamic().fill(element, fromIndex,
toIndex);\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param
fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive)
to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero
or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater
than [toIndex].\n
*\n@SinceKotlin("1.3")\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
actual fun BooleanArray.fill(element: Boolean, fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    this.asDynamic().fill(element, fromIndex,
toIndex);\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param

```



fromIndex the start of the range (inclusive) to fill, 0 by default.\n \* @param toIndex the end of the range (exclusive) to

fill, size of this array by default.\n \* \n \* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n

```

*\n@SinceKotlin("1.3")\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
actual fun CharArray.fill(element: Char, fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n this.asDynamic().fill(element, fromIndex,
toIndex);\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n
*\n@Suppress("ACTUAL_WITHOUT_EXPECT", "NOTHING_TO_INLINE")\npublic actual inline operator
fun <T> Array<out T>.plus(element: T): Array<T> {\n return
this.asDynamic().concat(arrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original
array and then the given [element].\n *\n@Suppress("NOTHING_TO_INLINE")\npublic
actual inline operator fun ByteArray.plus(element: Byte): ByteArray {\n return
plus(byteArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the
given [element].\n *\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun
ShortArray.plus(element: Short): ShortArray {\n return plus(shortArrayOf(element))\n}\n\n/**\n * Returns an
array containing all elements of the original array and then the given [element].\n
*\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun IntArray.plus(element: Int):
IntArray {\n return plus(intArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the
original array and then the given [element].\n *\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline
operator fun LongArray.plus(element: Long): LongArray {\n return plus(longArrayOf(element))\n}\n\n/**\n *
Returns an array containing all elements of the original array and then the given
[element].\n *\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun
FloatArray.plus(element: Float): FloatArray {\n return plus(floatArrayOf(element))\n}\n\n/**\n * Returns an array
containing all elements of the original array and then the given [element].\n
*\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun DoubleArray.plus(element:
Double): DoubleArray {\n return plus(doubleArrayOf(element))\n}\n\n/**\n * Returns an array containing all
elements of the original array and then the given [element].\n *\n@Suppress("NOTHING_TO_INLINE")\npublic
actual inline operator fun BooleanArray.plus(element: Boolean): BooleanArray {\n return
plus(booleanArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then
the given [element].\n *\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun
CharArray.plus(element: Char): CharArray {\n return plus(charArrayOf(element))\n}\n\n/**\n * Returns
an array containing all elements of the original array and then all elements of the given [elements] collection.\n
*\n@Suppress("ACTUAL_WITHOUT_EXPECT")\npublic actual operator fun <T> Array<out T>.plus(elements:
Collection<T>): Array<T> {\n return arrayPlusCollection(this, elements)\n}\n\n/**\n * Returns an array
containing all elements of the original array and then all elements of the given [elements] collection.\n *\npublic
actual operator fun ByteArray.plus(elements: Collection<Byte>): ByteArray {\n return
fillFromCollection(this.copyOf(size + elements.size), this.size, elements)\n}\n\n/**\n * Returns an array containing
all elements of the original array and then all elements of the given [elements] collection.\n *\npublic actual
operator fun ShortArray.plus(elements: Collection<Short>): ShortArray {\n return
fillFromCollection(this.copyOf(size + elements.size), this.size, elements)\n}\n\n/**\n * Returns an array containing
all elements of the original array and
then all elements of the given [elements] collection.\n *\npublic actual operator fun IntArray.plus(elements:
Collection<Int>): IntArray {\n return fillFromCollection(this.copyOf(size + elements.size), this.size,
elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the
given [elements] collection.\n *\npublic actual operator fun LongArray.plus(elements: Collection<Long>):
LongArray {\n return arrayPlusCollection(this, elements)\n}\n\n/**\n * Returns an array containing all elements of

```

the original array and then all elements of the given [elements] collection.

```

public actual operator fun
FloatArray.plus(elements: Collection<Float>): FloatArray {
    return fillFromCollection(this.copyOf(size +
elements.size), this.size, elements)
}

```

\* Returns an array containing all elements of the original array and then all elements of the given [elements] collection.

```

public actual operator fun DoubleArray.plus(elements:
Collection<Double>): DoubleArray {
    return fillFromCollection(this.copyOf(size + elements.size), this.size,
elements)
}

```

\* Returns an array containing all elements of the original array and then all elements of the given [elements] collection.

```

public actual operator fun BooleanArray.plus(elements: Collection<Boolean>):
BooleanArray {
    return arrayPlusCollection(this, elements)
}

```

\* Returns an array containing all elements of the original array and then all elements of the given [elements] collection.

```

public actual operator fun CharArray.plus(elements: Collection<Char>): CharArray {
    return fillFromCollection(this.copyOf(size +
elements.size), this.size, elements)
}

```

\* Returns an array containing all elements of the original array and then all elements of the given [elements] array.

```

@Suppress("ACTUAL_WITHOUT_EXPECT",
"NOTHING_TO_INLINE")
public actual inline operator fun <T> Array<out T>.plus(elements: Array<out T>):
Array<T> {
    return this.asDynamic().concat(elements)
}

```

\* Returns an array containing all elements of the original array and then all elements of the given [elements] array.

```

@Suppress("NOTHING_TO_INLINE")
public actual inline operator fun ByteArray.plus(elements:
ByteArray): ByteArray {
    return primitiveArrayConcat(this, elements)
}

```

\* Returns an array containing all elements of the original array and then all elements of the given [elements] array.

```

@Suppress("NOTHING_TO_INLINE")
public actual inline operator fun ShortArray.plus(elements:
ShortArray): ShortArray {
    return primitiveArrayConcat(this, elements)
}

```

\* Returns an array containing all elements of the original array and then all elements of the given [elements] array.

```

@Suppress("NOTHING_TO_INLINE")
public actual inline operator fun IntArray.plus(elements: IntArray):
IntArray {
    return primitiveArrayConcat(this, elements)
}

```

\* Returns an array containing all elements of the original array and then all elements of the given [elements] array.

```

@Suppress("NOTHING_TO_INLINE")
public actual inline operator fun LongArray.plus(elements:
LongArray): LongArray {
    return primitiveArrayConcat(this, elements)
}

```

\* Returns an array containing all elements of the original array and then all elements of the given [elements] array.

```

@Suppress("NOTHING_TO_INLINE")
public actual inline operator fun FloatArray.plus(elements:
FloatArray): FloatArray {
    return primitiveArrayConcat(this, elements)
}

```

\* Returns an array containing all elements of the original array and then all elements of the given [elements] array.

```

@Suppress("NOTHING_TO_INLINE")
public actual inline operator fun DoubleArray.plus(elements:
DoubleArray): DoubleArray {
    return primitiveArrayConcat(this, elements)
}

```

\* Returns an array containing all elements of the original array and then all elements of the given [elements] array.

```

@Suppress("NOTHING_TO_INLINE")
public actual inline operator fun
BooleanArray.plus(elements: BooleanArray): BooleanArray {
    return primitiveArrayConcat(this,
elements)
}

```

\* Returns an array containing all elements of the original array and then all elements of the given [elements] array.

```

@Suppress("NOTHING_TO_INLINE")
public actual inline operator fun
CharArray.plus(elements: CharArray): CharArray {
    return primitiveArrayConcat(this, elements)
}

```

\* Returns an array containing all elements of the original array and then the given [element].

```

@Suppress("ACTUAL_WITHOUT_EXPECT", "NOTHING_TO_INLINE")
public actual inline fun <T>
Array<out T>.plusElement(element: T): Array<T> {
    return
this.asDynamic().concat(arrayOf(element))
}

```

\* Sorts the array in-place.

```

@sample
samples.collections.Arrays.Sorting.sortArray

```

```

@library("primitiveArraySort")
public actual fun
IntArray.sort(): Unit {
    definedExternally
}

```

\* Sorts the array in-place.

```

@sample
samples.collections.Arrays.Sorting.sortArray

```

```

public actual fun
LongArray.sort(): Unit {
    @Suppress("DEPRECATION")
    if (size > 1) sort { a: Long, b: Long ->
a.compareTo(b) }
}

```

\* Sorts the array in-place.

```

@sample
samples.collections.Arrays.Sorting.sortArray

```

```

@library("primitiveArraySort")
public actual fun

```

```

ByteArray.sort(): Unit {
    definedExternally
}

/**
 * Sorts the array in-place.
 *
 * @sample
 * samples.collections.Arrays.Sorting.sortArray
 */
@library("primitiveArraySort")
public actual fun
ShortArray.sort(): Unit {
    definedExternally
}

/**
 * Sorts the array in-place.
 *
 * @sample
 * samples.collections.Arrays.Sorting.sortArray
 */
@library("primitiveArraySort")
public actual fun
DoubleArray.sort(): Unit {
    definedExternally
}

/**
 * Sorts the array in-place.
 *
 * @sample
 * samples.collections.Arrays.Sorting.sortArray
 */
@library("primitiveArraySort")
public
actual fun
FloatArray.sort(): Unit {
    definedExternally
}

/**
 * Sorts the array in-place according to the natural order
 * of its elements.
 *
 * The sort is _stable_. It means that equal elements preserve their order relative to each other
 * after sorting.
 *
 * @sample
 * samples.collections.Arrays.Sorting.sortArrayOfComparable
 */
public actual fun
<T : Comparable<T>> Array<out T>.sort(): Unit {
    if (size > 1) sortArray(this)
}

/**
 * Sorts the array in-
 * place according to the order specified by the given [comparison] function.
 *
 * The sort is _stable_. It means that
 * equal elements preserve their order relative to each other after sorting.
 *
 * @deprecated("Use sortWith instead",
 * ReplaceWith("this.sortWith(Comparator(comparison))"))
 */
@DeprecatedSinceKotlin(warningSince
    = "1.6")
public fun <T> Array<out T>.sort(comparison: (a: T, b: T) -> Int): Unit {
    if (size > 1)
    sortArrayWith(this, comparison)
}

/**
 * Sorts a range in the array in-place.
 *
 * The sort is _stable_. It
 * means that equal elements preserve their order relative to each other after sorting.
 *
 * @param fromIndex the
 * start of the range (inclusive) to sort, 0 by default.
 *
 * @param toIndex the end of the range (exclusive) to sort, size
 * of this array by default.
 *
 * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex]
 * is greater than the size of this array.
 *
 * @throws IllegalArgumentException if [fromIndex] is greater than
 * [toIndex].
 *
 * @sample
 * samples.collections.Arrays.Sorting.sortRangeOfArrayOfComparable
 */
@SinceKotlin("1.4")
@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")
public
actual fun <T : Comparable<T>> Array<out T>.sort(fromIndex: Int = 0, toIndex: Int = size):
    Unit {
    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)
    sortArrayWith(this, fromIndex, toIndex,
    naturalOrder())
}

/**
 * Sorts a range in the array in-place.
 *
 * @param fromIndex the start of the range
 * (inclusive) to sort, 0 by default.
 *
 * @param toIndex the end of the range (exclusive) to sort, size of this array by
 * default.
 *
 * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than
 * the size of this array.
 *
 * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].
 *
 * @sample
 * samples.collections.Arrays.Sorting.sortRangeOfArray
 */
@SinceKotlin("1.4")
@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")
public
actual fun
ByteArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {
    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)
    val subarray =
    this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<ByteArray>()
    subarray.sort()
}

/**
 * Sorts a
 * range
 * in the array in-place.
 *
 * @param fromIndex the start of the range (inclusive) to sort, 0 by default.
 *
 * @param
 * toIndex the end of the range (exclusive) to sort, size of this array by default.
 *
 * @throws
 * IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.
 *
 * @throws
 * IllegalArgumentException if [fromIndex] is greater than [toIndex].
 *
 * @sample
 * samples.collections.Arrays.Sorting.sortRangeOfArray
 */
@SinceKotlin("1.4")
@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")
public
actual fun
ShortArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {
    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)
    val subarray =
    this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<ShortArray>()
    subarray.sort()
}

/**
 * Sorts a
 * range in the array in-place.
 *
 * @param fromIndex the start of the range (inclusive) to sort, 0 by default.
 *
 * @param
 * toIndex the end of the range (exclusive)
 * to sort, size of this array by default.
 *
 * @throws IndexOutOfBoundsException if [fromIndex] is less than zero
 * or [toIndex] is greater than the size of this array.
 *
 * @throws IllegalArgumentException if [fromIndex] is greater
 */

```

```

than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n
*\n@SinceKotlin("1.4")\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
actual fun IntArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    val subarray =
this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<IntArray>()\n    subarray.sort()\n}\n\n/**\n * Sorts a
range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n *
@param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws
IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size
of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample
samples.collections.Arrays.Sorting.sortRangeOfArray\n
*\n@SinceKotlin("1.4")\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
actual fun LongArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    sortArrayWith(this.unsafeCast<Array<Long>>(),
fromIndex, toIndex, naturalOrder())\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex
the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort,
size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or
[toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than
[toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n
*\n@SinceKotlin("1.4")\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
actual fun FloatArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    val subarray =
this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<FloatArray>()\n    subarray.sort()\n}\n\n/**\n * Sorts a
range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n *
@param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws
IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n *
@throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample
samples.collections.Arrays.Sorting.sortRangeOfArray\n
*\n@SinceKotlin("1.4")\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
actual fun DoubleArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    val subarray =
this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<DoubleArray>()\n    subarray.sort()\n}\n\n/**\n * Sorts
a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n *
@param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws
IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n *
@throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample
samples.collections.Arrays.Sorting.sortRangeOfArray\n
*\n@SinceKotlin("1.4")\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
actual fun CharArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    val subarray =
this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<CharArray>()\n    subarray.sort()\n}\n\n/**\n *
Sorts the array in-place according to the order specified by the given [comparison] function.\n
*\n@Deprecated("Use other sorting functions from the Standard
Library")\n@DeprecatedSinceKotlin(warningSince = "1.6")\n@kotlin.internal.InlineOnly\npublic inline fun
ByteArray.sort(noinline comparison: (a: Byte, b: Byte) -> Int): Unit {\n    asDynamic().sort(comparison)\n}\n\n/**\n
* Sorts the array in-place according to the order specified by the given [comparison] function.\n
*\n@Deprecated("Use other sorting functions from the Standard
Library")\n@DeprecatedSinceKotlin(warningSince = "1.6")\n@kotlin.internal.InlineOnly\npublic inline fun
ShortArray.sort(noinline comparison: (a: Short, b: Short) -> Int): Unit {\n

```

```

asDynamic().sort(comparison)\n\n/**\n * Sorts the array in-place according to the order specified by the given
[comparison] function.\n */\n@Deprecated("Use other sorting functions from the Standard
Library")\n@DeprecatedSinceKotlin(warningSince
= "1.6")\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.sort(noinline comparison: (a: Int, b: Int) -> Int):
Unit {\n  asDynamic().sort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by
the given [comparison] function.\n */\n@Deprecated("Use other sorting functions from the Standard
Library")\n@DeprecatedSinceKotlin(warningSince = "1.6")\n@kotlin.internal.InlineOnly\npublic inline fun
LongArray.sort(noinline comparison: (a: Long, b: Long) -> Int): Unit {\n
  asDynamic().sort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given
[comparison] function.\n */\n@Deprecated("Use other sorting functions from the Standard
Library")\n@DeprecatedSinceKotlin(warningSince = "1.6")\n@kotlin.internal.InlineOnly\npublic inline fun
FloatArray.sort(noinline comparison: (a: Float, b: Float) -> Int): Unit {\n
  asDynamic().sort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the
order specified by the given [comparison] function.\n */\n@Deprecated("Use other sorting functions from the
Standard Library")\n@DeprecatedSinceKotlin(warningSince = "1.6")\n@kotlin.internal.InlineOnly\npublic inline
fun DoubleArray.sort(noinline comparison: (a: Double, b: Double) -> Int): Unit {\n
  asDynamic().sort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given
[comparison] function.\n */\n@Deprecated("Use other sorting functions from the Standard
Library")\n@DeprecatedSinceKotlin(warningSince = "1.6")\n@kotlin.internal.InlineOnly\npublic inline fun
CharArray.sort(noinline comparison: (a: Char, b: Char) -> Int): Unit {\n
  asDynamic().sort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given
[comparator].\n */\n * The sort is _stable_. It means that equal elements preserve their order relative to each other
after sorting.\n */\npublic actual fun <T> Array<out T>.sortWith(comparator:
Comparator<in T>): Unit {\n  if (size > 1) sortArrayWith(this, comparator)\n}\n\n/**\n * Sorts a range in the array
in-place with the given [comparator].\n */\n * The sort is _stable_. It means that equal elements preserve their order
relative to each other after sorting.\n */\n * @param fromIndex the start of the range (inclusive) to sort, 0 by
default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * @throws
IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n *
@throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
*/\n@SinceKotlin("1.4")\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
actual fun <T> Array<out T>.sortWith(comparator: Comparator<in T>, fromIndex: Int = 0, toIndex: Int = size):
Unit {\n  AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n  sortArrayWith(this, fromIndex, toIndex,
comparator)\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n
*/\npublic actual fun
ByteArray.toTypedArray(): Array<Byte> {\n  return js("[]").slice.call(this)\n}\n\n/**\n * Returns a *typed*
object array containing all of the elements of this primitive array.\n */\npublic actual fun
ShortArray.toTypedArray(): Array<Short> {\n  return js("[]").slice.call(this)\n}\n\n/**\n * Returns a *typed*
object array containing all of the elements of this primitive array.\n */\npublic actual fun IntArray.toTypedArray():
Array<Int> {\n  return js("[]").slice.call(this)\n}\n\n/**\n * Returns a *typed* object array containing all of the
elements of this primitive array.\n */\npublic actual fun LongArray.toTypedArray(): Array<Long> {\n  return
js("[]").slice.call(this)\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive
array.\n */\npublic actual fun FloatArray.toTypedArray(): Array<Float> {\n  return
js("[]").slice.call(this)\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive
array.\n */\npublic actual fun
DoubleArray.toTypedArray(): Array<Double> {\n  return js("[]").slice.call(this)\n}\n\n/**\n * Returns a *typed*
object array containing all of the elements of this primitive array.\n */\npublic actual fun
BooleanArray.toTypedArray(): Array<Boolean> {\n  return js("[]").slice.call(this)\n}\n\n/**\n * Returns a
*typed* object array containing all of the elements of this primitive array.\n */\npublic actual fun

```

```

CharArray.toArray(): Array<Char> {
    return Array(size) { index -> this[index] }
}

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by the Apache 2.0 license that can be found in the license/LICENSE.txt file.

@file:kotlin.jvm.JvmName("ComparisonsKt")
@file:kotlin.jvm.JvmMultifileClass
package
kotlin.comparisons

Compares
two values using the specified functions [selectors] to calculate the result of the comparison.
The functions are
called sequentially, receive the given values [a] and [b] and return [Comparable]
objects. As soon as the
[Comparable] instances returned by a function for [a] and [b] values do not
compare as equal, the result of that
comparison is returned.

@sample samples.comparisons.Comparisons.compareValuesByWithSelectors

public fun <T> compareValuesBy(a: T, b: T, vararg selectors: (T) -> Comparable<*>?): Int {
    require(selectors.size > 0)
    return compareValuesByImpl(a, b, selectors)
}

private fun <T>
compareValuesByImpl(a: T, b: T, selectors: Array<out (T) -> Comparable<*>?): Int {
    for (fn in selectors) {
        val v1 = fn(a)
        val v2 = fn(b)
        val diff = compareValues(v1, v2)
        if (diff != 0) return diff
    }
    return 0
}

Compares two values using the specified [selector] function to calculate the
result of the comparison.
The function is applied to the given values [a] and [b] and return [Comparable]
objects.
The result of comparison of these [Comparable] instances is returned.

@sample
samples.comparisons.Comparisons.compareValuesByWithSingleSelector

@kotlin.internal.InlineOnly
public
inline fun <T> compareValuesBy(a: T, b: T, selector: (T) -> Comparable<*>?): Int {
    return
compareValues(selector(a), selector(b))
}

Compares two values using the specified [selector] function to
calculate the result of the comparison.
The function is applied to the given values [a] and [b] and return objects
of type K which are then being
compared with the given [comparator].

@sample
samples.comparisons.Comparisons.compareValuesByWithComparator

@kotlin.internal.InlineOnly
public
inline fun <T, K> compareValuesBy(a: T, b: T, comparator: Comparator<in K>, selector: (T) -> K): Int {
    return
comparator.compare(selector(a), selector(b))
}

Not so useful without type inference for receiver of expression
compareValuesWith(v1, v2, compareBy {
    it.prop1 } thenByDescending { it.prop2 })

Compares two values using the specified [comparator].

@Suppress("NOTHING_TO_INLINE")
public inline fun <T> compareValuesWith(a: T, b: T, comparator:
Comparator<T>): Int = comparator.compare(a, b)

Compares two nullable [Comparable] values. Null
is considered less than any value.

@sample samples.comparisons.Comparisons.compareValues

public
fun <T : Comparable<*>> compareValues(a: T?, b: T?): Int {
    if (a === b) return 0
    if (a == null) return -1
    if (b == null) return 1
    @Suppress("UNCHECKED_CAST")
    return (a as
Comparable<Any>).compareTo(b)
}

Creates a comparator using the sequence of functions to calculate a
result of comparison.
The functions are called sequentially, receive the given values `a` and `b` and return
[Comparable]
objects. As soon as the [Comparable] instances returned by a function for `a` and `b` values do not
compare as equal, the result of that
comparison is returned from the [Comparator].

@sample
samples.comparisons.Comparisons.compareByWithSelectors

public fun <T> compareBy(vararg selectors: (T)
-> Comparable<*>?): Comparator<T> {
    require(selectors.size > 0)
    return Comparator { a, b ->
compareValuesByImpl(a, b, selectors) }
}

Creates a comparator using the function to transform value
to a [Comparable] instance for comparison.

@sample
samples.comparisons.Comparisons.compareByWithSingleSelector

@kotlin.internal.InlineOnly
public inline
fun <T> compareBy(crossinline selector: (T) -> Comparable<*>?): Comparator<T> =
Comparator { a, b ->
compareValuesBy(a, b, selector) }

Creates a comparator using the [selector] function to transform values
being compared and then applying
the specified [comparator] to compare transformed
values.

@sample samples.comparisons.Comparisons.compareByWithComparator

@kotlin.internal.InlineOnly
public inline fun <T, K> compareBy(comparator: Comparator<in K>, crossinline
selector: (T) -> K): Comparator<T> =
Comparator { a, b -> compareValuesBy(a, b, comparator, selector)
}

Creates a descending comparator using the function to transform value to a [Comparable] instance for

```

```

comparison.\n *\n * @sample samples.comparisons.Comparisons.compareByDescendingWithSingleSelector\n
*\n@kotlin.internal.InlineOnly\npublic inline fun <T> compareByDescending(crossinline selector: (T) ->
Comparable<*>?): Comparator<T> =\n    Comparator { a, b -> compareValuesBy(b, a, selector) }\n\n/**\n *
Creates a descending comparator using the [selector] function to transform values being compared and then
applying\n * the specified [comparator] to compare transformed values.\n *\n * Note that an order of [comparator] is
reversed by this wrapper.\n *\n * @sample
samples.comparisons.Comparisons.compareByDescendingWithComparator\n
*\n@kotlin.internal.InlineOnly\npublic inline fun <T, K> compareByDescending(comparator: Comparator<in K>,
crossinline selector: (T) -> K): Comparator<T> =\n    Comparator { a, b -> compareValuesBy(b, a, comparator,
selector) }\n\n/**\n * Creates a comparator comparing values after the primary comparator defined them equal. It
uses\n * the function to transform value to a [Comparable] instance for comparison.\n *\n * @sample
samples.comparisons.Comparisons.thenBy\n *\n@kotlin.internal.InlineOnly\npublic inline fun <T>
Comparator<T>.thenBy(crossinline selector: (T) -> Comparable<*>?): Comparator<T> =\n    Comparator { a, b -
>\n        val previousCompare = this@thenBy.compare(a, b)\n        if (previousCompare != 0) previousCompare else
compareValuesBy(a, b, selector)\n    }\n\n/**\n * Creates a comparator comparing values after the primary
comparator defined them equal. It uses\n * the [selector] function to transform values
and then compares them with the given [comparator].\n *\n * @sample
samples.comparisons.Comparisons.thenByWithComparator\n *\n@kotlin.internal.InlineOnly\npublic inline fun <T,
K> Comparator<T>.thenBy(comparator: Comparator<in K>, crossinline selector: (T) -> K): Comparator<T> =\n
Comparator { a, b ->\n    val previousCompare = this@thenBy.compare(a, b)\n    if (previousCompare != 0)
previousCompare else compareValuesBy(a, b, comparator, selector)\n }\n\n/**\n * Creates a descending
comparator using the primary comparator and\n * the function to transform value to a [Comparable] instance for
comparison.\n *\n * @sample samples.comparisons.Comparisons.thenByDescending\n
*\n@kotlin.internal.InlineOnly\npublic inline fun <T> Comparator<T>.thenByDescending(crossinline selector: (T)
-> Comparable<*>?): Comparator<T> =\n    Comparator { a, b ->\n        val previousCompare =
this@thenByDescending.compare(a, b)\n        if (previousCompare != 0) previousCompare else
compareValuesBy(b,
a, selector)\n    }\n\n/**\n * Creates a descending comparator comparing values after the primary comparator
defined them equal. It uses\n * the [selector] function to transform values and then compares them with the given
[comparator].\n *\n * @sample samples.comparisons.Comparisons.thenByDescendingWithComparator\n
*\n@kotlin.internal.InlineOnly\npublic inline fun <T, K> Comparator<T>.thenByDescending(comparator:
Comparator<in K>, crossinline selector: (T) -> K): Comparator<T> =\n    Comparator { a, b ->\n        val
previousCompare = this@thenByDescending.compare(a, b)\n        if (previousCompare != 0) previousCompare else
compareValuesBy(b, a, comparator, selector)\n    }\n\n/**\n * Creates a comparator using the primary comparator
and function to calculate a result of comparison.\n *\n * @sample
samples.comparisons.Comparisons.thenComparator\n *\n@kotlin.internal.InlineOnly\npublic inline fun <T>
Comparator<T>.thenComparator(crossinline comparison: (a: T, b: T) -> Int):
Comparator<T> =\n    Comparator { a, b ->\n        val previousCompare = this@thenComparator.compare(a, b)\n
if (previousCompare != 0) previousCompare else comparison(a, b)\n    }\n\n/**\n * Combines this comparator and
the given [comparator] such that the latter is applied only\n * when the former considered values equal.\n *\n *
@sample samples.comparisons.Comparisons.then\n *\npublic infix fun <T> Comparator<T>.then(comparator:
Comparator<in T>): Comparator<T> =\n    Comparator { a, b ->\n        val previousCompare =
this@then.compare(a, b)\n        if (previousCompare != 0) previousCompare else comparator.compare(a, b)\n
}\n\n/**\n * Combines this comparator and the given [comparator] such that the latter is applied only\n * when the
former considered values equal.\n *\n * @sample samples.comparisons.Comparisons.thenDescending\n *\npublic
infix fun <T> Comparator<T>.thenDescending(comparator: Comparator<in T>): Comparator<T> =\n
Comparator<T> { a, b ->\n

```

```

    val previousCompare = this@thenDescending.compare(a, b)\n    if (previousCompare != 0) previousCompare
else comparator.compare(b, a)\n    }\n\n// Not so useful without type inference for receiver of expression\n/**\n * Extends the given [comparator] of non-nullable values to a comparator of nullable values\n * considering `null`
value less than any other value.\n *\n * @sample
samples.comparisons.Comparisons.nullsFirstLastWithComparator\n *\npublic fun <T : Any>
nullsFirst(comparator: Comparator<in T>): Comparator<T?> =\n    Comparator { a, b ->\n        when {\n            a
=== b -> 0\n            a == null -> -1\n            b == null -> 1\n            else -> comparator.compare(a, b)\n        }\n    }\n\n/**\n * Provides a comparator of nullable [Comparable] values\n * considering `null` value less than any other
value.\n *\n * @sample samples.comparisons.Comparisons.nullsFirstLastComparator\n
*\n@kotlin.internal.InlineOnly\npublic inline fun <T : Comparable<T>> nullsFirst():
Comparator<T?> = nullsFirst(naturalOrder())\n\n/**\n * Extends the given [comparator] of non-nullable values to a
comparator of nullable values\n * considering `null` value greater than any other value.\n *\n * @sample
samples.comparisons.Comparisons.nullsFirstLastWithComparator\n *\npublic fun <T : Any>
nullsLast(comparator: Comparator<in T>): Comparator<T?> =\n    Comparator { a, b ->\n        when {\n            a
=== b -> 0\n            a == null -> 1\n            b == null -> -1\n            else -> comparator.compare(a, b)\n        }\n    }\n\n/**\n * Provides a comparator of nullable [Comparable] values\n * considering `null` value greater than any
other value.\n *\n * @sample samples.comparisons.Comparisons.nullsFirstLastComparator\n
*\n@kotlin.internal.InlineOnly\npublic inline fun <T : Comparable<T>> nullsLast(): Comparator<T?> =
nullsLast(naturalOrder())\n\n/**\n * Returns a comparator that compares [Comparable] objects in natural order.\n
*\n * @sample samples.comparisons.Comparisons.naturalOrderComparator\n
*\npublic fun <T : Comparable<T>> naturalOrder(): Comparator<T> = @Suppress("UNCHECKED_CAST")
(NaturalOrderComparator as Comparator<T>)\n\n/**\n * Returns a comparator that compares [Comparable] objects
in reversed natural order.\n *\n * @sample samples.comparisons.Comparisons.nullsFirstLastWithComparator\n
*\npublic fun <T : Comparable<T>> reverseOrder(): Comparator<T> = @Suppress("UNCHECKED_CAST")
(ReverseOrderComparator as Comparator<T>)\n\n/**\n * Returns a comparator that imposes the reverse ordering
of this comparator.\n *\n * @sample samples.comparisons.Comparisons.reversed\n
*\n@Suppress("EXTENSION_SHADOWED_BY_MEMBER")\npublic fun <T> Comparator<T>.reversed():
Comparator<T> = when (this) {\n    is ReversedComparator -> this.comparator\n    NaturalOrderComparator ->
@Suppress("UNCHECKED_CAST") (ReverseOrderComparator as Comparator<T>)\n    ReverseOrderComparator -> @Suppress("UNCHECKED_CAST") (NaturalOrderComparator as
Comparator<T>)\n    else -> ReversedComparator(this)\n}\n\nprivate class ReversedComparator<T>(public val comparator:
Comparator<T>) : Comparator<T> {\n    override fun compare(a: T, b: T): Int = comparator.compare(b, a)\n    @Suppress("VIRTUAL_MEMBER_HIDDEN")\n    fun reversed(): Comparator<T> = comparator\n}\n\nprivate
object NaturalOrderComparator : Comparator<Comparable<Any>> {\n    override fun compare(a:
Comparable<Any>, b: Comparable<Any>): Int = a.compareTo(b)\n    @Suppress("VIRTUAL_MEMBER_HIDDEN")\n    fun reversed(): Comparator<Comparable<Any>> =
ReverseOrderComparator\n}\n\nprivate object ReverseOrderComparator : Comparator<Comparable<Any>> {\n
override fun compare(a: Comparable<Any>, b: Comparable<Any>): Int = b.compareTo(a)\n    @Suppress("VIRTUAL_MEMBER_HIDDEN")\n    fun reversed(): Comparator<Comparable<Any>> =
NaturalOrderComparator\n}\n\n"/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("StandardKt")\npackage kotlin\n\nimport
kotlin.contracts.*\n\n/**\n * An exception is thrown to indicate that a method body remains to be implemented.\n
*\npublic class NotImplementedError(message: String = "An operation is not implemented.") :
Error(message)\n\n/**\n * Always throws [NotImplementedError] stating that operation is not implemented.\n
*\n@kotlin.internal.InlineOnly\npublic inline fun TODO(): Nothing = throw NotImplementedError()\n\n/**\n *

```



Always throws [NotImplementedError] stating that operation is not implemented.

```

 * @param reason a string explaining why the implementation is missing.
 @kotlin.internal.InlineOnly
public inline fun TODO(reason: String): Nothing = throw NotImplementedError("An operation is not implemented: $reason")
 * Calls the specified function [block] and returns its result.
 * For detailed usage information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#run).
 @kotlin.internal.InlineOnly
public inline fun <R> run(block: () -> R): R {
    contract {
        callsInPlace(block, InvocationKind.EXACTLY_ONCE)
    }
    return block()
}
 * Calls the specified function [block] with `this` value as its receiver and returns its result.
 * For detailed usage information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#run).
 @kotlin.internal.InlineOnly
public inline fun <T, R> T.run(block: T.() -> R): R {
    contract {
        callsInPlace(block, InvocationKind.EXACTLY_ONCE)
    }
    return block()
}
 * Calls the specified function [block] with the given [receiver] as its receiver and returns its result.
 * For detailed usage information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#with).
 @kotlin.internal.InlineOnly
public inline fun <T, R> with(receiver: T, block: T.() -> R): R {
    contract {
        callsInPlace(block, InvocationKind.EXACTLY_ONCE)
    }
    return receiver.block()
}
 * Calls the specified function [block] with `this` value as its receiver and returns `this` value.
 * For detailed usage information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#apply).
 @kotlin.internal.InlineOnly
public inline fun <T> T.apply(block: T.() -> Unit): T {
    contract {
        callsInPlace(block, InvocationKind.EXACTLY_ONCE)
    }
    block()
    return this
}
 * Calls the specified function [block] with `this` value as its argument and returns `this` value.
 * For detailed usage information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#also).
 @kotlin.internal.InlineOnly
 @SinceKotlin("1.1")
public inline fun <T> T.also(block: (T) -> Unit): T {
    contract {
        callsInPlace(block, InvocationKind.EXACTLY_ONCE)
    }
    block(this)
    return this
}
 * Calls the specified function [block] with `this` value as its argument and returns its result.
 * For detailed usage information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#let).
 @kotlin.internal.InlineOnly
public inline fun <T, R> T.let(block: (T) -> R): R {
    contract {
        callsInPlace(block, InvocationKind.EXACTLY_ONCE)
    }
    return block(this)
}
 * Returns `this` value if it satisfies the given [predicate] or `null`, if it doesn't.
 * For detailed usage information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#takeif-and-takeunless).
 @kotlin.internal.InlineOnly
 @SinceKotlin("1.1")
public inline fun <T> T.takeIf(predicate: (T) -> Boolean): T? {
    contract {
        callsInPlace(predicate, InvocationKind.EXACTLY_ONCE)
    }
    return if (predicate(this)) this else null
}
 * Returns `this` value if it _does not_ satisfy the given [predicate] or `null`, if it does.
 * For detailed usage information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#takeif-and-takeunless).
 @kotlin.internal.InlineOnly
 @SinceKotlin("1.1")
public inline fun <T> T.takeUnless(predicate: (T) -> Boolean): T? {
    contract {
        callsInPlace(predicate, InvocationKind.EXACTLY_ONCE)
    }
    return if (!predicate(this)) this else null
}
 * Executes the given function [action] specified number of [times].
 * A zero-based index of current iteration is passed as a parameter to [action].
 * @sample samples.misc.ControlFlow.repeat
 @kotlin.internal.InlineOnly
public inline fun repeat(times: Int, action: (Int) -> Unit) {
    contract {
        callsInPlace(action)
    }
    for (index in 0 until times) {
        action(index)
    }
}

```

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package kotlin.comparisons
 NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt
 See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib/nimpor

```

kotlin.js.*\n\n/**\n * Returns the greater of two values.\n * \n * If values are equal, returns the first one.\n *\n@SinceKotlin("1.1")\npublic actual fun <T : Comparable<T>> maxOf(a: T, b: T): T {\n    return if (a >= b) a\n    else b\n}\n\n/**\n * Returns the greater of two values.\n *\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Byte, b: Byte): Byte {\n    return maxOf(a.toInt(), b.toInt()).unsafeCast<Byte>()\n}\n\n/**\n * Returns the greater of two values.\n *\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic actual inline\nfun maxOf(a: Short, b: Short): Short {\n    return maxOf(a.toInt(), b.toInt()).unsafeCast<Short>()\n}\n\n/**\n * Returns the greater of two values.\n *\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic actual inline\nfun maxOf(a: Int, b: Int): Int {\n    return JsMath.max(a, b)\n}\n\n/**\n * Returns the greater of two values.\n *\n@SinceKotlin("1.1")\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline fun maxOf(a: Long, b:\nLong): Long {\n    return if (a >= b) a else b\n}\n\n/**\n * Returns the greater of two values.\n * \n * If either value\nis `NaN`, returns `NaN`.\n *\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic actual inline fun\nmaxOf(a: Float, b: Float): Float {\n    return JsMath.max(a, b)\n}\n\n/**\n * Returns the greater of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n *\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic\nactual inline fun maxOf(a: Double, b: Double): Double {\n    return JsMath.max(a, b)\n}\n\n/**\n * Returns the\ngreater of three values.\n * \n * If there are multiple equal maximal values, returns the first of them.\n *\n@SinceKotlin("1.1")\npublic actual fun <T : Comparable<T>> maxOf(a: T, b: T, c: T): T {\n    return\nmaxOf(a, maxOf(b, c))\n}\n\n/**\n * Returns the greater of three values.\n *\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Byte, b: Byte, c: Byte):\nByte {\n    return JsMath.max(a.toInt(), b.toInt(), c.toInt()).unsafeCast<Byte>()\n}\n\n/**\n * Returns the greater of\nthree values.\n *\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Short, b:\nShort, c: Short): Short {\n    return JsMath.max(a.toInt(), b.toInt(), c.toInt()).unsafeCast<Short>()\n}\n\n/**\n * Returns the greater of three values.\n *\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic actual\ninline fun maxOf(a: Int, b: Int, c: Int): Int {\n    return JsMath.max(a, b, c)\n}\n\n/**\n * Returns the greater of three\nvalues.\n *\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Long, b: Long,\nc: Long): Long {\n    return maxOf(a, maxOf(b, c))\n}\n\n/**\n * Returns the greater of three values.\n * \n * If any\nvalue is `NaN`, returns `NaN`.\n *\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic actual inline fun\nmaxOf(a: Float, b: Float, c: Float): Float {\n    return JsMath.max(a, b, c)\n}\n\n/**\n * Returns the greater of three\nvalues.\n * \n * If any value is `NaN`, returns `NaN`.\n *\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Double, b: Double, c:\nDouble): Double {\n    return JsMath.max(a, b, c)\n}\n\n/**\n * Returns the greater of the given values.\n * \n * If\nthere are multiple equal maximal values, returns the first of them.\n *\n@SinceKotlin("1.4")\npublic actual fun <T\n: Comparable<T>>\nmaxOf(a: T, vararg other: T): T {\n    var max = a\n    for (e in other) max = maxOf(max, e)\n    return\nmax\n}\n\n/**\n * Returns the greater of the given values.\n *\n@SinceKotlin("1.4")\npublic actual fun maxOf(a:\nByte, vararg other: Byte): Byte {\n    var max = a\n    for (e in other) max = maxOf(max, e)\n    return\nmax\n}\n\n/**\n * Returns the greater of the given values.\n *\n@SinceKotlin("1.4")\npublic actual fun maxOf(a:\nShort, vararg other: Short): Short {\n    var max = a\n    for (e in other) max = maxOf(max, e)\n    return\nmax\n}\n\n/**\n * Returns the greater of the given values.\n *\n@SinceKotlin("1.4")\npublic actual fun maxOf(a:\nInt, vararg other: Int): Int {\n    var max = a\n    for (e in other) max = maxOf(max, e)\n    return max\n}\n\n/**\n * Returns the greater of the given values.\n *\n@SinceKotlin("1.4")\npublic actual fun maxOf(a: Long, vararg\nother: Long): Long {\n    var max = a\n    for (e in other) max = maxOf(max, e)\n    return max\n}\n\n/**\n * Returns the greater of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n *\n@SinceKotlin("1.4")\npublic actual fun maxOf(a: Float, vararg other: Float): Float {\n    var max = a\n    for (e\nin other) max = maxOf(max, e)\n    return max\n}\n\n/**\n * Returns the greater of the given values.\n * \n * If any\nvalue is `NaN`, returns `NaN`.\n *\n@SinceKotlin("1.4")\npublic actual fun maxOf(a: Double, vararg other:\nDouble): Double {\n    var max = a\n    for (e in other) max = maxOf(max, e)\n    return max\n}\n\n/**\n * Returns\nthe smaller of two values.\n * \n * If values are equal, returns the first one.\n *\n@SinceKotlin("1.1")\npublic

```

```

actual fun <T : Comparable<T>> minOf(a: T, b: T): T {
    return if (a <= b) a else b
}

Returns the smaller of two values.

@SinceKotlin("1.1")@kotlin.internal.InlineOnly
public actual inline fun minOf(a: Byte, b: Byte): Byte {
    return minOf(a.toInt(), b.toInt()).unsafeCast<Byte>()
}

Returns the smaller of two values.

@SinceKotlin("1.1")@kotlin.internal.InlineOnly
public actual inline fun minOf(a: Short, b: Short): Short {
    return minOf(a.toInt(), b.toInt()).unsafeCast<Short>()
}

Returns the smaller of two values.

@SinceKotlin("1.1")@kotlin.internal.InlineOnly
public actual inline fun minOf(a: Int, b: Int): Int {
    return JsMath.min(a, b)
}

Returns the smaller of two values.

@SinceKotlin("1.1")@Suppress("NOTHING_TO_INLINE")
public actual inline fun minOf(a: Long, b: Long): Long {
    return if (a <= b) a else b
}

Returns the smaller of two values.

If either value is NaN, returns NaN.

@SinceKotlin("1.1")@kotlin.internal.InlineOnly
public actual inline fun minOf(a: Float, b: Float): Float {
    return JsMath.min(a, b)
}

Returns the smaller of two values.

If either value is NaN, returns NaN.

@SinceKotlin("1.1")@kotlin.internal.InlineOnly
public actual inline fun minOf(a: Double, b: Double): Double {
    return JsMath.min(a, b)
}

Returns the smaller of three values.

If there are multiple equal minimal values, returns the first of them.

@SinceKotlin("1.1")@kotlin.internal.InlineOnly
public actual fun <T : Comparable<T>> minOf(a: T, b: T, c: T): T {
    return minOf(a, minOf(b, c))
}

Returns the smaller of three values.

@SinceKotlin("1.1")@kotlin.internal.InlineOnly
public actual inline fun minOf(a: Byte, b: Byte, c: Byte): Byte {
    return JsMath.min(a.toInt(), b.toInt(), c.toInt()).unsafeCast<Byte>()
}

Returns the smaller of three values.

@SinceKotlin("1.1")@kotlin.internal.InlineOnly
public actual inline fun minOf(a: Short, b: Short, c: Short): Short {
    return JsMath.min(a.toInt(), b.toInt(), c.toInt()).unsafeCast<Short>()
}

Returns the smaller of three values.

@SinceKotlin("1.1")@kotlin.internal.InlineOnly
public actual inline fun minOf(a: Int, b: Int, c: Int): Int {
    return JsMath.min(a, b, c)
}

Returns the smaller of three values.

@SinceKotlin("1.1")@kotlin.internal.InlineOnly
public actual inline fun minOf(a: Long, b: Long, c: Long): Long {
    return minOf(a, minOf(b, c))
}

Returns the smaller of three values.

If any value is NaN, returns NaN.

@SinceKotlin("1.1")@kotlin.internal.InlineOnly
public actual inline fun minOf(a: Float, b: Float, c: Float): Float {
    return JsMath.min(a, b, c)
}

Returns the smaller of three values.

If any value is NaN, returns NaN.

@SinceKotlin("1.1")@kotlin.internal.InlineOnly
public actual inline fun minOf(a: Double, b: Double, c: Double): Double {
    return JsMath.min(a, b, c)
}

Returns the smaller of the given values.

If there are multiple equal minimal values, returns the first of them.

@SinceKotlin("1.4")@kotlin.internal.InlineOnly
public actual fun <T : Comparable<T>> minOf(a: T, vararg other: T): T {
    var min = a
    for (e in other) min = minOf(min, e)
    return min
}

Returns the smaller of the given values.

@SinceKotlin("1.4")@kotlin.internal.InlineOnly
public actual fun minOf(a: Byte, vararg other: Byte): Byte {
    var min = a
    for (e in other) min = minOf(min, e)
    return min
}

Returns the smaller of the given values.

@SinceKotlin("1.4")@kotlin.internal.InlineOnly
public actual fun minOf(a: Short, vararg other: Short): Short {
    var min = a
    for (e in other) min = minOf(min, e)
    return min
}

Returns the smaller of the given values.

@SinceKotlin("1.4")@kotlin.internal.InlineOnly
public actual fun minOf(a: Int, vararg other: Int): Int {
    var min = a
    for (e in other) min = minOf(min, e)
    return min
}

Returns the smaller of the given values.

@SinceKotlin("1.4")@kotlin.internal.InlineOnly
public actual fun minOf(a: Long, vararg other: Long): Long {
    var min = a
    for (e in other) min = minOf(min, e)
    return min
}

Returns the smaller of the given values.

If any value is NaN, returns NaN.

@SinceKotlin("1.4")@kotlin.internal.InlineOnly
public actual fun minOf(a: Float, vararg other: Float): Float {
    var min = a
    for (e in other) min = minOf(min, e)
    return min
}

Returns the smaller of the given values.

If any value is NaN, returns NaN.

@SinceKotlin("1.4")@kotlin.internal.InlineOnly
public actual fun minOf(a: Double, vararg other: Double): Double {
    var min = a
    for (e in other) min = minOf(min, e)
    return min
}

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// Auto-generated file. DO NOT EDIT!
package kotlin
import kotlin.experimental.*
import

```

```

kotlin.jvm.*\n\n@SinceKotlin("1.5")\n\n@WasExperimental(ExperimentalUnsignedTypes::class)\n\n@JvmInline\n\npublic value class ULong @PublishedApi

internal constructor(@PublishedApi internal val data: Long) : Comparable<ULong> {\n\n    companion object {\n\n        /**\n         * A constant holding the minimum value an instance of ULong can have.\n         */\n        public const val MIN_VALUE: ULong = ULong(0)\n\n        /**\n         * A constant holding the maximum value an instance of ULong can have.\n         */\n        public const val MAX_VALUE: ULong = ULong(-1)\n\n        /**\n         * The number of bytes used to represent an instance of ULong in a binary form.\n         */\n        public const val SIZE_BYTES: Int = 8\n\n        /**\n         * The number of bits used to represent an instance of ULong in a binary form.\n         */\n        public const val SIZE_BITS: Int = 64\n    }\n\n    /**\n     * Compares this value with the specified value for order.\n     * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n     * or a positive number if it's greater than other.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun compareTo(other: UByte): Int = this.compareTo(other.toULong())\n\n    /**\n     * Compares this value with the specified value for order.\n     * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n     * or a positive number if it's greater than other.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun compareTo(other: UShort): Int = this.compareTo(other.toULong())\n\n    /**\n     * Compares this value with the specified value for order.\n     * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n     * or a positive number if it's greater than other.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun compareTo(other: UInt): Int = this.compareTo(other.toULong())\n\n    /**\n     * Compares this value with the specified value for order.\n     * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n     * or a positive number if it's greater than other.\n     */\n    @kotlin.internal.InlineOnly\n    public override inline operator fun compareTo(other: ULong): Int = ulongCompare(this.data, other.data)\n\n    /**\n     * Adds the other value to this value.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun plus(other: UByte): ULong = this.plus(other.toULong())\n\n    /**\n     * Adds the other value to this value.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun plus(other: UShort): ULong = this.plus(other.toULong())\n\n    /**\n     * Adds the other value to this value.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun plus(other: UInt): ULong = this.plus(other.toULong())\n\n    /**\n     * Adds the other value to this value.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun plus(other: ULong): ULong = ULong(this.data.plus(other.data))\n\n    /**\n     * Subtracts the other value from this value.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun minus(other: UByte): ULong = this.minus(other.toULong())\n\n    /**\n     * Subtracts the other value from this value.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun minus(other: UShort): ULong = this.minus(other.toULong())\n\n    /**\n     * Subtracts the other value from this value.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun minus(other: UInt): ULong = this.minus(other.toULong())\n\n    /**\n     * Subtracts the other value from this value.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun minus(other: ULong): ULong = ULong(this.data.minus(other.data))\n\n    /**\n     * Multiplies this value by the other value.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun times(other: UByte): ULong = this.times(other.toULong())\n\n    /**\n     * Multiplies this value by the other value.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun times(other: UShort): ULong = this.times(other.toULong())\n\n    /**\n     * Multiplies this value by the other value.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun times(other: UInt): ULong = this.times(other.toULong())\n\n    /**\n     * Multiplies this value by the other value.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun times(other: ULong): ULong = ULong(this.data.times(other.data))\n\n    /**\n     * Divides this value by the other value, truncating the result to an integer that is closer to zero.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun div(other: UByte): ULong = this.div(other.toULong())\n\n    /**\n     * Divides this value by the other value, truncating the result to an integer that is closer to zero.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun div(other: UShort): ULong = this.div(other.toULong())\n\n    /**\n     * Divides this value by the other value, truncating the result to an integer that is closer to zero.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun div(other: UInt): ULong = this.div(other.toULong())\n\n    /**\n     * Divides this value by the other value, truncating the result to an integer that is closer to zero.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun div(other: ULong): ULong = ULong(this.data.div(other.data))

```

value, truncating the result

```
to an integer that is closer to zero. */\n @kotlin.internal.InlineOnly\n public inline operator fun div(other: UInt):  
ULong = this.div(other.toULong())\n /** Divides this value by the other value, truncating the result to an integer  
that is closer to zero. */\n @kotlin.internal.InlineOnly\n public inline operator fun div(other: ULong): ULong =  
ulongDivide(this, other)\n /**\n * Calculates the remainder of truncating division of this value by the other  
value.\n * \n * The result is always less than the divisor.\n */\n @kotlin.internal.InlineOnly\n public  
inline operator fun rem(other: UByte): ULong = this.rem(other.toULong())\n /**\n * Calculates the remainder  
of truncating division of this value by the other value.\n * \n * The result is always less than the divisor.\n */\n @kotlin.internal.InlineOnly\n public inline operator fun rem(other: UInt): ULong =  
this.rem(other.toULong())\n /**\n * Calculates the remainder  
of truncating division of this value by the other value.\n * \n * The result is always less than the divisor.\n */\n @kotlin.internal.InlineOnly\n public inline operator fun rem(other: ULong): ULong = ulongRemainder(this, other)\n /**\n * Divides this value by  
the other value, flooring the result to an integer that is closer to negative infinity.\n * \n * For unsigned types,  
the results of flooring division and truncating division are the same.\n */\n @kotlin.internal.InlineOnly\n public inline fun floorDiv(other: UByte): ULong = this.floorDiv(other.toULong())\n /**\n * Divides this value  
by the other value, flooring the result to an integer that is  
closer to negative infinity.\n * \n * For unsigned types, the results of flooring division and truncating division  
are the same.\n */\n @kotlin.internal.InlineOnly\n public inline fun floorDiv(other: UShort): ULong =  
this.floorDiv(other.toULong())\n /**\n * Divides this value by the other value, flooring the result to an integer  
that is closer to negative infinity.\n * \n * For unsigned types, the results of flooring division and truncating  
division are the same.\n */\n @kotlin.internal.InlineOnly\n public inline fun floorDiv(other: UInt): ULong =  
this.floorDiv(other.toULong())\n /**\n * Divides this value by the other value, flooring the result to an integer  
that is closer to negative infinity.\n * \n * For unsigned types, the results of flooring division and truncating  
division are the same.\n */\n @kotlin.internal.InlineOnly\n public inline fun floorDiv(other: ULong): ULong =  
div(other)\n /**\n * Calculates  
the remainder of flooring division of this value by the other value.\n * \n * The result is always less than the  
divisor.\n * \n * For unsigned types, the remainders of flooring division and truncating division are the same.\n */\n @kotlin.internal.InlineOnly\n public inline fun mod(other: UByte): UByte =  
this.mod(other.toULong()).toUByte()\n /**\n * Calculates the remainder of flooring division of this value by the  
other value.\n * \n * The result is always less than the divisor.\n * \n * For unsigned types, the remainders  
of flooring division and truncating division are the same.\n */\n @kotlin.internal.InlineOnly\n public inline  
fun mod(other: UShort): UShort = this.mod(other.toULong()).toUShort()\n /**\n * Calculates the remainder of  
flooring division of this value by the other value.\n * \n * The result is always less than the divisor.\n * \n * \n * For unsigned types, the remainders of flooring division  
and truncating division are the same.\n */\n @kotlin.internal.InlineOnly\n public inline fun mod(other: UInt):  
UInt = this.mod(other.toULong()).toUInt()\n /**\n * Calculates the remainder of flooring division of this value  
by the other value.\n * \n * The result is always less than the divisor.\n * \n * For unsigned types, the  
remainders of flooring division and truncating division are the same.\n */\n @kotlin.internal.InlineOnly\n public inline fun mod(other: ULong): ULong = rem(other)\n /**\n * Returns this value incremented by one.\n * \n * @sample samples.misc.Builtins.inc\n */\n @kotlin.internal.InlineOnly\n public inline operator fun  
inc(): ULong = ULong(data.inc())\n /**\n * Returns this value decremented by one.\n * \n * @sample  
samples.misc.Builtins.dec\n */\n @kotlin.internal.InlineOnly\n public inline operator fun dec(): ULong =  
ULong(data.dec())\n /** Creates a range from  
this value to the specified [other] value. */\n @kotlin.internal.InlineOnly\n public inline operator fun  
rangeTo(other: ULong): ULongRange = ULongRange(this, other)\n /**\n * Shifts this value left by the
```

[bitCount] number of bits.\n \* Note that only the six lowest-order bits of the [bitCount] are used as the shift distance.\n \* The shift distance actually used is therefore always in the range `0..63`.\n \*/\n

```
@kotlin.internal.InlineOnly\n public inline infix fun shl(bitCount: Int): ULong = ULong(data shl bitCount)\n\n /**\n * Shifts this value right by the [bitCount] number of bits, filling the leftmost bits with zeros.\n * Note that only the six lowest-order bits of the [bitCount] are used as the shift distance.\n * The shift distance actually used is therefore always in the range `0..63`.\n */\n @kotlin.internal.InlineOnly\n public inline infix fun shr(bitCount: Int): ULong = ULong(data ushr bitCount)\n\n /**\n Performs a bitwise AND operation between the two values.\n @kotlin.internal.InlineOnly\n public inline infix fun and(other: ULong): ULong = ULong(this.data and other.data)\n\n /** Performs a bitwise OR operation between the two values.\n @kotlin.internal.InlineOnly\n public inline infix fun or(other: ULong): ULong = ULong(this.data or other.data)\n\n /** Performs a bitwise XOR operation between the two values.\n @kotlin.internal.InlineOnly\n public inline infix fun xor(other: ULong): ULong = ULong(this.data xor other.data)\n\n /** Inverts the bits in this value.\n @kotlin.internal.InlineOnly\n public inline fun inv(): ULong = ULong(data.inv())\n\n /**\n * Converts this [ULong] value to [Byte].\n * If this value is less than or equals to [Byte.MAX_VALUE], the resulting `Byte` value represents\n * the same numerical value as this `ULong`.\n * The resulting `Byte` value is represented by the least significant 8 bits of this `ULong` value.\n * Note that the resulting `Byte` value may be negative.\n */\n @kotlin.internal.InlineOnly\n public inline fun toByte(): Byte = data.toByte()\n\n /**\n * Converts this [ULong] value to [Short].\n * If this value is less than or equals to [Short.MAX_VALUE], the resulting `Short` value represents\n * the same numerical value as this `ULong`.\n * The resulting `Short` value is represented by the least significant 16 bits of this `ULong` value.\n * Note that the resulting `Short` value may be negative.\n */\n @kotlin.internal.InlineOnly\n public inline fun toShort(): Short = data.toShort()\n\n /**\n * Converts this [ULong] value to [Int].\n * If this value is less than or equals to [Int.MAX_VALUE], the resulting `Int` value represents\n * the same numerical value as this `ULong`.\n * The resulting `Int` value is represented by the least significant 32 bits of this `ULong` value.\n * Note that the resulting `Int` value may be negative.\n */\n @kotlin.internal.InlineOnly\n public inline fun toInt(): Int = data.toInt()\n\n /**\n * Converts this [ULong] value to [Long].\n * If this value is less than or equals to [Long.MAX_VALUE], the resulting `Long` value represents\n * the same numerical value as this `ULong`. Otherwise the result is negative.\n * The resulting `Long` value has the same binary representation as this `ULong` value.\n */\n @kotlin.internal.InlineOnly\n public inline fun toLong(): Long = data\n\n /**\n * Converts this [ULong] value to [UByte].\n * If this value is less than or equals to [UByte.MAX_VALUE], the resulting `UByte` value represents\n * the same numerical value as this `ULong`.\n * The resulting `UByte` value is represented by the least significant 8 bits of this `ULong` value.\n */\n @kotlin.internal.InlineOnly\n public inline fun toUByte(): UByte = data.toUByte()\n\n /**\n * Converts this [ULong] value to [UShort].\n * If this value is less than or equals to [UShort.MAX_VALUE], the resulting `UShort` value represents\n * the same numerical value as this `ULong`.\n * The resulting `UShort` value is represented by the least significant 16 bits of this `ULong` value.\n */\n @kotlin.internal.InlineOnly\n public inline fun toUShort(): UShort = data.toUShort()\n\n /**\n * Converts this [ULong] value to [UInt].\n * If this value is less than or equals to [UInt.MAX_VALUE], the resulting `UInt` value represents\n * the same numerical value as this `ULong`.\n * The resulting `UInt` value is represented by the least significant 32 bits of this `ULong` value.\n */\n @kotlin.internal.InlineOnly\n public inline fun toUInt(): UInt = data.toUInt()\n\n /** Returns this value.\n @kotlin.internal.InlineOnly\n public inline fun toULong(): ULong = this\n\n /**\n * Converts this [ULong] value to [Float].\n * The resulting value is the closest `Float` to this `ULong` value.\n * In case when this `ULong` value is exactly between two `Float`s, the one with zero at least significant bit of mantissa is selected.\n */\n @kotlin.internal.InlineOnly\n public inline fun toFloat(): Float = this.toDouble().toFloat()\n\n /**\n * Converts this [ULong] value to [Double].\n * The resulting value is the closest `Double` to this `ULong` value.\n * In case when this `ULong` value is exactly

```



```

size of this list is less than 5.\n * \n @kotlin.internal.InlineOnly\npublic inline operator fun <T>
List<T>.component5(): T {\n    return get(4)\n}\n\n/**\n * Returns `true` if [element] is found in the collection.\n * \n\npublic operator fun <@kotlin.internal.OnlyInputTypes T> Iterable<T>.contains(element: T): Boolean {\n    if
(this is Collection)\n        return contains(element)\n    return indexOf(element) >= 0\n}\n\n/**\n * Returns an
element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this
collection.\n * \n * @sample
samples.collections.Collections.Elements.elementAt\n * \n\npublic fun <T> Iterable<T>.elementAt(index: Int): T {\n
if (this is List)\n    return get(index)\n    return elementAtOrElse(index) { throw
IndexOutOfBoundsException("Collection doesn't contain element at index $index.\") }\n}\n\n/**\n * Returns an
element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this list.\n
* \n * @sample samples.collections.Collections.Elements.elementAt\n * \n\n@kotlin.internal.InlineOnly\npublic
inline fun <T> List<T>.elementAt(index: Int): T {\n    return get(index)\n}\n\n/**\n * Returns an element at the
given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this collection.\n
* \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n * \n\npublic fun <T>
Iterable<T>.elementAtOrElse(index: Int, defaultValue: (Int) -> T): T {\n    if (this is List)\n        return
this.getOrElse(index,
        defaultValue)\n    if (index < 0)\n        return defaultValue(index)\n    val iterator = iterator()\n    var count = 0\n
while (iterator.hasNext()) {\n        val element = iterator.next()\n        if (index == count++)\n            return
element\n    }\n    return defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds of this list.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n * \n\n@kotlin.internal.InlineOnly\npublic inline fun
<T> List<T>.elementAtOrElse(index: Int, defaultValue: (Int) -> T): T {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the
[index] is out of bounds of this collection.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n * \n\npublic fun <T>
Iterable<T>.elementAtOrNull(index: Int): T? {\n    if (this
is List)\n        return this.getOrNull(index)\n    if (index < 0)\n        return null\n    val iterator = iterator()\n    var
count = 0\n    while (iterator.hasNext()) {\n        val element = iterator.next()\n        if (index == count++)\n
return element\n    }\n    return null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is
out of bounds of this list.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n * \n\n@kotlin.internal.InlineOnly\npublic inline fun <T> List<T>.elementAtOrNull(index: Int): T? {\n    return
this.getOrNull(index)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such
element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n * \n\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.find(predicate: (T) -> Boolean): T? {\n    return
firstOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate],
or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n * \n\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.findLast(predicate: (T) -> Boolean): T? {\n
return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no
such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n * \n\n@kotlin.internal.InlineOnly\npublic inline fun <T> List<T>.findLast(predicate: (T) -> Boolean): T? {\n    return
lastOrNull(predicate)\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the collection
is empty.\n * \n\npublic fun <T> Iterable<T>.first(): T {\n    when (this) {\n        is List -> return this.first()\n        else
-> {\n            val iterator = iterator()\n            if (!iterator.hasNext())\n                throw
NoSuchElementException("Collection is empty.\")\n            return iterator.next()\n        }\n    }\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the list is empty.\n * \n\npublic fun <T>
List<T>.first(): T {\n    if (isEmpty())\n        throw NoSuchElementException("List is empty.\")\n    return
this[0]\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws
[NoSuchElementException] if no such element is found.\n * \n\npublic inline fun <T> Iterable<T>.first(predicate: (T)

```



```

-> Boolean): T {
    for (element in this) if (predicate(element)) return element
    throw NoSuchElementException("Collection contains no element matching the predicate.")
}

* Returns the first non-null value produced by [transform] function being applied to elements of this collection in iteration order,
* or throws [NoSuchElementException] if no non-null value was produced.
@sample
samples.collections.Collections.Transformations.firstNotNullOf

*
@SinceKotlin("1.5")
@kotlin.internal.InlineOnly
public inline fun <T, R : Any>
Iterable<T>.firstNotNullOf(transform:
(T) -> R?): R {
    return firstNotNullOfOrNull(transform) ?: throw NoSuchElementException("No element of the
collection was transformed to a non-null value.")
}

* Returns the first non-null value produced by
[transform] function being applied to elements of this collection in iteration order,
* or `null` if no non-null value
was produced.
@sample
samples.collections.Collections.Transformations.firstNotNullOf

*
@SinceKotlin("1.5")
@kotlin.internal.InlineOnly
public inline fun <T, R : Any>
Iterable<T>.firstNotNullOfOrNull(transform: (T) -> R?): R? {
    for (element in this) {
        val result =
transform(element)
        if (result != null) {
            return result
        }
    }
    return null
}

Returns the first element, or `null` if the collection is empty.
public fun <T> Iterable<T>.firstOrNull(): T? {
    when (this) {
        is List -> {
            if (isEmpty())
return null
            else
return this[0]
        }
        else -> {
            val iterator = iterator()
if (!iterator.hasNext())
return null
            return iterator.next()
        }
    }
}

* Returns the first element, or `null` if the list is empty.
public fun <T> List<T>.firstOrNull(): T? {
    return if (isEmpty())
null else this[0]
}

* Returns the first element matching the given [predicate], or `null` if element was not
found.
public inline fun <T> Iterable<T>.firstOrNull(predicate: (T) -> Boolean): T? {
    for (element in this)
if (predicate(element)) return element
    return null
}

* Returns an element at the given [index] or the
result of calling the [defaultValue] function if the [index] is out of bounds of this list.
@kotlin.internal.InlineOnly
public inline fun <T> List<T>.getOrNull(index: Int, defaultValue: (Int) -> T): T? {
    return if (index >= 0 && index
<= lastIndex) get(index) else defaultValue(index)
}

* Returns an element at the given [index] or `null` if
the [index] is out of bounds of this list.
@sample
samples.collections.Collections.Elements.getOrNull

*
public fun <T> List<T>.getOrNull(index: Int): T? {
    return if (index >= 0 && index <= lastIndex) get(index)
else null
}

* Returns first index of [element], or -1 if the collection does not contain element.
public fun <@kotlin.internal.OnlyInputTypes T> Iterable<T>.indexOf(element: T): Int {
    if (this is List) return
this.indexOf(element)
    var index = 0
    for (item in this) {
        checkIndexOverflow(index)
        if (element
== item)
return index
        index++
    }
    return -1
}

* Returns first index of [element], or -1
if the list does not contain element.
@Suppress("EXTENSION_SHADOWED_BY_MEMBER") // false
warning, extension takes precedence in some cases
public fun <@kotlin.internal.OnlyInputTypes
T> List<T>.indexOf(element: T): Int {
    return indexOf(element)
}

* Returns index of the first element
matching the given [predicate], or -1 if the collection does not contain such element.
public inline fun <T>
Iterable<T>.indexOfFirst(predicate: (T) -> Boolean): Int {
    var index = 0
    for (item in this) {
        checkIndexOverflow(index)
        if (predicate(item))
return index
        index++
    }
    return -1
}

* Returns index of the first element matching the given [predicate], or -1 if the list does not contain
such element.
public inline fun <T> List<T>.indexOfFirst(predicate: (T) -> Boolean): Int {
    var index = 0
    for (item in this) {
        if (predicate(item))
return index
        index++
    }
    return -1
}

* Returns index of the last element matching the given [predicate], or -1 if the collection does not contain such
element.
public inline fun
<T> Iterable<T>.indexOfLast(predicate: (T) -> Boolean): Int {
    var lastIndex = -1
    var index = 0
    for (item
in this) {
        checkIndexOverflow(index)
        if (predicate(item))
lastIndex = index
        index++
    }
    return lastIndex
}

* Returns index of the last element matching the given [predicate], or -1 if the list
does not contain such element.
public inline fun <T> List<T>.indexOfLast(predicate: (T) -> Boolean): Int {
    val iterator = this.listIterator(size)
    while (iterator.hasPrevious()) {
        if (predicate(iterator.previous())) {

```



```

throw NoSuchElementException("Collection is empty.")\n    return elementAt(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this collection, or `null` if this collection is empty.\n *\n */\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic\n    inline fun <T> Collection<T>.randomOrNull(): T? {\n        return randomOrNull(Random)\n    }\n\n/**\n * Returns a random element from this collection using the specified source of randomness, or `null` if this collection is empty.\n *\n */\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T>\n    Collection<T>.randomOrNull(random: Random): T? {\n        if (isEmpty())\n            return null\n        return\n            elementAt(random.nextInt(size))\n    }\n\n/**\n * Returns the single element, or throws an exception if the collection is empty or has more than one element.\n *\n */\npublic fun <T> Iterable<T>.single(): T {\n    when (this) {\n        is List -> return this.single()\n        else -> {\n            val iterator = iterator()\n            if (!iterator.hasNext())\n                throw NoSuchElementException("Collection is empty.")\n            val single = iterator.next()\n            if (iterator.hasNext())\n                throw IllegalArgumentException("Collection has more than one element.")\n            return single\n        }\n    }\n}\n\n/**\n * Returns the single element, or throws an exception if the list is empty or has more than one element.\n *\n */\npublic fun <T> List<T>.single(): T {\n    return when (size) {\n        0 -> throw NoSuchElementException("List is empty.")\n        1 -> this[0]\n        else -> throw\n            IllegalArgumentException("List has more than one element.")\n    }\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n *\n */\npublic inline fun <T> Iterable<T>.single(predicate: (T) -> Boolean): T {\n    var single: T? = null\n    var found = false\n    for (element in this) {\n        if (predicate(element)) {\n            if (found) throw\n                IllegalArgumentException("Collection contains more than one matching element.")\n            single = element\n            found = true\n        }\n    }\n    if (!found) throw NoSuchElementException("Collection contains no element matching the predicate.")\n    @SuppressWarnings("UNCHECKED_CAST")\n    return single as T\n}\n\n/**\n * Returns single element, or `null` if the collection is empty or has more than one element.\n *\n */\npublic fun <T> Iterable<T>.singleOrNull(): T? {\n    when (this) {\n        is List -> return if (size == 1) this[0] else null\n        else -> {\n            val iterator = iterator()\n            if (!iterator.hasNext())\n                return null\n            val single = iterator.next()\n            if (iterator.hasNext())\n                return null\n            return single\n        }\n    }\n}\n\n/**\n * Returns single element, or `null` if the list is empty or has more than one element.\n *\n */\npublic fun <T> List<T>.singleOrNull(): T? {\n    return if (size == 1) this[0] else null\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n *\n */\npublic inline fun <T> Iterable<T>.singleOrNull(predicate: (T) -> Boolean): T? {\n    var single: T? = null\n    var found = false\n    for (element in this) {\n        if (predicate(element)) {\n            if (found) return null\n            single = element\n            found = true\n        }\n    }\n    if (!found) return null\n    return single\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n *\n */\n@throws IllegalArgumentException if [n] is negative.\n * @sample\n    samples.collections.Collections.Transformations.drop\n */\npublic fun <T> Iterable<T>.drop(n: Int): List<T> {\n    require(n >= 0) { "Requested element count $n is less than zero." }\n    if (n == 0) return toList()\n    val list: ArrayList<T>\n    if (this is Collection<*>) {\n        val resultSize = size - n\n        if (resultSize <= 0)\n            return emptyList()\n        if (resultSize == 1)\n            return listOf(last())\n        list = ArrayList<T>(resultSize)\n        if (this is List<T>) {\n            if (this is RandomAccess) {\n                for (index in n until size)\n                    list.add(this[index])\n            } else {\n                for (item in listIterator(n))\n                    list.add(item)\n            }\n        }\n        return list\n    }\n    else {\n        list = ArrayList<T>()\n        var count = 0\n        for (item in this) {\n            if (count >= n) list.add(item) else ++count\n        }\n        return list.optimizeReadOnlyList()\n    }\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n *\n */\n@throws IllegalArgumentException if [n] is negative.\n * @sample\n    samples.collections.Collections.Transformations.drop\n */\npublic fun <T> List<T>.dropLast(n: Int): List<T> {\n
```

```

require(n >= 0) { \"Requested element count $n is less than zero.\" }\n return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements
except last elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n * \npublic inline fun <T>
List<T>.dropLastWhile(predicate: (T) -> Boolean): List<T> {\n if (!isEmpty()) {\n val iterator =
listIterator(size)\n while (iterator.hasPrevious()) {\n if (!predicate(iterator.previous())) {\n return
take(iterator.nextIndex() + 1)\n }\n }\n }\n return emptyList()\n}\n\n/**\n * Returns a list containing
all elements except first elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n * \npublic inline fun <T> Iterable<T>.dropWhile(predicate:
(T) -> Boolean): List<T> {\n var yielding = false\n val list = ArrayList<T>()\n for (item in this)\n if
(yielding)\n list.add(item)\n else if (!predicate(item)) {\n list.add(item)\n yielding = true\n
}\n
return list\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n * \npublic inline fun <T> Iterable<T>.filter(predicate: (T) ->
Boolean): List<T> {\n return filterTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Returns a list containing only
elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the
element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexed\n * \npublic inline fun <T>
Iterable<T>.filterIndexed(predicate: (index: Int, T) -> Boolean): List<T> {\n return
filterIndexedTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Appends all elements matching the given [predicate] to
the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n *
and returns the result of predicate
evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n * \npublic
inline fun <T, C : MutableCollection<in T>> Iterable<T>.filterIndexedTo(destination: C, predicate: (index: Int, T) -
> Boolean): C {\n forEachIndexed { index, element ->\n if (predicate(index, element))
destination.add(element)\n }\n return destination\n}\n\n/**\n * Returns a list containing all elements that are
instances of specified type parameter R.\n * \n * @sample
samples.collections.Collections.Filtering.filterIsInstance\n * \npublic inline fun <reified R>
Iterable<*>.filterIsInstance(): List<@kotlin.internal.NoInfer R> {\n return
filterIsInstanceTo(ArrayList<R>())\n}\n\n/**\n * Appends all elements that are instances of specified type
parameter R to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterIsInstanceTo\n * \npublic inline fun <reified R, C :
MutableCollection<in R>> Iterable<*>.filterIsInstanceTo(destination:
C): C {\n for (element in this) if (element is R) destination.add(element)\n return destination\n}\n\n/**\n *
Returns a list containing all elements not matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n * \npublic inline fun <T> Iterable<T>.filterNot(predicate: (T) ->
Boolean): List<T> {\n return filterNotTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Returns a list containing all
elements that are not `null`.\n * \n * @sample samples.collections.Collections.Filtering.filterNotNull\n * \npublic
fun <T : Any> Iterable<T?>.filterNotNull(): List<T> {\n return filterNotNullTo(ArrayList<T>())\n}\n\n/**\n *
Appends all elements that are not `null` to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterNotNullTo\n * \npublic fun <C : MutableCollection<in T>, T : Any>
Iterable<T?>.filterNotNullTo(destination: C): C {\n for (element in this) if (element != null)
destination.add(element)\n
return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given
[destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n * \npublic inline fun <T, C :
MutableCollection<in T>> Iterable<T>.filterNotTo(destination: C, predicate: (T) -> Boolean): C {\n for (element
in this) if (!predicate(element)) destination.add(element)\n return destination\n}\n\n/**\n * Appends all elements
matching the given [predicate] to the given [destination].\n * \n * @sample

```

```

samples.collections.Collections.Filtering.filterTo\n *^\npublic inline fun <T, C : MutableCollection<in T>>
Iterable<T>.filterTo(destination: C, predicate: (T) -> Boolean): C {\n  for (element in this) if (predicate(element))
destination.add(element)\n  return destination\n}\n\n/**\n * Returns a list containing elements at indices in the
specified [indices] range.\n *^\npublic fun <T> List<T>.slice(indices: IntRange): List<T> {\n  if
(indices.isEmpty()) return
listOf()\n  return this.subList(indices.start, indices.endInclusive + 1).toList()\n}\n\n/**\n * Returns a list
containing elements at specified [indices].\n *^\npublic fun <T> List<T>.slice(indices: Iterable<Int>): List<T> {\n
val size = indices.collectionSizeOrDefault(10)\n  if (size == 0) return emptyList()\n  val list =
ArrayList<T>(size)\n  for (index in indices) {\n    list.add(get(index))\n  }\n  return list\n}\n\n/**\n * Returns
a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n *^\npublic fun <T> Iterable<T>.take(n: Int): List<T> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return emptyList()\n  if (this is
Collection<T>) {\n    if (n >= size) return toList()\n    if (n == 1) return listOf(first())\n  }\n  var count = 0\n
val list = ArrayList<T>(n)\n  for (item in this)
{\n    list.add(item)\n    if (++count == n)\n      break\n  }\n  return
list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n *^\npublic fun <T> List<T>.takeLast(n: Int): List<T> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return emptyList()\n  val size =
size\n  if (n >= size) return toList()\n  if (n == 1) return listOf(last())\n  val list = ArrayList<T>(n)\n  if (this is
RandomAccess) {\n    for (index in size - n until size)\n      list.add(this[index])\n  } else {\n    for (item in
listIterator(size - n))\n      list.add(item)\n  }\n  return list\n}\n\n/**\n * Returns a list containing last elements
satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n *^\npublic
inline fun <T> List<T>.takeLastWhile(predicate: (T) -> Boolean): List<T> {\n  if (isEmpty())\n    return
emptyList()\n  val iterator = listIterator(size)\n  while (iterator.hasPrevious()) {\n    if
(!predicate(iterator.previous())) {\n      iterator.next()\n      val expectedSize = size - iterator.nextIndex()\n
if (expectedSize == 0) return emptyList()\n      return ArrayList<T>(expectedSize).apply {\n        while
(iterator.hasNext())\n          add(iterator.next())\n        }\n      }\n    }\n  }\n  return toList()\n}\n\n/**\n *
Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n *^\npublic inline fun <T> Iterable<T>.takeWhile(predicate:
(T) -> Boolean): List<T> {\n  val list = ArrayList<T>()\n  for (item in this) {\n    if (!predicate(item))\n
break\n    list.add(item)\n  }\n  return list\n}\n\n/**\n *
Reverses elements in the list in-place.\n *^\npublic fun <T> MutableList<T>.reverse(): Unit\n\n/**\n *
Returns a list with elements in reversed order.\n *^\npublic fun <T> Iterable<T>.reversed(): List<T> {\n  if (this is
Collection && size <= 1) return toList()\n  val list = toMutableList()\n  list.reverse()\n  return list\n}\n\n/**\n *
Randomly shuffles elements in this list in-place using the specified [random] instance as the source of
randomness.\n * \n * See:
https://en.wikipedia.org/wiki/Fisher%20%80%93Yates\_shuffle#The\_modern\_algorithm\n
*\n *^\n@SinceKotlin(\"1.3\")\npublic fun <T> MutableList<T>.shuffle(random: Random): Unit {\n  for (i in lastIndex
downTo 1) {\n    val j = random.nextInt(i + 1)\n    this[j] = this.set(i, this[j])\n  }\n}\n\n/**\n * Sorts elements
in the list in-place according to natural sort order of the value returned by specified [selector] function.\n * \n * The
sort is _stable_. It means that equal elements preserve their order
relative to each other after sorting.\n *^\npublic inline fun <T, R : Comparable<R>>
MutableList<T>.sortBy(crossinline selector: (T) -> R?): Unit {\n  if (size > 1)
sortWith(compareBy(selector))\n}\n\n/**\n * Sorts elements in the list in-place descending according to natural sort
order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal
elements preserve their order relative to each other after sorting.\n *^\npublic inline fun <T, R : Comparable<R>>
MutableList<T>.sortByDescending(crossinline selector: (T) -> R?): Unit {\n  if (size > 1)

```

`sortWith(compareByDescending(selector))` sorts elements in the list in-place descending according to their natural sort order. The sort is `_stable_`. It means that equal elements preserve their order relative to each other after sorting.

```

public fun <T : Comparable<T>> MutableList<T>.sortDescending(): Unit {
    sortWith(reverseOrder())
}

```

Returns a list of all elements sorted according to their natural sort order. The sort is `_stable_`. It means that equal elements preserve their order relative to each other after sorting.

```

public fun <T : Comparable<T>> Iterable<T>.sorted(): List<T> {
    if (this is Collection) {
        if (size <= 1) return this.toList()
        @Suppress("UNCHECKED_CAST")
        return (toArray<Comparable<T>>() as Array<T>).apply {
            sort()
        }.asList()
    }
    return toMutableList().apply {
        sort()
    }
}

```

Returns a list of all elements sorted according to natural sort order of the value returned by specified `[selector]` function. The sort is `_stable_`. It means that equal elements preserve their order relative to each other after sorting.

```

@sample
samples.collections.Collections.Sorting.sortedBy
public inline fun <T, R : Comparable<R>>
    Iterable<T>.sortedBy(crossinline selector: (T) -> R?): List<T> {
    return
        sortedWith(compareBy(selector))
}

```

Returns a list of all elements sorted descending according to natural sort order of the value returned by specified `[selector]` function. The sort is `_stable_`. It means that equal elements preserve their order relative to each other after sorting.

```

public inline fun <T, R : Comparable<R>> Iterable<T>.sortedByDescending(crossinline
    selector: (T) -> R?): List<T> {
    return sortedWith(compareByDescending(selector))
}

```

Returns a list of all elements sorted descending according to their natural sort order. The sort is `_stable_`. It means that equal elements preserve their order relative to each other after sorting.

```

public fun <T : Comparable<T>>
    Iterable<T>.sortedDescending(): List<T> {
    return sortedWith(reverseOrder())
}

```

Returns a list of all elements sorted according to the specified `[comparator]`. The sort is `_stable_`. It means that equal elements preserve their order relative to each other after sorting.

```

public fun <T> Iterable<T>.sortedWith(comparator: Comparator<in T>): List<T> {
    if (this is Collection) {
        if (size <= 1) return this.toList()
        @Suppress("UNCHECKED_CAST")
        return (toArray<Any?>() as Array<T>).apply {
            sortWith(comparator)
        }.asList()
    }
    return toMutableList().apply {
        sortWith(comparator)
    }
}

```

Returns an array of Boolean containing all of the elements of this collection.

```

public fun Collection<Boolean>.toBooleanArray(): BooleanArray {
    val result = BooleanArray(size)
    var index = 0
    for (element in this)
        result[index++] = element
    return result
}

```

Returns an array of Byte containing all of the elements of this collection.

```

public fun Collection<Byte>.toByteArray(): ByteArray {
    val result = ByteArray(size)
    var index = 0
    for (element in this)
        result[index++] = element
    return result
}

```

Returns an array of Char containing all of the elements of this collection.

```

public fun Collection<Char>.toCharArray(): CharArray {
    val result = CharArray(size)
    var index = 0
    for (element in this)
        result[index++] = element
    return result
}

```

Returns an array of Double containing all of the elements of this collection.

```

public fun Collection<Double>.toDoubleArray(): DoubleArray {
    val result = DoubleArray(size)
    var index = 0
    for (element in this)
        result[index++] = element
    return result
}

```

Returns an array of Float containing all of the elements of this collection.

```

public fun Collection<Float>.toFloatArray(): FloatArray {
    val result = FloatArray(size)
    var index = 0
    for (element in this)
        result[index++] = element
    return result
}

```

Returns an array of Int containing all of the elements of this collection.

```

public fun Collection<Int>.toIntArray(): IntArray {
    val result = IntArray(size)
    var index = 0
    for (element in this)
        result[index++] = element
    return result
}

```

Returns an array of Long containing all of the elements of this collection.

```

public fun Collection<Long>.toLongArray(): LongArray {
    val result = LongArray(size)
    var index = 0
    for (element in this)
        result[index++] = element
    return result
}

```

Returns an array of Short containing all of the elements of this collection.

```

public fun Collection<Short>.toShortArray(): ShortArray {
    val result = ShortArray(size)
    var index = 0
    for (element in this)
        result[index++] = element
    return result
}

```

Returns a `[Map]` containing key-value pairs provided by `[transform]` function applied to elements of the given collection. If any of two pairs would

have the same key the last one gets added to the map.

The returned map preserves the entry iteration order of the original collection.

`@sample samples.collections.Collections.Transformations.associate`

```

public inline fun <T, K, V> Iterable<T>.associate(transform: (T) -> Pair<K, V>): Map<K, V> {
    val capacity = mapCapacity(collectionSizeOrDefault(10)).coerceAtLeast(16)
    return associateTo(LinkedHashMap<K, V>(capacity), transform)
}

```

Returns a [Map] containing the elements from the given collection indexed by the key returned from [keySelector] function applied to each element.

If any two elements would have the same key returned by [keySelector] the last one gets added to the map.

The returned map preserves the entry iteration order of the original collection.

`@sample samples.collections.Collections.Transformations.associateBy`

```

public inline fun <T, K> Iterable<T>.associateBy(keySelector: (T) -> K): Map<K, T> {
    val capacity = mapCapacity(collectionSizeOrDefault(10)).coerceAtLeast(16)
    return associateByTo(LinkedHashMap<K, T>(capacity), keySelector)
}

```

Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given collection.

If any two elements would have the same key returned by [keySelector] the last one gets added to the map.

The returned map preserves the entry iteration order of the original collection.

`@sample samples.collections.Collections.Transformations.associateByWithValueTransform`

```

public inline fun <T, K, V> Iterable<T>.associateBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, V> {
    val capacity = mapCapacity(collectionSizeOrDefault(10)).coerceAtLeast(16)
    return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)
}

```

Populates and returns the [destination] mutable map with key-value pairs, where key is provided by the [keySelector] function applied to each element of the given collection and value is the element itself.

If any two elements would have the same key returned by [keySelector] the last one gets added to the map.

`@sample samples.collections.Collections.Transformations.associateByTo`

```

public inline fun <T, K, M : MutableMap<in K, in T>> Iterable<T>.associateByTo(destination: M, keySelector: (T) -> K): M {
    for (element in this) {
        destination.put(keySelector(element), element)
    }
    return destination
}

```

Populates and returns the [destination] mutable map with key-value pairs, where key is provided by the [keySelector] function and value is provided by the [valueTransform] function applied to elements of the given collection.

If any two elements would have the same key returned by [keySelector] the last one gets added to the map.

`@sample samples.collections.Collections.Transformations.associateByToWithValueTransform`

```

public inline fun <T, K, V, M : MutableMap<in K, in V>> Iterable<T>.associateByTo(destination: M, keySelector: (T) -> K, valueTransform: (T) -> V): M {
    for (element in this) {
        destination.put(keySelector(element), valueTransform(element))
    }
    return destination
}

```

Populates and returns the [destination] mutable map with key-value pairs provided by [transform] function applied to each element of the given collection.

If any of two pairs would have the same key the last one gets added to the map.

`@sample samples.collections.Collections.Transformations.associateTo`

```

public inline fun <T, K, V, M : MutableMap<in K, in V>> Iterable<T>.associateTo(destination: M, transform: (T) -> Pair<K, V>): M {
    for (element in this) {
        destination += transform(element)
    }
    return destination
}

```

Returns a [Map] where keys are elements from the given collection and values are produced by the [valueSelector] function applied to each element.

If any two elements are equal, the last one gets added to the map.

The returned map preserves the entry iteration order of the original collection.

`@sample samples.collections.Collections.Transformations.associateWith`

```

@SinceKotlin("1.3")
public inline fun <K, V> Iterable<K>.associateWith(valueSelector: (K) -> V): Map<K, V> {
    val result = LinkedHashMap<K, V>(mapCapacity(collectionSizeOrDefault(10)).coerceAtLeast(16))
    return associateWithTo(result, valueSelector)
}

```

Populates and returns the [destination] mutable map with key-value pairs for each element of the given collection, where key is the element itself and value is provided by the [valueSelector]

```

function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the
map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n
*\n@SinceKotlin("1.3")\npublic inline fun <K, V, M : MutableMap<in K, in V>>
Iterable<K>.associateWithTo(destination: M, valueSelector: (K) -> V): M {\n for (element in this) {\n
destination.put(element, valueSelector(element))\n }\n return destination\n}\n\n/**\n * Appends all
elements to the given [destination] collection.\n */\npublic fun <T, C : MutableCollection<in T>>
Iterable<T>.toCollection(destination: C): C {\n for (item in this) {\n destination.add(item)\n }\n return
destination\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun <T> Iterable<T>.toHashSet():
HashSet<T> {\n return toCollection(HashSet<T>(mapCapacity(collectionSizeOrDefault(12))))\n}\n\n/**\n *
Returns a [List] containing all elements.\n */\npublic fun <T> Iterable<T>.toList(): List<T> {\n if (this is
Collection) {\n return when (size) {\n 0 -> emptyList()\n 1 -> listOf(if (this is List) get(0) else
iterator().next())\n else -> this.toMutableList()\n }\n }\n return
this.toMutableList().optimizeReadOnlyList()\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of
this
collection.\n */\npublic fun <T> Iterable<T>.toMutableList(): MutableList<T> {\n if (this is Collection<T>)\n
return this.toMutableList()\n return toCollection(ArrayList<T>())\n}\n\n/**\n * Returns a new [MutableList] filled
with all elements of this collection.\n */\npublic fun <T> Collection<T>.toMutableList(): MutableList<T> {\n
return ArrayList(this)\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element
iteration order of the original collection.\n */\npublic fun <T> Iterable<T>.toSet(): Set<T> {\n if (this is
Collection) {\n return when (size) {\n 0 -> emptySet()\n 1 -> setOf(if (this is List) this[0] else
iterator().next())\n else -> toCollection(LinkedHashSet<T>(mapCapacity(size)))\n }\n }\n return
toCollection(LinkedHashSet<T>()).optimizeReadOnlySet()\n}\n\n/**\n * Returns a single list of all elements
yielded from results of [transform] function being invoked on
each element of original collection.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n
*/\npublic inline fun <T, R> Iterable<T>.flatMap(transform: (T) -> Iterable<R>): List<R> {\n return
flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of
[transform] function being invoked on each element of original collection.\n * \n * @sample
samples.collections.Collections.Transformations.flatMap\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapSequence")\npublic inline fun <T, R>
Iterable<T>.flatMap(transform: (T) -> Sequence<R>): List<R> {\n return flatMapTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being
invoked on each element\n * and its index in the original collection.\n * \n * @sample
samples.collections.Collections.Transformations.flatMapIndexed\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedIterable")\n@kotlin.internal.InlineOnly\npublic
inline fun <T, R> Iterable<T>.flatMapIndexed(transform: (index: Int, T) -> Iterable<R>): List<R> {\n return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from
results of [transform] function being invoked on each element\n * and its index in the original collection.\n * \n *
@sample samples.collections.Collections.Transformations.flatMapIndexed\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedSequence")\n@kotlin.internal.InlineOnly\npubli
c inline fun <T, R> Iterable<T>.flatMapIndexed(transform: (index: Int, T) -> Sequence<R>): List<R> {\n return
flatMapIndexedTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each
element\n * and its index in the original collection, to the given [destination].\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedIterableTo")\n@kotlin.internal.InlineOnly\npubli

```





```

list.add(valueTransform(element))\n } \n return destination\n}\n\n/**\n * Creates a [Grouping] source from a
collection to be used later with one of group-and-fold operations\n * using the specified [keySelector] function to
extract a key from each element.\n * \n * @sample samples.collections.Grouping.groupingByEachCount\n
*\n * @SinceKotlin("1.1")\npublic inline fun <T, K> Iterable<T>.groupingBy(crossinline keySelector: (T) -> K):
Grouping<T, K> {\n return object : Grouping<T, K> {\n override fun sourceIterator(): Iterator<T> =
this@groupingBy.iterator()\n override fun keyOf(element: T): K = keySelector(element)\n }\n}\n\n/**\n *
Returns a list containing the results of applying the given [transform] function\n * to each element in the original
collection.\n
\n * \n * @sample samples.collections.Collections.Transformations.map\n *\npublic inline fun <T, R>
Iterable<T>.map(transform: (T) -> R): List<R> {\n return mapTo(ArrayList<R>(collectionSizeOrDefault(10)),
transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each
element and its index in the original collection.\n * @param [transform] function that takes the index of an element
and the element itself\n * and returns the result of the transform applied to the element.\n *\npublic inline fun <T,
R> Iterable<T>.mapIndexed(transform: (index: Int, T) -> R): List<R> {\n return
mapIndexedTo(ArrayList<R>(collectionSizeOrDefault(10)), transform)\n}\n\n/**\n * Returns a list containing only
the non-null results of applying the given [transform] function\n * to each element and its index in the original
collection.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns
the result
of the transform applied to the element.\n *\npublic inline fun <T, R : Any>
Iterable<T>.mapIndexedNotNull(transform: (index: Int, T) -> R?): List<R> {\n return
mapIndexedNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given [transform] function to each
element and its index in the original collection\n * and appends only the non-null results to the given [destination].\n
\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of
the transform applied to the element.\n *\npublic inline fun <T, R : Any, C : MutableCollection<in R>>
Iterable<T>.mapIndexedNotNullTo(destination: C, transform: (index: Int, T) -> R?): C {\n forEachIndexed {
index, element -> transform(index, element)?.let { destination.add(it) } }\n return destination\n}\n\n/**\n *
Applies the given [transform] function to each element and its index in the original collection\n * and appends the
results to the given [destination].\n * @param
[transform] function that takes the index of an element and the element itself\n * and returns the result of the
transform applied to the element.\n *\npublic inline fun <T, R, C : MutableCollection<in R>>
Iterable<T>.mapIndexedTo(destination: C, transform: (index: Int, T) -> R): C {\n var index = 0\n for (item in
this)\n destination.add(transform(checkIndexOverflow(index++), item))\n return destination\n}\n\n/**\n * Returns a list containing only the non-null results of applying the given [transform] function\n * to each element in
the original collection.\n * \n * @sample samples.collections.Collections.Transformations.mapNotNull\n *\npublic
inline fun <T, R : Any> Iterable<T>.mapNotNull(transform: (T) -> R?): List<R> {\n return
mapNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given [transform] function to each element in
the original collection\n * and appends only the non-null results to the given [destination].\n *\npublic inline fun
<T, R
: Any, C : MutableCollection<in R>> Iterable<T>.mapNotNullTo(destination: C, transform: (T) -> R?): C {\n
forEach { element -> transform(element)?.let { destination.add(it) } }\n return destination\n}\n\n/**\n * Applies
the given [transform] function to each element of the original collection\n * and appends the results to the given
[destination].\n *\npublic inline fun <T, R, C : MutableCollection<in R>> Iterable<T>.mapTo(destination: C,
transform: (T) -> R): C {\n for (item in this)\n destination.add(transform(item))\n return
destination\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original collection\n * into an
[IndexValue] containing the index of that element and the element itself.\n *\npublic fun <T>
Iterable<T>.withIndex(): Iterable<IndexedValue<T>> {\n return IndexingIterable { iterator() }\n}\n\n/**\n *
Returns a list containing only distinct elements from the given collection.\n * \n * Among equal elements of the
given collection,

```

only the first one will be present in the resulting list.\n \* The elements in the resulting list are in the same order as they were in the source collection.\n \* \n \* @sample

```

samples.collections.Collections.Transformations.distinctAndDistinctBy\n * \npublic fun <T> Iterable<T>.distinct(): List<T> {\n    return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only elements from the given collection\n * having distinct keys returned by the given [selector] function.\n * \n * Among elements of the given collection with equal keys, only the first one will be present in the resulting list.\n * The elements in the resulting list are in the same order as they were in the source collection.\n * \n * @sample
samples.collections.Collections.Transformations.distinctAndDistinctBy\n * \npublic inline fun <T, K> Iterable<T>.distinctBy(selector: (T) -> K): List<T> {\n    val set = HashSet<K>()\n    val list = ArrayList<T>()\n    for (e in this) {\n        val key = selector(e)\n        if (set.add(key))\n            list.add(e)\n    }\n    return list\n}\n\n/**\n * Returns a set containing all elements that are contained by both this collection and the specified collection.\n * \n * The returned set preserves the element iteration order of the original collection.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n * \npublic infix fun <T> Iterable<T>.intersect(other: Iterable<T>): Set<T> {\n    val set = this.toMutableSet()\n    set.retainAll(other)\n    return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this collection and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original collection.\n * \npublic infix fun <T> Iterable<T>.subtract(other: Iterable<T>): Set<T> {\n    val set = this.toMutableSet()\n    set.removeAll(other)\n    return set\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given collection.\n * \n * The returned set preserves the element iteration order of the original collection.\n * \npublic fun <T> Iterable<T>.toMutableSet(): MutableSet<T> {\n    return when (this) {\n        is Collection<T> -> LinkedHashSet(this)\n        else -> toCollection(LinkedHashSet<T>())\n    }\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original collection.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n * \npublic infix fun <T> Iterable<T>.union(other: Iterable<T>): Set<T> {\n    val set = this.toMutableSet()\n    set.addAll(other)\n    return set\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n * \npublic inline fun <T> Iterable<T>.all(predicate: (T) -> Boolean): Boolean {\n    if (this is Collection && isEmpty()) return true\n    for (element in this) if (!predicate(element)) return false\n    return true\n}\n\n/**\n * Returns `true` if collection has at least one element.\n * \n * @sample
samples.collections.Collections.Aggregates.any\n * \npublic fun <T> Iterable<T>.any(): Boolean {\n    if (this is Collection) return !isEmpty()\n    return iterator().hasNext()\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n * \npublic inline fun <T> Iterable<T>.any(predicate: (T) -> Boolean): Boolean {\n    if (this is Collection && isEmpty()) return false\n    for (element in this) if (predicate(element)) return true\n    return false\n}\n\n/**\n * Returns the number of elements in this collection.\n * \npublic fun <T> Iterable<T>.count(): Int {\n    if (this is Collection) return size\n    var count = 0\n    for (element in this) checkCountOverflow(++count)\n    return count\n}\n\n/**\n * Returns the number of elements in this collection.\n * \n * \n * @kotlin.internal.InlineOnly\n * \npublic inline fun <T> Collection<T>.count(): Int {\n    return size\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n * \npublic inline fun <T> Iterable<T>.count(predicate: (T) -> Boolean): Int {\n    if (this is Collection && isEmpty()) return 0\n    var count = 0\n    for (element in this) if (predicate(element)) checkCountOverflow(++count)\n    return count\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the collection is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */

```

```

*  

public inline fun <T, R> Iterable<T>.fold(initial: R, operation: (acc: R, T) -> R): R {  

    var accumulator = initial  

    for (element in this) accumulator = operation(accumulator, element)  

    return accumulator  

}
  

/** Accumulates value starting with [initial] value and applying [operation] from left to right  

* to current accumulator value and each element with its index in the original collection.  

* Returns the specified [initial] value if the collection is empty.  

* @param [operation] function that takes the index of an element, current accumulator  

value and the element itself, and calculates the next accumulator value.
*/
public inline fun <T, R> Iterable<T>.foldIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): R {  

    var index = 0  

    var accumulator = initial  

    for (element in this) accumulator = operation(checkIndexOverflow(index++), accumulator,  

element)  

    return accumulator  

}
  

/** Accumulates value starting with [initial] value and applying [operation] from right to left  

* to each element and current accumulator value.  

* Returns the specified [initial] value if the list is empty.  

* @param [operation] function that takes an element and current accumulator value,  

and calculates the next accumulator value.
*/
public inline fun <T, R> List<T>.foldRight(initial: R, operation: (T, acc: R) -> R): R {  

    var accumulator = initial  

    if (!isEmpty()) {  

        val iterator = listIterator(size)  

        while (iterator.hasPrevious()) {  

            accumulator = operation(iterator.previous(), accumulator)  

        }  

    }  

    return accumulator  

}
  

/** Accumulates value starting with [initial] value and applying [operation] from right to left  

* to each element with its index in the original list and current accumulator value.  

* Returns the specified [initial] value if the list is empty.  

* @param [operation] function that takes the index of an element, the element itself  

* and current accumulator value, and calculates the next accumulator value.
*/
public inline fun <T, R> List<T>.foldRightIndexed(initial: R, operation: (index: Int, T, acc: R) -> R): R {  

    var accumulator = initial  

    if (!isEmpty()) {  

        val iterator = listIterator(size)  

        while (iterator.hasPrevious()) {  

            val index = iterator.previousIndex()  

            accumulator = operation(index, iterator.previous(), accumulator)  

        }  

    }  

    return accumulator  

}
  

/** Performs the given [action] on each element.
*/
@kotlin.internal.HidesMembers  

public inline fun <T> Iterable<T>.forEach(action: (T) -> Unit): Unit {  

    for (element in this) action(element)  

}
  

/** Performs the given [action] on each element, providing sequential index with the element.  

* @param [action] function that takes the index of an element and the element itself  

and performs the action on the element.
*/
public inline fun <T> Iterable<T>.forEachIndexed(action: (index: Int, T) -> Unit): Unit {  

    var index = 0  

    for (item in this) action(checkIndexOverflow(index++), item)  

}
  

@Deprecated("Use maxOrNull instead.")  

ReplaceWith("this.maxOrNull()")  

@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5", hiddenSince = "1.6")  

@SinceKotlin("1.1")  

public fun Iterable<Double>.max(): Double? {  

    return maxOrNull()  

}
  

@Deprecated("Use maxOrNull instead.")  

ReplaceWith("this.maxOrNull()")  

@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5", hiddenSince = "1.6")  

@SinceKotlin("1.1")  

public fun Iterable<Float>.max(): Float? {  

    return maxOrNull()  

}
  

@Deprecated("Use maxOrNull instead.")  

ReplaceWith("this.maxOrNull()")  

@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5", hiddenSince = "1.6")  

public fun <T : Comparable<T>> Iterable<T>.max(): T? {  

    return maxOrNull()  

}
  

@Deprecated("Use maxByOrNull instead.")  

ReplaceWith("this.maxByOrNull(selector)")  

@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5", hiddenSince = "1.6")  

public inline fun <T, R : Comparable<R>> Iterable<T>.maxBy(selector: (T) -> R): T? {  

    return maxByOrNull(selector)  

}
  

/** Returns the first element yielding the largest value of the given function or `null` if there are no elements.  

* @sample samples.collections.Collections.Aggregates.maxByOrNull
*/
@SinceKotlin("1.4")  

public inline fun <T, R : Comparable<R>> Iterable<T>.maxByOrNull(selector: (T) -> R): T? {  

    val iterator = iterator()  

    if (!iterator.hasNext()) return null  

    var maxElem = iterator.next()  

    if (!iterator.hasNext()) return maxElem  

    var maxV = selector(maxElem)  

    do {  

        val e = iterator.next()  

        val v = selector(e)  

        if (maxV < v) {  

            maxElem = e  

            maxV = v  

        }  

    } while (iterator.hasNext())  

    return maxElem  

}
  

/** Returns the largest value
*/

```

among all values produced by [selector] function\n \* applied to each element in the collection.\n \* \n \* If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n \* \n \* @throws NoSuchElementException if the collection is empty.\n

```

*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.maxOf(selector: (T) ->
Double): Double {\n    val iterator = iterator()\n    if (!iterator.hasNext()) throw NoSuchElementException()\n    var
maxValue = selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v = selector(iterator.next())\n
maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all
values produced by [selector] function\n * applied to each element in the collection.\n * \n * If any of values
produced by [selector] function is `NaN`, the returned result
is `NaN`.\n * \n * @throws NoSuchElementException if the collection is empty.\n

```

```

*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.maxOf(selector: (T) ->
Float): Float {\n    val iterator = iterator()\n    if (!iterator.hasNext()) throw NoSuchElementException()\n    var
maxValue = selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v = selector(iterator.next())\n
maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all
values produced by [selector] function\n * applied to each element in the collection.\n * \n * @throws
NoSuchElementException if the collection is empty.\n

```

```

*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>>
Iterable<T>.maxOf(selector:
(T) -> R): R {\n    val iterator = iterator()\n    if (!iterator.hasNext()) throw NoSuchElementException()\n    var
maxValue = selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v = selector(iterator.next())\n
if (maxValue < v) {\n            maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value
among all values produced by [selector] function\n * applied to each element in the collection or `null` if there are
no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n

```

```

*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.maxOfOrNull(selector: (T)
-> Double): Double? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var maxValue =
selector(iterator.next())\n    while (iterator.hasNext())\n        {\n            val v = selector(iterator.next())\n
            maxValue = maxOf(maxValue, v)\n        }\n    return
maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to
each element in the collection or `null` if there are no elements.\n * \n * If any of values produced by [selector]
function is `NaN`, the returned result is `NaN`.\n

```

```

*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.maxOfOrNull(selector: (T)
-> Float): Float? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var maxValue =
selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v = selector(iterator.next())\n
maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced
by [selector] function\n * applied to each
element in the collection or `null` if there are no elements.\n

```

```

*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>>
Iterable<T>.maxOfOrNull(selector: (T) -> R): R? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return
null\n    var maxValue = selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v =
selector(iterator.next())\n        if (maxValue < v) {\n            maxValue = v\n        }\n    }\n    return
maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values
produced by [selector] function applied to each element in the collection.\n * \n * @throws

```

NoSuchElementException if the collection is empty.

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
```

```
inline fun <T, R> Iterable<T>.maxOfWith(comparator: Comparator<in R>, selector: (T) -> R): R {\n    val iterator = iterator()\n    if (!iterator.hasNext()) throw NoSuchElementException()\n    var max = selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v = selector(iterator.next())\n        if (comparator.compare(max, v) < 0) {\n            max = v\n        }\n    }\n    return max\n}\n/**\n * Returns the largest value according to the provided [comparator] * among all values produced by [selector] function applied to each element in the collection or `null` if there are no elements.\n */
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R>
```

```
Iterable<T>.maxOfOrNull(comparator: Comparator<in R>, selector: (T) -> R): R? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var max = selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v = selector(iterator.next())\n        if (comparator.compare(max, v) < 0) {\n            max = v\n        }\n    }\n    return max\n}\n/**\n * Returns the largest element or `null` if there are no elements.\n * * If any of elements is `NaN` returns `NaN`.\n */
```

```
*\n@SinceKotlin("1.4")\npublic fun Iterable<Double>.maxOrNull(): Double? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var max = iterator.next()\n    while (iterator.hasNext()) {\n        val e = iterator.next()\n        max = maxOf(max, e)\n    }\n    return max\n}\n/**\n * Returns the largest element or `null` if there are no elements.\n * * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin("1.4")\npublic fun Iterable<Float>.maxOrNull(): Float? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var max = iterator.next()\n    while (iterator.hasNext())
```

```
{\n    val e = iterator.next()\n    max = maxOf(max, e)\n}\nreturn max\n}\n/**\n * Returns the largest element or `null` if there are no elements.\n */
```

```
*\n@SinceKotlin("1.4")\npublic fun <T : Comparable<T>>\nIterable<T>.maxOrNull(): T? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var max = iterator.next()\n    while (iterator.hasNext()) {\n        val e = iterator.next()\n        if (max < e) max = e\n    }\n    return max\n}\n@Deprecated("Use maxWithOrNull instead.")
```

```
ReplaceWith("this.maxWithOrNull(comparator)")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5", hiddenSince = "1.6")\npublic fun <T> Iterable<T>.maxWith(comparator: Comparator<in T>): T? {\n    return maxWithOrNull(comparator)\n}\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin("1.4")\npublic fun <T>
```

```
Iterable<T>.maxWithOrNull(comparator:
```

```
Comparator<in T>): T? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var max = iterator.next()\n    while (iterator.hasNext()) {\n        val e = iterator.next()\n        if (comparator.compare(max, e) < 0) max = e\n    }\n    return max\n}\n@Deprecated("Use minOrNull instead.")
```

```
ReplaceWith("this.minOrNull()")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5", hiddenSince = "1.6")\n@SinceKotlin("1.1")\npublic fun Iterable<Double>.min(): Double? {\n    return minOrNull()\n}\n@Deprecated("Use minOrNull instead.")
```

```
ReplaceWith("this.minOrNull()")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5", hiddenSince = "1.6")\n@SinceKotlin("1.1")\npublic fun Iterable<Float>.min(): Float? {\n    return minOrNull()\n}\n@Deprecated("Use minOrNull instead.")
```

```
ReplaceWith("this.minOrNull()")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5", hiddenSince = "1.6")\npublic fun
```

```
<T : Comparable<T>> Iterable<T>.min(): T? {\n    return minOrNull()\n}\n@Deprecated("Use minByOrNull instead.")\nReplaceWith("this.minByOrNull(selector)")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5", hiddenSince = "1.6")\npublic inline fun <T, R : Comparable<R>>
```

```
Iterable<T>.minBy(selector: (T) -> R): T? {\n    return minByOrNull(selector)\n}\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * * @sample
```

```

samples.collections.Collections.Aggregates.minByOrNull\n *\n@SinceKotlin("1.4")\npublic inline fun <T, R :
Comparable<R>> Iterable<T>.minByOrNull(selector: (T) -> R): T? {\n  val iterator = iterator()\n  if
(!iterator.hasNext()) return null\n  var minElem = iterator.next()\n  if (!iterator.hasNext()) return minElem\n  var
minValue = selector(minElem)\n  do {\n    val e = iterator.next()\n    val v = selector(e)\n    if (minValue >
v) {\n      minElem
= e\n      minValue = v\n    }\n  } while (iterator.hasNext())\n  return minElem\n}\n\n/**\n * Returns the
smallest value among all values produced by [selector] function\n * applied to each element in the collection.\n *
\n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws
NoSuchElementException if the collection is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.minOf(selector: (T) ->
Double): Double {\n  val iterator = iterator()\n  if (!iterator.hasNext()) throw NoSuchElementException()\n  var
minValue = selector(iterator.next())\n  while (iterator.hasNext()) {\n    val v = selector(iterator.next())\n
minValue = minOf(minValue, v)\n  }\n  return minValue\n}\n\n/**\n * Returns the smallest value among all
values produced by [selector]
function\n * applied to each element in the collection.\n * \n * If any of values produced by [selector] function is
`NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the collection is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.minOf(selector: (T) ->
Float): Float {\n  val iterator = iterator()\n  if (!iterator.hasNext()) throw NoSuchElementException()\n  var
minValue = selector(iterator.next())\n  while (iterator.hasNext()) {\n    val v = selector(iterator.next())\n
minValue = minOf(minValue, v)\n  }\n  return minValue\n}\n\n/**\n * Returns the smallest value among all
values produced by [selector] function\n * applied to each element in the collection.\n * \n * @throws
NoSuchElementException if the collection is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <T, R : Comparable<R>> Iterable<T>.minOf(selector: (T) -> R): R {\n  val iterator = iterator()\n  if
(!iterator.hasNext()) throw NoSuchElementException()\n  var minValue = selector(iterator.next())\n  while
(iterator.hasNext()) {\n    val v = selector(iterator.next())\n    if (minValue > v) {\n      minValue = v\n
    }\n  }\n  return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector]
function\n * applied to each element in the collection or `null` if there are no elements.\n * \n * If any of values
produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.minOfOrNull(selector: (T)
-> Double): Double?
{\n  val iterator = iterator()\n  if (!iterator.hasNext()) return null\n  var minValue = selector(iterator.next())\n
while (iterator.hasNext()) {\n    val v = selector(iterator.next())\n    minValue = minOf(minValue, v)\n  }\n
return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n *
applied to each element in the collection or `null` if there are no elements.\n * \n * If any of values produced
by [selector] function is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.minOfOrNull(selector: (T)
-> Float): Float? {\n  val iterator = iterator()\n  if (!iterator.hasNext()) return null\n  var minValue =
selector(iterator.next())\n  while (iterator.hasNext()) {\n    val v = selector(iterator.next())\n    minValue =
minOf(minValue,
v)\n  }\n  return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector]
function\n * applied to each element in the collection or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

```

```

ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>>
Iterable<T>.minOrNull(selector: (T) -> R): R? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return
null\n    var minValue = selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v =
selector(iterator.next())\n        if (minValue > v) {\n            minValue = v\n        }\n    }\n    return
minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values
produced by [selector] function applied to each element in the collection.\n * \n * @throws
NoSuchElementException if the collection is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <T, R> Iterable<T>.minOfWith(comparator: Comparator<in R>, selector: (T) -> R): R {\n    val iterator
= iterator()\n    if (!iterator.hasNext()) throw NoSuchElementException()\n    var minValue =
selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v = selector(iterator.next())\n        if
(comparator.compare(minValue, v) > 0) {\n            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the collection or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R>
Iterable<T>.minOfOrNull(comparator:
Comparator<in R>, selector: (T) -> R): R? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n
var minValue = selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v = selector(iterator.next())\n
if (comparator.compare(minValue, v) > 0) {\n            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n
*\n@SinceKotlin("1.4")\npublic fun Iterable<Double>.minOrNull(): Double? {\n    val iterator = iterator()\n    if
(!iterator.hasNext()) return null\n    var min = iterator.next()\n    while (iterator.hasNext()) {\n        val e =
iterator.next()\n        min = minOf(min, e)\n    }\n    return min\n}\n\n/**\n * Returns the smallest element or `null` if
there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n * \n *\n@SinceKotlin("1.4")\npublic fun
Iterable<Float>.minOrNull():
Float? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var min = iterator.next()\n    while
(iterator.hasNext()) {\n        val e = iterator.next()\n        min = minOf(min, e)\n    }\n    return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\npublic fun <T :
Comparable<T>> Iterable<T>.minOrNull(): T? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n
var min = iterator.next()\n    while (iterator.hasNext()) {\n        val e = iterator.next()\n        if (min > e) min = e\n
}\n    return min\n}\n\n@Deprecated("Use minWithOrNull instead.")
ReplaceWith("this.minWithOrNull(comparator)")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince
= "1.5", hiddenSince = "1.6")\npublic fun <T> Iterable<T>.minWith(comparator: Comparator<in T>): T? {\n    return
minWithOrNull(comparator)\n}\n\n/**\n * Returns the first element having the smallest
value according to the provided [comparator] or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\npublic
fun <T> Iterable<T>.minWithOrNull(comparator: Comparator<in T>): T? {\n    val iterator = iterator()\n    if
(!iterator.hasNext()) return null\n    var min = iterator.next()\n    while (iterator.hasNext()) {\n        val e =
iterator.next()\n        if (comparator.compare(min, e) > 0) min = e\n    }\n    return min\n}\n\n/**\n * Returns `true` if
the collection has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n *\npublic fun
<T> Iterable<T>.none(): Boolean {\n    if (this is Collection) return isEmpty()\n    return
!iterator().hasNext()\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n *\npublic inline fun <T>
Iterable<T>.none(predicate: (T) -> Boolean): Boolean {\n    if (this is Collection && isEmpty()) return true\n    for
(element
in this) if (predicate(element)) return false\n    return true\n}\n\n/**\n * Performs the given [action] on each element
and returns the collection itself afterwards.\n * \n *\n@SinceKotlin("1.1")\npublic inline fun <T, C : Iterable<T>>

```





```
(!iterator.hasPrevious())\n    throw UnsupportedOperationException("Empty list can't be reduced.")\n    var accumulator: S = iterator.previous()\n    while (iterator.hasPrevious()) {\n        accumulator = operation(iterator.previous(), accumulator)\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element with its index in the original list and current accumulator value.\n * \n * Throws an exception if this list is empty. If the list can be empty in an expected way,\n * please use [reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation]
```

```
function that takes the index of an element, the element itself and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n *\npublic inline fun <S, T : S> List<T>.reduceRightIndexed(operation: (index: Int, T, acc: S) -> S): S {\n    val iterator = listIterator(size)\n    if (!iterator.hasPrevious())\n        throw UnsupportedOperationException("Empty list can't be reduced.")\n    var accumulator: S = iterator.previous()\n    while (iterator.hasPrevious()) {\n        val index = iterator.previousIndex()\n        accumulator = operation(index, iterator.previous(), accumulator)\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element with its index in the original list and current accumulator value.\n * \n * Returns `null` if the list is empty.\n * \n * @param [operation] function that takes
```

```
the index of an element, the element itself and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n *\n@SinceKotlin("1.4")\npublic inline fun <S, T : S> List<T>.reduceRightIndexedOrNull(operation: (index: Int, T, acc: S) -> S): S? {\n    val iterator = listIterator(size)\n    if (!iterator.hasPrevious())\n        return null\n    var accumulator: S = iterator.previous()\n    while (iterator.hasPrevious()) {\n        val index = iterator.previousIndex()\n        accumulator = operation(index, iterator.previous(), accumulator)\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns `null` if the list is empty.\n * \n * @param [operation] function that
```

```
takes an element and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n *\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <S, T : S> List<T>.reduceRightOrNull(operation: (T, acc: S) -> S): S? {\n    val iterator = listIterator(size)\n    if (!iterator.hasPrevious())\n        return null\n    var accumulator: S = iterator.previous()\n    while (iterator.hasPrevious()) {\n        accumulator = operation(iterator.previous(), accumulator)\n    }\n    return accumulator\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the
```

```
next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n *\n@SinceKotlin("1.4")\npublic inline fun <T, R> Iterable<T>.runningFold(initial: R, operation: (acc: R, T) -> R): List<R> {\n    val estimatedSize = collectionSizeOrDefault(9)\n    if (estimatedSize == 0) return listOf(initial)\n    val result = ArrayList<R>(estimatedSize + 1).apply { add(initial) }\n    var accumulator = initial\n    for (element in this) {\n        accumulator = operation(accumulator, element)\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original collection and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation]
```

```
function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n *\n@SinceKotlin("1.4")\npublic inline fun <T, R> Iterable<T>.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): List<R> {\n    val estimatedSize = collectionSizeOrDefault(9)\n    if (estimatedSize == 0)
```

```
return listOf(initial)\n    val result = ArrayList<R>(estimatedSize + 1).apply { add(initial) }\n    var accumulator = initial\n    for (element in this) {\n        accumulator = operation(accumulator, element)\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original collection and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation]
```

```
function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n *\n@SinceKotlin("1.4")\npublic inline fun <T, R> Iterable<T>.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): List<R> {\n    val estimatedSize = collectionSizeOrDefault(9)\n    if (estimatedSize == 0)
```

```

return listOf(initial)\n    val result = ArrayList<R>(estimatedSize + 1).apply { add(initial) }\n    var index = 0\n    var accumulator = initial\n    for (element in this) {\n        accumulator = operation(index++, accumulator, element)\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this collection.\n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * @param [operation] function that takes current accumulator value and the element, and calculates the next accumulator value.\n * @sample\n samples.collections.Collections.Aggregates.runningReduce\n\n*/\n\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <S, T : S> Iterable<T>.runningReduce(operation: (acc: S, T) -> S): List<S> {\n    val iterator = this.iterator()\n    if (!iterator.hasNext()) return emptyList()\n    var accumulator: S = iterator.next()\n    val result = ArrayList<S>(collectionSizeOrDefault(10)).apply { add(accumulator) }\n    while (iterator.hasNext()) {\n        accumulator = operation(accumulator, iterator.next())\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original collection and current accumulator value that starts with the first element of this collection.\n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * @sample\n samples.collections.Collections.Aggregates.runningReduce\n\n*/\n\n@SinceKotlin("1.4")\npublic inline fun <S, T : S> Iterable<T>.runningReduceIndexed(operation: (index: Int, acc: S, T) -> S): List<S> {\n    val iterator = this.iterator()\n    if (!iterator.hasNext()) return emptyList()\n    var accumulator: S = iterator.next()\n    val result = ArrayList<S>(collectionSizeOrDefault(10)).apply { add(accumulator) }\n    var index = 1\n    while (iterator.hasNext()) {\n        accumulator = operation(index++, accumulator, iterator.next())\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * @sample\n samples.collections.Collections.Aggregates.scan\n\n*/\n\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <T, R> Iterable<T>.scan(initial: R, operation: (acc: R, T) -> R): List<R> {\n    return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original collection and current accumulator value that starts with [initial] value.\n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * @sample\n samples.collections.Collections.Aggregates.scan\n\n*/\n\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <T, R> Iterable<T>.scanIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): List<R> {\n    return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the collection.\n * @Deprecated("Use sumOf instead.")\n * ReplaceWith("this.sumOf(selector)")\n * @DeprecatedSinceKotlin(warningSince = "1.5")\n * public inline fun <T> Iterable<T>.sumBy(selector: (T) -> Int): Int\n * var sum: Int = 0\n * for (element in this) {\n *     sum += selector(element)\n * }\n * return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the collection.\n * @Deprecated("Use sumOf instead.")\n
```

```

ReplaceWith("this.sumOf(selector)")\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline fun <T>
Iterable<T>.sumByDouble(selector: (T) -> Double): Double {\n    var sum: Double = 0.0\n    for (element in this)
{\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the collection.\n
*\n*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfDouble")\n@kotlin.internal.InlineOnly\npublic inline fun
<T> Iterable<T>.sumOf(selector: (T) -> Double): Double {\n    var
sum: Double = 0.toDouble()\n    for (element in this) {\n        sum += selector(element)\n    }\n    return
sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the
collection.\n
*\n*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfInt")\n@kotlin.internal.InlineOnly\npublic inline fun <T>
Iterable<T>.sumOf(selector: (T) -> Int): Int {\n    var sum: Int = 0.toInt()\n    for (element in this) {\n        sum +=
selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the collection.\n
*\n*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfLong")\n@kotlin.internal.InlineOnly\npublic inline fun
<T> Iterable<T>.sumOf(selector: (T) -> Long): Long {\n
var sum: Long = 0.toLong()\n    for (element in this) {\n        sum += selector(element)\n    }\n    return
sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the
collection.\n
*\n*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfUInt")\n@WasExperimental(ExperimentalUnsignedType
s::class)\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.sumOf(selector: (T) -> UInt): UInt {\n
var sum: UInt = 0.toUInt()\n    for (element in this) {\n        sum += selector(element)\n    }\n    return
sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the
collection.\n
*\n*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfULong")\n@WasExperimental(ExperimentalUnsignedTy
pes::class)\n@kotlin.internal.InlineOnly\npublic
inline fun <T> Iterable<T>.sumOf(selector: (T) -> ULong): ULong {\n    var sum: ULong = 0.toULong()\n    for
(element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns an original collection
containing all the non-`null` elements, throwing an [IllegalArgumentException] if there are any `null` elements.\n
*\n*\npublic fun <T : Any> Iterable<T?.>.requireNonNulls(): Iterable<T> {\n    for (element in this) {\n        if (element
== null) {\n            throw IllegalArgumentException("null element found in $this.")\n        }\n    }\n    @Suppress("UNCHECKED_CAST")\n    return this as Iterable<T>\n}\n\n/**\n * Returns an original collection
containing all the non-`null` elements, throwing an [IllegalArgumentException] if there are any `null` elements.\n
*\n*\npublic fun <T : Any> List<T?.>.requireNonNulls(): List<T> {\n    for (element in this) {\n        if (element ==
null) {\n            throw IllegalArgumentException("null
element found in $this.")\n        }\n    }\n    @Suppress("UNCHECKED_CAST")\n    return this as
List<T>\n}\n\n/**\n * Splits this collection into a list of lists each not exceeding the given [size].\n * \n * The last
list in the resulting list may have fewer elements than the given [size].\n * \n * @param size the number of elements
to take in each list, must be positive and can be greater than the number of elements in this collection.\n * \n *
@sample samples.collections.Collections.Transformations.chunked\n *\n*\n@SinceKotlin("1.2")\npublic fun <T>
Iterable<T>.chunked(size: Int): List<List<T>> {\n    return windowed(size, size, partialWindows = true)\n}\n\n/**\n
* Splits this collection into several lists each not exceeding the given [size]\n * and applies the given [transform]
function to an each.\n * \n * @return list of results of the [transform] applied to an each list.\n * \n * Note that the
list passed to the [transform] function is ephemeral and is valid

```

only inside that function.

You should not store it or allow it to escape in some way, unless you made a snapshot of it.

The last list may have fewer elements than the given [size].

@param size the number of elements to take in each list, must be positive and can be greater than the number of elements in this collection.

@sample samples.text.Strings.chunkedTransform

```


@SinceKotlin("1.2")
public fun <T, R>
Iterable<T>.chunked(size: Int, transform: (List<T>) -> R): List<R> {
    return windowed(size, size,
partialWindows = true, transform = transform)
}


```

Returns a list containing all elements of the original collection without the first occurrence of the given [element].

```


public operator fun <T>
Iterable<T>.minus(element: T): List<T> {
    val result = ArrayList<T>(collectionSizeOrDefault(10))
    var removed = false
    return this.filterTo(result) { if (!removed && it == element) { removed = true; false } else true }
}


```

Returns a list containing all elements of the original collection except the elements contained in the given [elements] array.

Before Kotlin 1.6, the [elements] array may have been converted to a [HashSet] to speed up the operation, thus the elements were required to have a correct and stable implementation of `hashCode()` that didn't change between successive invocations.

On JVM, you can enable this behavior back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.

```


public operator fun <T>
Iterable<T>.minus(elements: Array<out T>): List<T> {
    if (elements.isEmpty()) return this.toList()
    val other = elements.convertToSetForSetOperation()
    return this.filterNot { it in other }
}


```

Returns a list containing all elements of the original collection except the elements contained in the given [elements] collection.

Before Kotlin 1.6, the [elements] collection may have been converted to a [HashSet] to speed up the operation, thus the elements were required to have a correct and stable implementation of `hashCode()` that didn't change between successive invocations.

On JVM, you can enable this behavior back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.

```


public operator fun <T>
Iterable<T>.minus(elements: Iterable<T>): List<T> {
    val other = elements.convertToSetForSetOperationWith(this)
    if (other.isEmpty()) return this.toList()
    return this.filterNot { it in other }
}


```

Returns a list containing all elements of the original collection except the elements contained in the given [elements] sequence.

Before Kotlin 1.6, the [elements] sequence may have been converted to a [HashSet] to speed up the operation, thus the elements were required to have a correct and stable implementation of `hashCode()` that didn't change between successive invocations.

On JVM, you can enable this behavior back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.

```


public operator fun <T>
Iterable<T>.minus(elements: Sequence<T>): List<T> {
    val other = elements.convertToSetForSetOperation()
    if (other.isEmpty()) return this.toList()
    return this.filterNot { it in other }
}


```

Returns a list containing all elements of the original collection without the first occurrence of the given [element].

```


@kotlin.internal.InlineOnly
public inline fun <T>
Iterable<T>.minusElement(element: T): List<T> {
    return minus(element)
}


```

Splits the original collection into pair of lists, where `first` list contains elements for which [predicate] yielded `true`, while `second` list contains elements for which [predicate] yielded `false`.

@sample samples.collections.Iterables.Operations.partition

```


public inline fun <T>
Iterable<T>.partition(predicate: (T) -> Boolean): Pair<List<T>, List<T>> {
    val first = ArrayList<T>()
    val second = ArrayList<T>()
    for (element in this) {
        if (predicate(element)) first.add(element)
        else second.add(element)
    }
    return Pair(first, second)
}


```

Returns a list containing all elements of the original collection and then the given [element].

```


public operator fun <T>
Iterable<T>.plus(element: T): List<T> {
    if (this is Collection) return this.plus(element)
    val result = ArrayList<T>()
    result.addAll(this)
    result.add(element)
    return result
}


```

Returns a list containing all elements of the original collection and then the given [element].

```


public operator fun <T>
Collection<T>.plus(element: T): List<T> {
    val result = ArrayList<T>(size + 1)
    result.addAll(this)
    result.add(element)
    return result
}


```

Returns a list containing all elements of the original collection and then all elements of the

```

given [elements] array.\n *^\npublic operator fun <T> Iterable<T>.plus(elements: Array<out T>): List<T> {\n  if
(this is Collection) return this.plus(elements)\n  val result = ArrayList<T>()\n  result.addAll(this)\n
result.addAll(elements)\n  return result\n}\n\n/**\n * Returns a list containing all elements of the original
collection and then all elements of the given [elements] array.\n *^\npublic operator fun <T>
Collection<T>.plus(elements: Array<out T>): List<T> {\n  val result = ArrayList<T>(this.size + elements.size)\n
result.addAll(this)\n  result.addAll(elements)\n  return result\n}\n\n/**\n * Returns a list containing all elements
of the original collection and then all elements of the given [elements] collection.\n *^\npublic operator fun <T>
Iterable<T>.plus(elements: Iterable<T>): List<T> {\n  if (this is Collection) return this.plus(elements)\n  val
result = ArrayList<T>()\n  result.addAll(this)\n  result.addAll(elements)\n  return result\n}\n\n/**\n
* Returns a list containing all elements of the original collection and then all elements of the given [elements]
collection.\n *^\npublic operator fun <T> Collection<T>.plus(elements: Iterable<T>): List<T> {\n  if (elements is
Collection) {\n    val result = ArrayList<T>(this.size + elements.size)\n    result.addAll(this)\n
result.addAll(elements)\n    return result\n  } else {\n    val result = ArrayList<T>(this)\n
result.addAll(elements)\n    return result\n  }\n}\n\n/**\n * Returns a list containing all elements of the original
collection and then all elements of the given [elements] sequence.\n *^\npublic operator fun <T>
Iterable<T>.plus(elements: Sequence<T>): List<T> {\n  val result = ArrayList<T>()\n  result.addAll(this)\n
result.addAll(elements)\n  return result\n}\n\n/**\n * Returns a list containing all elements of the original
collection and then all elements of the given [elements] sequence.\n *^\npublic operator
fun <T> Collection<T>.plus(elements: Sequence<T>): List<T> {\n  val result = ArrayList<T>(this.size + 10)\n
result.addAll(this)\n  result.addAll(elements)\n  return result\n}\n\n/**\n * Returns a list containing all elements
of the original collection and then the given [element].\n *^\n@kotlin.internal.InlineOnly\npublic inline fun <T>
Iterable<T>.plusElement(element: T): List<T> {\n  return plus(element)\n}\n\n/**\n * Returns a list containing all
elements of the original collection and then the given [element].\n *^\n@kotlin.internal.InlineOnly\npublic inline fun
<T> Collection<T>.plusElement(element: T): List<T> {\n  return plus(element)\n}\n\n/**\n * Returns a list of
snapshots of the window of the given [size]\n * sliding along this collection with the given [step], where each\n *
snapshot is a list.\n * \n * Several last lists may have fewer elements than the given [size].\n * \n * Both [size] and
[step] must be positive and can be greater than the number of elements
in this collection.\n * @param size the number of elements to take in each window\n * @param step the number of
elements to move the window forward by on an each step, by default 1\n * @param partialWindows controls
whether or not to keep partial windows in the end if any,\n * by default `false` which means partial windows won't
be preserved\n * \n * @sample samples.collections.Sequences.Transformations.takeWindows\n
*^\n@SinceKotlin("1.2")\npublic fun <T> Iterable<T>.windowed(size: Int, step: Int = 1, partialWindows: Boolean
= false): List<List<T>> {\n  checkWindowSizeStep(size, step)\n  if (this is RandomAccess && this is List) {\n
val thisSize = this.size\n    val resultCapacity = thisSize / step + if (thisSize % step == 0) 0 else 1\n    val result
= ArrayList<List<T>>(resultCapacity)\n    var index = 0\n    while (index in 0 until thisSize) {\n    val
windowSize = size.coerceAtMost(thisSize - index)\n        if (windowSize < size && !partialWindows)\n        break\n        result.add(List(windowSize) { this[it + index] })\n        index += step\n    }\n    return result\n
}\n  val result = ArrayList<List<T>>()\n  windowedIterator(iterator(), size, step, partialWindows, reuseBuffer =
false).forEach {\n    result.add(it)\n  }\n  return result\n}\n\n/**\n * Returns a list of results of applying the
given [transform] function to\n * an each list representing a view over the window of the given [size]\n * sliding
along this collection with the given [step].\n * \n * Note that the list passed to the [transform] function is ephemeral
and is valid only inside that function.\n * You should not store it or allow it to escape in some way, unless you made
a snapshot of it.\n * Several last lists may have fewer elements than the given [size].\n * \n * Both [size] and [step]
must be positive and can be greater than the number of elements in this collection.\n * @param size the number of
elements to take in each
window\n * @param step the number of elements to move the window forward by on an each step, by default 1\n *
@param partialWindows controls whether or not to keep partial windows in the end if any,\n * by default `false`
which means partial windows won't be preserved\n * \n * @sample

```

```

samples.collections.Sequences.Transformations.averageWindows\n * \n @SinceKotlin("1.2")\n public fun <T, R>
Iterable<T>.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false, transform: (List<T>) -> R):
List<R> {\n    checkWindowSizeStep(size, step)\n    if (this is RandomAccess && this is List) {\n        val thisSize =
this.size\n        val resultCapacity = thisSize / step + if (thisSize % step == 0) 0 else 1\n        val result =
ArrayList<R>(resultCapacity)\n        val window = MovingSubList(this)\n        var index = 0\n        while (index in 0
until thisSize) {\n            val windowSize = size.coerceAtMost(thisSize - index)\n            if (!partialWindows &&
windowSize < size) break\n
            window.move(index, index + windowSize)\n            result.add(transform(window))\n            index += step\n
        }\n        return result\n    }\n    val result = ArrayList<R>()\n    windowedIterator(iterator(), size, step,
partialWindows, reuseBuffer = true).forEach {\n        result.add(transform(it))\n    }\n    return result\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and the [other] array with the same index.\n * The
returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterable\n * \n public infix fun <T, R> Iterable<T>.zip(other: Array<out
R>): List<Pair<T, R>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values built from
the elements of `this` collection and the [other] array with the same index\n * using the provided [transform]
function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n
* \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n * \n public inline fun <T, R,
V> Iterable<T>.zip(other: Array<out R>, transform: (a: T, b: R) -> V): List<V> {\n    val arraySize = other.size\n
val list = ArrayList<V>(minOf(collectionSizeOrDefault(10), arraySize))\n    var i = 0\n    for (element in this) {\n
if (i >= arraySize) break\n        list.add(transform(element, other[i++]))\n    }\n    return list\n}\n\n/**\n * Returns a
list of pairs built from the elements of `this` collection and [other] collection with the same index.\n * The returned
list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n
* \n public infix fun <T, R> Iterable<T>.zip(other: Iterable<R>): List<Pair<T, R>> {\n    return zip(other) { t1, t2 ->
t1 to t2 }\n}\n\n/**\n * Returns a list of values built from the elements of `this` collection and the [other] collection
with the same index\n * using the provided
[transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n
* \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n * \n public inline fun <T, R, V>
Iterable<T>.zip(other: Iterable<R>, transform: (a: T, b: R) -> V): List<V> {\n    val first = iterator()\n    val second
= other.iterator()\n    val list = ArrayList<V>(minOf(collectionSizeOrDefault(10),
other.collectionSizeOrDefault(10)))\n    while (first.hasNext() && second.hasNext()) {\n
list.add(transform(first.next(), second.next()))\n    }\n    return list\n}\n\n/**\n * Returns a list of pairs of each two
adjacent elements in this collection.\n * \n * The returned list is empty if this collection contains less than two
elements.\n * \n * @sample samples.collections.Collections.Transformations.zipWithNext\n
* \n @SinceKotlin("1.2")\n public fun <T> Iterable<T>.zipWithNext(): List<Pair<T, T>> {\n    return zipWithNext
{ a, b -> a to b }\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to an
each pair of two adjacent elements in this collection.\n * \n * The returned list is empty if this collection contains less than two elements.\n
* \n * @sample samples.collections.Collections.Transformations.zipWithNextToFindDeltas\n
* \n public inline fun <T, R> Iterable<T>.zipWithNext(transform: (a: T, b: T) -> R):
List<R> {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return emptyList()\n    val result =
mutableListOf<R>()\n    var current = iterator.next()\n    while (iterator.hasNext()) {\n        val next =
iterator.next()\n        result.add(transform(current, next))\n        current = next\n    }\n    return result\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if
supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit],
in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults
to "...").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n * \n public fun <T, A :
Appendable> Iterable<T>.joinTo(buffer: A, separator: CharSequence = ", ", prefix: CharSequence = "\", postfix:
CharSequence = "\"", limit: Int = -1, truncated: CharSequence = "...", transform: ((T) -> CharSequence)? = null): A

```

```

{\n  buffer.append(prefix)\n  var count = 0\n  for (element in this) {\n    if (++count > 1)
buffer.append(separator)\n    if (limit < 0 || count <= limit) {\n      buffer.appendElement(element, transform)\n    } else break\n  }\n  if (limit >= 0 && count > limit) buffer.append(truncated)\n  buffer.append(postfix)\n}
return buffer\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given
[prefix] and [postfix] if supplied.\n * \n * If the collection could be
huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be
appended, followed by the [truncated] string (which defaults to "...").\n * \n * @sample
samples.collections.Collections.Transformations.joinToString\n */\npublic fun <T>
Iterable<T>.joinToString(separator: CharSequence = "\", \"", prefix: CharSequence = "\"", postfix: CharSequence =
\"", limit: Int = -1, truncated: CharSequence = "...", transform: ((T) -> CharSequence)? = null): String {\n  return
joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Returns this
collection as an [Iterable].\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.asIterable():
Iterable<T> {\n  return this\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original collection returning
its elements when being iterated.\n * \n * @sample
samples.collections.Sequences.Building.sequenceFromCollection\n */\npublic fun
<T> Iterable<T>.asSequence(): Sequence<T> {\n  return Sequence { this.iterator() }\n}\n\n/**\n * Returns an
average value of elements in the collection.\n */\n@kotlin.jvm.JvmName("averageOfByte")\npublic fun
Iterable<Byte>.average(): Double {\n  var sum: Double = 0.0\n  var count: Int = 0\n  for (element in this) {\n
sum += element\n    checkCountOverflow(++count)\n  }\n  return if (count == 0) Double.NaN else sum /
count\n}\n\n/**\n * Returns an average value of elements in the collection.\n
*/\n@kotlin.jvm.JvmName("averageOfShort")\npublic fun Iterable<Short>.average(): Double {\n  var sum:
Double = 0.0\n  var count: Int = 0\n  for (element in this) {\n    sum += element\n
checkCountOverflow(++count)\n  }\n  return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns
an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName("averageOfInt")\npublic fun
Iterable<Int>.average(): Double {\n  var sum: Double
= 0.0\n  var count: Int = 0\n  for (element in this) {\n    sum += element\n
checkCountOverflow(++count)\n  }\n  return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns
an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName("averageOfLong")\npublic fun
Iterable<Long>.average(): Double {\n  var sum: Double = 0.0\n  var count: Int = 0\n  for (element in this) {\n
sum += element\n    checkCountOverflow(++count)\n  }\n  return if (count == 0) Double.NaN else sum /
count\n}\n\n/**\n * Returns an average value of elements in the collection.\n
*/\n@kotlin.jvm.JvmName("averageOfFloat")\npublic fun Iterable<Float>.average(): Double {\n  var sum:
Double = 0.0\n  var count: Int = 0\n  for (element in this) {\n    sum += element\n
checkCountOverflow(++count)\n  }\n  return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns
an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName("averageOfDouble")\npublic
fun Iterable<Double>.average(): Double {\n  var sum: Double = 0.0\n  var count: Int = 0\n  for (element in this)
{\n    sum += element\n    checkCountOverflow(++count)\n  }\n  return if (count == 0) Double.NaN else sum
/ count\n}\n\n/**\n * Returns the sum of all elements in the collection.\n
*/\n@kotlin.jvm.JvmName("sumOfByte")\npublic fun Iterable<Byte>.sum(): Int {\n  var sum: Int = 0\n  for
(element in this) {\n    sum += element\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all elements in the
collection.\n */\n@kotlin.jvm.JvmName("sumOfShort")\npublic fun Iterable<Short>.sum(): Int {\n  var sum: Int
= 0\n  for (element in this) {\n    sum += element\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all
elements in the collection.\n */\n@kotlin.jvm.JvmName("sumOfInt")\npublic fun Iterable<Int>.sum(): Int {\n  var
sum: Int = 0\n  for (element in this) {\n    sum += element\n
}\n  return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n
*/\n@kotlin.jvm.JvmName("sumOfLong")\npublic fun Iterable<Long>.sum(): Long {\n  var sum: Long = 0L\n
for (element in this) {\n    sum += element\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all elements in
the collection.\n */\n@kotlin.jvm.JvmName("sumOfFloat")\npublic fun Iterable<Float>.sum(): Float {\n  var

```



```

sum: Float = 0.0f\n  for (element in this) {\n    sum += element\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName("sumOfDouble")\npublic fun Iterable<Double>.sum(): Double {\n  var sum: Double = 0.0\n  for (element in this) {\n    sum += element\n  }\n  return sum\n}\n\n"/\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\nimport kotlin.comparisons.naturalOrder\nimport kotlin.random.Random\n\n/**\n * Returns the array if it's not `null`, or an empty array otherwise.\n */\n@sample\nsamples.collections.Arrays.Usage.arrayOrEmpty\n\n/**\n * Returns a *typed* array containing all of the elements of this collection.\n */\n * Allocates an array of runtime type `T` having its size equal to the size of this collection\n * and populates the array with the elements of this collection.\n */\n@sample\nsamples.collections.Collections.Collections.collectionToTypedArray\n\n/**\n * Returns an immutable list containing only the specified object [element].\n */\n\npublic fun <T> listOf(element: T): List<T> =\n  arrayOf(element)\n\n@PublishedApi\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\ninternal actual inline fun <E> buildListInternal(builderAction: MutableList<E>.() -> Unit): List<E> {\n  return\n  ArrayList<E>().apply(builderAction).build()\n}\n\n@PublishedApi\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\ninternal actual inline fun <E> buildListInternal(capacity: Int, builderAction: MutableList<E>.() -> Unit): List<E> {\n  checkBuilderCapacity(capacity)\n  return\n  ArrayList<E>(capacity).apply(builderAction).build()\n}\n\n/**\n * Returns an immutable set containing only the specified object [element].\n */\n\npublic fun <T> setOf(element: T): Set<T> =\n  hashSetOf(element)\n\n@PublishedApi\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\ninternal actual inline fun <E> buildSetInternal(builderAction: MutableSet<E>.() -> Unit): Set<E> {\n  return\n  LinkedHashSet<E>().apply(builderAction).build()\n}\n\n@PublishedApi\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\ninternal actual inline fun <E> buildSetInternal(capacity: Int, builderAction: MutableSet<E>.() -> Unit): Set<E> {\n  return\n  LinkedHashSet<E>(capacity).apply(builderAction).build()\n}\n\n/**\n * Returns an immutable map, mapping only the specified key to the\n * specified value.\n */\n\npublic fun <K, V> mapOf(pair: Pair<K, V>): Map<K, V> =\n  hashMapOf(pair)\n\n@PublishedApi\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\ninternal actual inline fun <K, V> buildMapInternal(builderAction: MutableMap<K, V>.() -> Unit): Map<K, V> {\n  return\n  LinkedHashMap<K, V>().apply(builderAction).build()\n}\n\n@PublishedApi\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\ninternal actual inline fun <K, V> buildMapInternal(capacity: Int, builderAction: MutableMap<K, V>.() -> Unit): Map<K, V> {\n  return\n  LinkedHashMap<K, V>(capacity).apply(builderAction).build()\n}\n\n/**\n * Fills the list with the provided [value].\n */\n
```

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Each element in the list gets replaced with the [value].\n *\n@SinceKotlin("1.2")\npublic actual fun <T>
MutableList<T>.fill(value: T): Unit {\n  for (index in 0..lastIndex) {\n    this[index] = value\n  }\n}\n\n/**\n * Randomly shuffles elements in this list.\n *\n * See:
https://en.wikipedia.org/wiki/Fisher%20%80%93Yates_shuffle#The_modern_algorithm\n
*\n@SinceKotlin("1.2")\npublic actual fun <T> MutableList<T>.shuffle(): Unit = shuffle(Random)\n\n/**\n * Returns a new list with the elements of this list randomly shuffled.\n *\n@SinceKotlin("1.2")\npublic actual fun
<T> Iterable<T>.shuffled(): List<T> = toMutableList().apply { shuffle() }\n\n/**\n * Sorts elements in the list in-
place according to their natural sort order.\n *\n * The sort is _stable_. It means that equal elements preserve their
order relative to each other after sorting.\n *\n * @sample samples.collections.Collections.Sorting.sortMutableList\n
*\n@SinceKotlin("1.2")\npublic actual fun <T : Comparable<T>> MutableList<T>.sort():
Unit {\n  collectionsSort(this, naturalOrder())\n}\n\n/**\n * Sorts elements in the list in-place according to the
order specified with [comparator].\n *\n * The sort is _stable_. It means that equal elements preserve their order
relative to each other after sorting.\n *\n * @sample samples.collections.Collections.Sorting.sortMutableListWith\n
*\n@SinceKotlin("1.2")\npublic actual fun <T> MutableList<T>.sortWith(comparator: Comparator<in T>): Unit {\n
collectionsSort(this, comparator)\n}\n\nprivate fun <T> collectionsSort(list: MutableList<T>, comparator:
Comparator<in T>) {\n  if (list.size <= 1) return\n\n  val array = copyToArray(list)\n  sortArrayWith(array,
comparator)\n\n  for (i in 0 until array.size) {\n    list[i] = array[i]\n  }\n}\n\ninternal actual fun <T>
arrayOfNulls(reference: Array<T>, size: Int): Array<T> {\n  return
arrayOfNulls<Any>(size).unsafeCast<Array<T>>()\n}\n\n@SinceKotlin("1.3")\n@PublishedApi\n@JsName("arrayCopy")\ninternal fun <T> arrayCopy(source:
Array<out T>, destination: Array<in T>, destinationOffset: Int, startIndex: Int, endIndex: Int) {\n
AbstractList.checkRangeIndexes(startIndex, endIndex, source.size)\n  val rangeSize = endIndex - startIndex\n
AbstractList.checkRangeIndexes(destinationOffset, destinationOffset + rangeSize, destination.size)\n\n  if
(js("ArrayBuffer").isView(destination) && js("ArrayBuffer").isView(source)) {\n    val subrange =
source.asDynamic().subarray(startIndex, endIndex)\n    destination.asDynamic().set(subrange,
destinationOffset)\n  } else {\n    if (source !== destination || destinationOffset <= startIndex) {\n      for
(index in 0 until rangeSize) {\n        destination[destinationOffset + index] = source[startIndex + index]\n
      }\n    } else {\n      for (index in rangeSize - 1 downTo 0) {\n        destination[destinationOffset + index] =
source[startIndex + index]\n      }\n    }\n  }\n}\n\n// no singleton
map implementation in js, return map as is\n@Suppress("NOTHING_TO_INLINE")\ninternal actual inline fun
<K, V> Map<K, V>.toSingletonMapOrSelf(): Map<K, V> =
this\n\n@Suppress("NOTHING_TO_INLINE")\ninternal actual inline fun <K, V> Map<out K,
V>.toSingletonMap(): Map<K, V> = this.toMutableMap()\n\n@Suppress("NOTHING_TO_INLINE")\ninternal
actual inline fun <T> Array<out T>.copyToArrayOfAny(isVarargs: Boolean): Array<out Any?> =\n  if
(isVarargs)\n  // no need to copy vararg array in JS\n  this\n  else\n  this.copyOfOf()\n\n@PublishedApi\ninternal actual fun checkIndexOverflow(index: Int): Int {\n  if (index < 0)
{\n    throwIndexOverflow()\n  }\n  return index\n}\n\n@PublishedApi\ninternal actual fun
checkCountOverflow(count: Int): Int {\n  if (count < 0) {\n    throwCountOverflow()\n  }\n  return
count\n}\n\n\n/**\n * JS map and set implementations do not make use of capacities or load factors.\n
*\n@PublishedApi\ninternal actual fun mapCapacity(expectedSize:
Int) = expectedSize\n\n/**\n * Checks a collection builder function capacity argument.\n * In JS no validation is
made in Map/Set constructor yet.\n *\n@SinceKotlin("1.3")\n@PublishedApi\ninternal fun
checkBuilderCapacity(capacity: Int) {\n  require(capacity >= 0) { "capacity must be non-negative."
}\n}\n\ninternal actual fun brittleContainsOptimizationEnabled(): Boolean = false\n\n/**\n * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("CollectionsKt")\n\npackage
kotlin.collections\n\n/**\n * Returns the given iterator itself. This allows to use an instance of iterator in a `for`

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loop.\n * @sample samples.collections.Iterators.iterator\n */\n@kotlin.internal.InlineOnly\npublic inline operator
fun <T> Iterator<T>.iterator(): Iterator<T> =
    this\n\n/**\n * Returns an [Iterator] that wraps each element produced by the original iterator\n * into an
[IndexValue] containing the index of that element and the element itself.\n */\n * @sample
samples.collections.Iterators.withIndexIterator\n */\npublic fun <T> Iterator<T>.withIndex():
Iterator<IndexedValue<T>> = IndexingIterator(this)\n\n/**\n * Performs the given [operation] on each element of
this [Iterator].\n */\n * @sample samples.collections.Iterators.forEachIterator\n */\npublic inline fun <T>
Iterator<T>.forEach(operation: (T) -> Unit): Unit {\n    for (element in this) operation(element)\n}\n\n/**\n *
Iterator transforming original `iterator` into iterator of [IndexedValue], counting index from zero.\n */\n\ninternal class
IndexingIterator<out T>(private val iterator: Iterator<T>) : Iterator<IndexedValue<T>> {\n    private var index =
0\n    final override fun hasNext(): Boolean = iterator.hasNext()\n    final override fun next(): IndexedValue<T> =
IndexedValue(checkIndexOverflow(index++),
    iterator.next())\n}\n\n", /*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("ComparisonsKt")\n\npackage
kotlin.comparisons\n\n/\n\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\nimport kotlin.random.*\n\n/**\n * Returns the
greater of two values.\n */\n * If values are equal, returns the first one.\n */\n\n@SinceKotlin("1.1")\npublic expect
fun <T : Comparable<T>> maxOf(a: T, b: T): T\n\n/**\n * Returns the greater of two values.\n
*/\n\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Byte, b: Byte):
Byte\n\n/**\n * Returns the greater of two values.\n */\n\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic
expect inline fun maxOf(a: Short, b: Short): Short\n\n/**\n * Returns the greater of two values.\n
*/\n\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Int, b: Int): Int\n\n
* Returns the greater of two values.\n */\n\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline
fun maxOf(a: Long, b: Long): Long\n\n/**\n * Returns the greater of two values.\n */\n * If either value is `NaN`,
returns `NaN`.\n */\n\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Float,
b: Float): Float\n\n/**\n * Returns the greater of two values.\n */\n * If either value is `NaN`, returns `NaN`.\n
*/\n\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Double, b: Double):
Double\n\n/**\n * Returns the greater of three values.\n */\n * If there are multiple equal maximal values, returns the
first of them.\n */\n\n@SinceKotlin("1.1")\npublic expect fun <T : Comparable<T>> maxOf(a: T,
b: T, c: T): T\n\n/**\n * Returns the greater of three values.\n
*/\n\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Byte, b: Byte, c: Byte):
Byte\n\n/**\n * Returns the greater of three values.\n
*/\n\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Short, b: Short, c:
Short): Short\n\n/**\n * Returns the greater of three values.\n
*/\n\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Int, b: Int, c: Int):
Int\n\n/**\n * Returns the greater of three values.\n */\n\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic
expect inline fun maxOf(a: Long, b: Long, c: Long): Long\n\n/**\n * Returns the greater of three values.\n */\n * If
any value is `NaN`, returns `NaN`.\n */\n\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline
fun maxOf(a: Float, b: Float, c: Float): Float\n\n/**\n * Returns the greater of three values.\n */\n * If any value is
`NaN`, returns
`NaN`.\n */\n\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Double, b:
Double, c: Double): Double\n\n/**\n * Returns the greater of three values according to the order specified by the
given [comparator].\n */\n * If there are multiple equal maximal values, returns the first of them.\n
*/\n\n@SinceKotlin("1.1")\npublic fun <T> maxOf(a: T, b: T, c: T, comparator: Comparator<in T>): T {\n    return
maxOf(a, maxOf(b, c, comparator), comparator)\n}\n\n/**\n * Returns the greater of two values according to the
order specified by the given [comparator].\n */\n * If values are equal, returns the first one.\n

```

```

*^@SinceKotlin("1.1")\npublic fun <T> maxOf(a: T, b: T, comparator: Comparator<in T>): T {\n    return if
(comparator.compare(a, b) >= 0) a else b\n}\n\n/**\n * Returns the greater of the given values.\n * \n * If there are
multiple equal maximal values, returns the first of them.\n */^@SinceKotlin("1.4")\npublic expect fun <T :
Comparable<T>>
    maxOf(a: T, vararg other: T): T\n\n/**\n * Returns the greater of the given values.\n
*^@SinceKotlin("1.4")\npublic expect fun maxOf(a: Byte, vararg other: Byte): Byte\n\n/**\n * Returns the
greater of the given values.\n */^@SinceKotlin("1.4")\npublic expect fun maxOf(a: Short, vararg other: Short):
Short\n\n/**\n * Returns the greater of the given values.\n */^@SinceKotlin("1.4")\npublic expect fun maxOf(a:
Int, vararg other: Int): Int\n\n/**\n * Returns the greater of the given values.\n */^@SinceKotlin("1.4")\npublic
expect fun maxOf(a: Long, vararg other: Long): Long\n\n/**\n * Returns the greater of the given values.\n * \n *
If any value is `NaN`, returns `NaN`.\n */^@SinceKotlin("1.4")\npublic expect fun maxOf(a: Float, vararg other:
Float): Float\n\n/**\n * Returns the greater of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n
*/^@SinceKotlin("1.4")\npublic expect fun maxOf(a: Double, vararg other: Double): Double\n\n/**\n * Returns
the
greater of the given values according to the order specified by the given [comparator].\n * \n * If there are multiple
equal maximal values, returns the first of them.\n */^@SinceKotlin("1.4")\npublic fun <T> maxOf(a: T, vararg
other: T, comparator: Comparator<in T>): T {\n    var max = a\n    for (e in other) if (comparator.compare(max, e) <
0) max = e\n    return max\n}\n\n/**\n * Returns the smaller of two values.\n * \n * If values are equal, returns the
first one.\n */^@SinceKotlin("1.1")\npublic expect fun <T : Comparable<T>> minOf(a: T, b: T): T\n\n/**\n *
Returns the smaller of two values.\n */^@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline
fun minOf(a: Byte, b: Byte): Byte\n\n/**\n * Returns the smaller of two values.\n
*^@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Short, b: Short):
Short\n\n/**\n * Returns the smaller of two values.\n
*^@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic
expect inline fun minOf(a: Int, b: Int): Int\n\n/**\n * Returns the smaller of two values.\n
*^@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Long, b: Long):
Long\n\n/**\n * Returns the smaller of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n
*/^@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Float, b: Float):
Float\n\n/**\n * Returns the smaller of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n
*/^@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Double, b: Double):
Double\n\n/**\n * Returns the smaller of three values.\n * \n * If there are multiple equal minimal values, returns the
first of them.\n */^@SinceKotlin("1.1")\npublic expect fun <T : Comparable<T>> minOf(a: T, b: T, c: T):
T\n\n/**\n * Returns the smaller of three values.\n */^@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic
expect inline fun minOf(a: Byte, b:
Byte, c: Byte): Byte\n\n/**\n * Returns the smaller of three values.\n
*^@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Short, b: Short, c:
Short): Short\n\n/**\n * Returns the smaller of three values.\n
*^@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Int, b: Int, c: Int):
Int\n\n/**\n * Returns the smaller of three values.\n */^@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic
expect inline fun minOf(a: Long, b: Long, c: Long): Long\n\n/**\n * Returns the smaller of three values.\n * \n *
If any value is `NaN`, returns `NaN`.\n */^@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline
fun minOf(a: Float, b: Float, c: Float): Float\n\n/**\n * Returns the smaller of three values.\n * \n * If any value is
`NaN`, returns `NaN`.\n */^@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a:
Double, b: Double, c: Double): Double\n\n/**\n * Returns the
smaller of three values according to the order specified by the given [comparator].\n * \n * If there are multiple
equal minimal values, returns the first of them.\n */^@SinceKotlin("1.1")\npublic fun <T> minOf(a: T, b: T, c: T,
comparator: Comparator<in T>): T {\n    return minOf(a, minOf(b, c, comparator), comparator)\n}\n\n/**\n *
Returns the smaller of two values according to the order specified by the given [comparator].\n * \n * If values are

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equal, returns the first one.\n *^@SinceKotlin("1.1")\npublic fun <T> minOf(a: T, b: T, comparator:
Comparator<in T>): T {\n    return if (comparator.compare(a, b) <= 0) a else b}\n\n/**\n * Returns the smaller of
the given values.\n * \n * If there are multiple equal minimal values, returns the first of them.\n
*^@SinceKotlin("1.4")\npublic expect fun <T : Comparable<T>> minOf(a: T, vararg other: T): T\n\n/**\n *
Returns the smaller of the given values.\n *^@SinceKotlin("1.4")\npublic expect fun minOf(a: Byte, vararg
other:
Byte): Byte\n\n/**\n * Returns the smaller of the given values.\n *^@SinceKotlin("1.4")\npublic expect fun
minOf(a: Short, vararg other: Short): Short\n\n/**\n * Returns the smaller of the given values.\n
*^@SinceKotlin("1.4")\npublic expect fun minOf(a: Int, vararg other: Int): Int\n\n/**\n * Returns the smaller of
the given values.\n *^@SinceKotlin("1.4")\npublic expect fun minOf(a: Long, vararg other: Long):
Long\n\n/**\n * Returns the smaller of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n
*^@SinceKotlin("1.4")\npublic expect fun minOf(a: Float, vararg other: Float): Float\n\n/**\n * Returns the
smaller of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n *^@SinceKotlin("1.4")\npublic
expect fun minOf(a: Double, vararg other: Double): Double\n\n/**\n * Returns the smaller of the given values
according to the order specified by the given [comparator].\n * \n * If there are multiple equal minimal values,
returns the first
of them.\n *^@SinceKotlin("1.4")\npublic fun <T> minOf(a: T, vararg other: T, comparator: Comparator<in
T>): T {\n    var min = a\n    for (e in other) if (comparator.compare(min, e) > 0) min = e\n    return
min}\n\n"/**\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use
of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*^@n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("MapsKt")\n\npackage
kotlin.collections\n\n/\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\nimport kotlin.random.*\nimport
kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns the first non-null value produced by
[transform] function being applied to entries of this map in iteration order,\n * or throws
[NoSuchElementException] if no non-null value was produced.\n * \n *
@sample samples.collections.Collections.Transformations.firstNotNullOf\n
*^@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Any> Map<out K,
V>.firstNotNullOf(transform: (Map.Entry<K, V>) -> R?): R {\n    return firstNotNullOfOrNull(transform) ?: throw
NoSuchElementException("No element of the map was transformed to a non-null value.")}\n\n/**\n * Returns
the first non-null value produced by [transform] function being applied to entries of this map in iteration order,\n
* or `null` if no non-null value was produced.\n * \n *
@sample
samples.collections.Collections.Transformations.firstNotNullOf\n
*^@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Any> Map<out K,
V>.firstNotNullOfOrNull(transform: (Map.Entry<K, V>) -> R?): R? {\n    for (element in this) {\n        val result =
transform(element)\n        if (result != null) {\n            return result\n        }\n    }\n    return null}\n\n/**\n *
Returns a [List]
containing all key-value pairs.\n *^@npublic fun <K, V> Map<out K, V>.toList(): List<Pair<K, V>> {\n    if (size
== 0)\n        return emptyList()\n    val iterator = entries.iterator()\n    if (!iterator.hasNext())\n        return
emptyList()\n    val first = iterator.next()\n    if (!iterator.hasNext())\n        return listOf(first.toPair())\n    val result =
ArrayList<Pair<K, V>>(size)\n    result.add(first.toPair())\n    do {\n        result.add(iterator.next().toPair())\n    }
while (iterator.hasNext())\n    return result}\n\n/**\n * Returns a single list of all elements yielded from results of
[transform] function being invoked on each entry of original map.\n * \n *
@sample
samples.collections.Collections.Transformations.flatMap\n *^@npublic inline fun <K, V, R> Map<out K,
V>.flatMap(transform: (Map.Entry<K, V>) -> Iterable<R>): List<R> {\n    return flatMapTo(ArrayList<R>(),
transform)}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function
being invoked on each entry of original map.\n * \n *
@sample
samples.collections.Collections.Transformations.flatMap\n

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*^@SinceKotlin("1.4")^@OptIn(kotlin.experimental.ExperimentalTypeInference::class)^@OverloadResolution
ByLambdaReturnType^@kotlin.jvm.JvmName("flatMapSequence")^public inline fun <K, V, R> Map<out K,
V>.flatMap(transform: (Map.Entry<K, V>) -> Sequence<R>): List<R> {^n   return flatMapTo(ArrayList<R>(),
transform)^n}^n/^n * Appends all elements yielded from results of [transform] function being invoked on each
entry of original map, to the given [destination].^n *^n^public inline fun <K, V, R, C : MutableCollection<in R>>
Map<out K, V>.flatMapTo(destination: C, transform: (Map.Entry<K, V>) -> Iterable<R>): C {^n   for (element in
this) {^n       val list = transform(element)^n       destination.addAll(list)^n   }^n   return destination^n}^n/^n *
Appends all elements yielded from results of [transform] function being invoked on each entry of original
map, to the given [destination].^n
*^@SinceKotlin("1.4")^@OptIn(kotlin.experimental.ExperimentalTypeInference::class)^@OverloadResolution
ByLambdaReturnType^@kotlin.jvm.JvmName("flatMapSequenceTo")^public inline fun <K, V, R, C :
MutableCollection<in R>> Map<out K, V>.flatMapTo(destination: C, transform: (Map.Entry<K, V>) ->
Sequence<R>): C {^n   for (element in this) {^n       val list = transform(element)^n       destination.addAll(list)^n
   }^n   return destination^n}^n/^n * Returns a list containing the results of applying the given [transform]
function^n * to each entry in the original map.^n * ^n * @sample
samples.collections.Maps.Transformations.mapToList^n *^n^public inline fun <K, V, R> Map<out K,
V>.map(transform: (Map.Entry<K, V>) -> R): List<R> {^n   return mapTo(ArrayList<R>(size),
transform)^n}^n/^n * Returns a list containing only the non-null results of applying the given [transform]
function^n * to each entry in the original map.^n * ^n * @sample
samples.collections.Maps.Transformations.mapNotNull^n *^n^public inline fun <K, V, R : Any> Map<out K,
V>.mapNotNull(transform: (Map.Entry<K, V>) -> R?): List<R> {^n   return mapNotNullTo(ArrayList<R>(),
transform)^n}^n/^n * Applies the given [transform] function to each entry in the original map^n * and appends
only the non-null results to the given [destination].^n *^n^public inline fun <K, V, R : Any, C : MutableCollection<in
R>> Map<out K, V>.mapNotNullTo(destination: C, transform: (Map.Entry<K, V>) -> R?): C {^n   forEach {
element -> transform(element)?.let { destination.add(it) } }^n   return destination^n}^n/^n * Applies the given
[transform] function to each entry of the original map^n * and appends the results to the given [destination].^n
*^n^public inline fun <K, V, R, C : MutableCollection<in R>> Map<out K, V>.mapTo(destination: C, transform:
(Map.Entry<K, V>) -> R): C {^n   for (item in this)^n       destination.add(transform(item))^n   return
destination^n}^n/^n *
* Returns `true` if all entries match the given [predicate].^n * ^n * @sample
samples.collections.Collections.Aggregates.all^n *^n^public inline fun <K, V> Map<out K, V>.all(predicate:
(Map.Entry<K, V>) -> Boolean): Boolean {^n   if (isEmpty()) return true^n   for (element in this) if
(!predicate(element)) return false^n   return true^n}^n/^n * Returns `true` if map has at least one entry.^n * ^n *
@sample samples.collections.Collections.Aggregates.any^n *^n^public fun <K, V> Map<out K, V>.any(): Boolean
{^n   return !isEmpty()^n}^n/^n * Returns `true` if at least one entry matches the given [predicate].^n * ^n *
@sample samples.collections.Collections.Aggregates.anyWithPredicate^n *^n^public inline fun <K, V> Map<out K,
V>.any(predicate: (Map.Entry<K, V>) -> Boolean): Boolean {^n   if (isEmpty()) return false^n   for (element in
this) if (predicate(element)) return true^n   return false^n}^n/^n * Returns the number of entries in this map.^n
*^n^@kotlin.internal.InlineOnly^n^public
inline fun <K, V> Map<out K, V>.count(): Int {^n   return size^n}^n/^n * Returns the number of entries
matching the given [predicate].^n *^n^public inline fun <K, V> Map<out K, V>.count(predicate: (Map.Entry<K, V>)
-> Boolean): Int {^n   if (isEmpty()) return 0^n   var count = 0^n   for (element in this) if (predicate(element))
++count^n   return count^n}^n/^n * Performs the given [action] on each entry.^n
*^n^@kotlin.internal.HidesMembers^n^public inline fun <K, V> Map<out K, V>.forEach(action: (Map.Entry<K, V>)
-> Unit): Unit {^n   for (element in this) action(element)^n}^n^@Deprecated("Use maxByOrNull instead.",
ReplaceWith("this.maxByOrNull(selector)"))^n^@DeprecatedSinceKotlin(warningSince = "1.4", errorSince =
"1.5", hiddenSince = "1.6")^n^@kotlin.internal.InlineOnly^n^public inline fun <K, V, R : Comparable<R>>
Map<out K, V>.maxBy(selector: (Map.Entry<K, V>) -> R): Map.Entry<K, V>? {^n   return

```

```

maxByOrNull(selector)\n}\n\n/**\n
 * Returns the first entry yielding the largest value of the given function or `null` if there are no entries.\n * \n *
 @sample samples.collections.Collections.Aggregates.maxByOrNull\n
*/\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out
K, V>.maxByOrNull(selector: (Map.Entry<K, V>) -> R): Map.Entry<K, V>? {\n    return
entries.maxByOrNull(selector)\n}\n\n/**\n * Returns the largest value among all values produced by [selector]
function\n * applied to each entry in the map.\n * \n * If any of values produced by [selector] function is `NaN`, the
returned result is `NaN`.\n * \n * @throws NoSuchElementException if the map is empty.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.maxOf(selector:
(Map.Entry<K, V>) -> Double): Double {\n    return entries.maxOf(selector)\n}\n\n/**\n * Returns
the largest value among all values produced by [selector] function\n * applied to each entry in the map.\n * \n * If
any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws
NoSuchElementException if the map is empty.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.maxOf(selector:
(Map.Entry<K, V>) -> Float): Float {\n    return entries.maxOf(selector)\n}\n\n/**\n * Returns the largest value
among all values produced by [selector] function\n * applied to each entry in the map.\n * \n * @throws
NoSuchElementException if the map is empty.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out K,
V>.maxOf(selector: (Map.Entry<K, V>) -> R):
R {\n    return entries.maxOf(selector)\n}\n\n/**\n * Returns the largest value among all values produced by
[selector] function\n * applied to each entry in the map or `null` if there are no entries.\n * \n * If any of values
produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K,
V>.maxOfOrNull(selector: (Map.Entry<K, V>) -> Double): Double? {\n    return
entries.maxOfOrNull(selector)\n}\n\n/**\n * Returns the largest value among all values produced by [selector]
function\n * applied to each entry in the map or `null` if there are no entries.\n * \n * If any of values produced by
[selector] function is `NaN`, the returned result is `NaN`.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <K, V> Map<out K, V>.maxOfOrNull(selector: (Map.Entry<K, V>) -> Float): Float? {\n    return
entries.maxOfOrNull(selector)\n}\n\n/**\n * Returns the largest value among all values produced by [selector]
function\n * applied to each entry in the map or `null` if there are no entries.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out K,
V>.maxOfOrNull(selector: (Map.Entry<K, V>) -> R): R? {\n    return entries.maxOfOrNull(selector)\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each entry in the map.\n * \n * @throws NoSuchElementException if the map is empty.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <K, V, R> Map<out K, V>.maxOfWith(comparator: Comparator<in R>, selector: (Map.Entry<K, V>) ->
R): R {\n    return entries.maxOfWith(comparator, selector)\n}\n\n/**\n * Returns the largest value according to the
provided [comparator]\n * among all values produced by [selector] function applied to each entry in the map or
`null` if there are no entries.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

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ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R> Map<out K,
V>.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Map.Entry<K, V>) -> R): R? {\n  return
entries.maxOfWithOrNull(comparator, selector)\n}\n\n@Deprecated(\n"Use maxWithOrNull instead.\n",
ReplaceWith(\n"this.maxWithOrNull(comparator)\n"))\n@DeprecatedSinceKotlin(warningSince = \n"1.4\n", errorSince
= \n"1.5\n", hiddenSince = \n"1.6\n")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K,
V>.maxWith(comparator:
Comparator<in Map.Entry<K, V>>): Map.Entry<K, V>? {\n  return maxWithOrNull(comparator)\n}\n\n**\n *
Returns the first entry having the largest value according to the provided [comparator] or `null` if there are no
entries.\n * \n\n@SinceKotlin(\n"1.4\n")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K,
V>.maxWithOrNull(comparator: Comparator<in Map.Entry<K, V>>): Map.Entry<K, V>? {\n  return
entries.maxWithOrNull(comparator)\n}\n\n@Deprecated(\n"Use minByOrNull instead.\n",
ReplaceWith(\n"this.minByOrNull(selector)\n"))\n@DeprecatedSinceKotlin(warningSince = \n"1.4\n", errorSince =
\n"1.5\n", hiddenSince = \n"1.6\n")\npublic inline fun <K, V, R : Comparable<R>> Map<out K, V>.minBy(selector:
(Map.Entry<K, V>) -> R): Map.Entry<K, V>? {\n  return minByOrNull(selector)\n}\n\n**\n * Returns the first
entry yielding the smallest value of the given function or `null` if there are no entries.\n * \n * @sample
samples.collections.Collections.Aggregates.minByOrNull\n
*\n\n@SinceKotlin(\n"1.4\n")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out
K, V>.minByOrNull(selector: (Map.Entry<K, V>) -> R): Map.Entry<K, V>? {\n  return
entries.minByOrNull(selector)\n}\n\n**\n * Returns the smallest value among all values produced by [selector]
function\n * applied to each entry in the map.\n * \n * If any of values produced by [selector] function is `NaN`, the
returned result is `NaN`.\n * \n * @throws NoSuchElementException if the map is empty.\n
*\n\n@SinceKotlin(\n"1.4\n")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.minOf(selector:
(Map.Entry<K, V>) -> Double): Double {\n  return entries.minOf(selector)\n}\n\n**\n * Returns the smallest
value among all values produced by [selector] function\n * applied to each entry in the map.\n * \n * If any of values
produced by [selector] function is `NaN`, the
returned result is `NaN`.\n * \n * @throws NoSuchElementException if the map is empty.\n
*\n\n@SinceKotlin(\n"1.4\n")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.minOf(selector:
(Map.Entry<K, V>) -> Float): Float {\n  return entries.minOf(selector)\n}\n\n**\n * Returns the smallest
value among all values produced by [selector] function\n * applied to each entry in the map.\n * \n * @throws
NoSuchElementException if the map is empty.\n
*\n\n@SinceKotlin(\n"1.4\n")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out K,
V>.minOf(selector: (Map.Entry<K, V>) -> R): R {\n  return entries.minOf(selector)\n}\n\n**\n * Returns the
smallest value among all values produced by [selector] function\n * applied to each entry in the map or `null` if
there are no entries.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.\n
*\n\n@SinceKotlin(\n"1.4\n")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K,
V>.minOfOrNull(selector: (Map.Entry<K, V>) -> Double): Double? {\n  return
entries.minOfOrNull(selector)\n}\n\n**\n * Returns the smallest value among all values produced by [selector]
function\n * applied to each entry in the map or `null` if there are no entries.\n * \n * If any of values produced by
[selector] function is `NaN`, the returned result is `NaN`.\n
*\n\n@SinceKotlin(\n"1.4\n")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K,
V>.minOfOrNull(selector: (Map.Entry<K, V>) -> Float): Float? {\n  return
entries.minOfOrNull(selector)\n}\n\n**\n * Returns

```



the smallest value among all values produced by [selector] function\n \* applied to each entry in the map or `null` if there are no entries.\n

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out K, V>.minOfOrNull(selector: (Map.Entry<K, V>) -> R): R? {\n    return entries.minOfOrNull(selector)\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector]\n * function applied to each entry in the map.\n * \n * @throws NoSuchElementException if the map is empty.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R> Map<out K, V>.minOfWith(comparator: Comparator<in R>, selector: (Map.Entry<K, V>) -> R): R {\n    return entries.minOfWith(comparator, selector)\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector]\n * function applied to each entry in the map or `null` if there are no entries.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R> Map<out K, V>.minOfWithOrNull(comparator: Comparator<in R>, selector: (Map.Entry<K, V>) -> R): R? {\n    return entries.minOfWithOrNull(comparator, selector)\n}\n\n@Deprecated("Use minWithOrNull instead.", ReplaceWith("this.minWithOrNull(comparator)"))\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5", hiddenSince = "1.6")\npublic fun <K, V> Map<out K, V>.minWith(comparator: Comparator<in Map.Entry<K, V>>): Map.Entry<K, V>? {\n    return minWithOrNull(comparator)\n}\n\n/**\n * Returns the first entry having the smallest value according to the provided [comparator]\n
```

```
or `null` if there are no entries.\n *\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.minWithOrNull(comparator: Comparator<in Map.Entry<K, V>>): Map.Entry<K, V>? {\n    return entries.minWithOrNull(comparator)\n}\n\n/**\n * Returns `true` if the map has no entries.\n * \n * @sample samples.collections.Collections.Aggregates.none\n *\npublic fun <K, V> Map<out K, V>.none(): Boolean {\n    return isEmpty()\n}\n\n/**\n * Returns `true` if no entries match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n *\npublic inline fun <K, V> Map<out K, V>.none(predicate: (Map.Entry<K, V>) -> Boolean): Boolean {\n    if (isEmpty()) return true\n    for (element in this) if (predicate(element)) return false\n    return true\n}\n\n/**\n * Performs the given [action] on each entry and returns the map itself afterwards.\n *\n@SinceKotlin("1.1")\npublic inline fun <K, V, M : Map<out K, V>> M.onEach(action:\n
```

```
(Map.Entry<K, V>) -> Unit): M {\n    return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each entry, providing sequential index with the entry,\n * and returns the map itself afterwards.\n * \n * @param [action] function that takes the index of an entry and the entry itself\n * and performs the action on the entry.\n *\n@SinceKotlin("1.4")\npublic inline fun <K, V, M : Map<out K, V>> M.onEachIndexed(action: (index: Int, Map.Entry<K, V>) -> Unit): M {\n    return apply {\n
```

```
entries.forEachIndexed(action) }\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original map returning its entries when being iterated.\n *\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.asIterable(): Iterable<Map.Entry<K, V>> {\n    return entries\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original map returning its entries when being iterated.\n *\npublic fun <K, V> Map<out K, V>.asSequence(): Sequence<Map.Entry<K, V>> {\n    return entries.asSequence()\n}\n\n"/\n\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n *\n\npackage kotlin.text\n\n/\n\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n// See:\n
```

```
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\n/\n\n// 10 mappings totally\n\ninternal fun Char.titlecaseImpl(): String {\n    val uppercase = uppercase()\n    if (uppercase.length > 1) {\n        return if (this == '\u0149') uppercase else uppercase[0] + uppercase.substring(1).lowercase()\n    }\n    return\n
```

```
uppercase else uppercase[0] + uppercase.substring(1).lowercase()\n}\n    return\n
```

```

titlecaseChar().toString()\n\n", /*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/**\n * Converts this character
to lower case using Unicode mapping rules of the invariant locale.\n */\n@Deprecated("Use lowercaseChar()
instead.", ReplaceWith("lowercaseChar()"))\n@DeprecatedSinceKotlin(warningSince =
"1.5")\n@kotlin.internal.InlineOnly\npublic actual inline fun Char.toLowerCase(): Char =
lowercaseChar()\n\n/**\n * Converts this character to lower case using Unicode mapping rules of the invariant
locale.\n */\n * This function performs one-to-one character mapping.\n * To support one-to-many character
mapping use the [lowercase] function.\n * If this character has no mapping equivalent, the character itself is
returned.\n */\n * @sample samples.text.Chars.lowercase\n
*/\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c actual inline fun Char.lowercaseChar(): Char = lowercase()[0]\n\n/**\n * Converts this character to lower case
using Unicode mapping rules of the invariant locale.\n */\n * This function supports one-to-many character mapping,
thus the length of the returned string can be greater than one.\n * For example, ``\u0130.lowercase()`` returns
``\u0069\u0307``,\n * where ``\u0130`` is the LATIN CAPITAL LETTER I WITH DOT ABOVE character
(`\u0130`).\n * If this character has no lower case mapping, the result of `toString()` of this char is returned.\n */\n *
@sample samples.text.Chars.lowercase\n
*/\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c actual inline fun Char.lowercase(): String = toString().asDynamic().toLowerCase().unsafeCast<String>()\n\n/**\n
 * Converts this character to upper case using Unicode mapping rules of the invariant locale.\n
*/\n@Deprecated("Use uppercaseChar() instead.",
ReplaceWith("uppercaseChar()"))\n@DeprecatedSinceKotlin(warningSince =
"1.5")\n@kotlin.internal.InlineOnly\npublic actual inline fun Char.toUpperCase(): Char =
uppercaseChar()\n\n/**\n * Converts this character to upper case using Unicode mapping rules
of the invariant locale.\n */\n * This function performs one-to-one character mapping.\n * To support one-to-many
character mapping use the [uppercase] function.\n * If this character has no mapping equivalent, the character itself
is returned.\n */\n * @sample samples.text.Chars.uppercase\n
*/\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun
Char.uppercaseChar(): Char {\n    val uppercase = uppercase()\n    return if (uppercase.length > 1) this else
uppercase[0]\n}\n\n/**\n * Converts this character to upper case using Unicode mapping rules of the invariant
locale.\n */\n * This function supports one-to-many character mapping, thus the length of the returned string can be
greater than one.\n * For example, ``\uFB00.uppercase()`` returns ``\u0046\u0046``,\n * where ``\uFB00`` is the
LATIN SMALL LIGATURE FF character (`\ufb00`).\n * If this character has no upper case mapping, the result of
`toString()` of this char is returned.\n */\n * @sample
samples.text.Chars.uppercase\n
*/\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c actual inline fun Char.uppercase(): String = toString().asDynamic().toUpperCase().unsafeCast<String>()\n\n/**\n
 * Converts this character to title case using Unicode mapping rules of the invariant locale.\n */\n * This function
performs one-to-one character mapping.\n * To support one-to-many character mapping use the [titlecase]
function.\n * If this character has no mapping equivalent, the result of calling [uppercaseChar] is returned.\n */\n *
@sample samples.text.Chars.titlecase\n
*/\n@SinceKotlin("1.5")\npublic actual fun Char.titlecaseChar(): Char =
titlecaseCharImpl()\n\n/**\n * Returns `true` if this character is a Unicode high-surrogate code unit (also known as
leading-surrogate code unit).\n */\n@public actual fun Char.isHighSurrogate(): Boolean = this in
Char.MIN_HIGH_SURROGATE..Char.MAX_HIGH_SURROGATE\n\n/**\n * Returns `true` if this
character is a Unicode low-surrogate code unit (also known as trailing-surrogate code unit).\n */\n@public actual fun
Char.isLowSurrogate(): Boolean = this in
Char.MIN_LOW_SURROGATE..Char.MAX_LOW_SURROGATE\n\n/**\n * Returns the Unicode general
category of this character.\n */\n@SinceKotlin("1.5")\npublic actual val Char.category: CharCategory\n    get() =

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CharCategory.valueOf(getCategoryValue())\n\n**\n * Returns `true` if this character (Unicode code point) is
defined in Unicode.\n\n * A character is considered to be defined in Unicode if its [category] is not
[CharCategory.UNASSIGNED].\n\n * \n@SinceKotlin("1.5")\npublic actual fun Char.isDefined(): Boolean {\n    if
(this < "\u0080") {\n        return true\n    }\n    return getCategoryValue() !=
CharCategory.UNASSIGNED.value\n}\n\n**\n * Returns `true` if this character is a letter.\n\n * A character is
considered to be a letter if its [category] is [CharCategory.UPPERCASE_LETTER],\n\n *
[CharCategory.LOWERCASE_LETTER],
[CharCategory.TITLECASE_LETTER], [CharCategory.MODIFIER_LETTER], or
[CharCategory.OTHER_LETTER].\n\n * \n * @sample samples.text.Chars.isLetter\n
*\n@SinceKotlin("1.5")\npublic actual fun Char.isLetter(): Boolean {\n    if (this in 'a..'z' || this in 'A..'Z') {\n
return true\n    }\n    if (this < "\u0080") {\n        return false\n    }\n    return isLetterImpl()\n}\n\n**\n * Returns
`true` if this character is a letter or digit.\n\n * \n * @see isLetter\n\n * @see isDigit\n\n * \n * @sample
samples.text.Chars.isLetterOrDigit\n\n * \n@SinceKotlin("1.5")\npublic actual fun Char.isLetterOrDigit(): Boolean
{\n    if (this in 'a..'z' || this in 'A..'Z' || this in '0..'9') {\n        return true\n    }\n    if (this < "\u0080") {\n
return
false\n    }\n\n    return isDigitImpl() || isLetterImpl()\n}\n\n**\n * Returns `true` if this character is a digit.\n\n *
A character is considered to be a digit if its [category] is [CharCategory.DECIMAL_DIGIT_NUMBER].\n\n *
\n * @sample samples.text.Chars.isDigit\n
*\n@SinceKotlin("1.5")\npublic actual fun Char.isDigit(): Boolean {\n    if (this in '0..'9') {\n        return true\n
}\n    if (this < "\u0080") {\n        return false\n    }\n    return isDigitImpl()\n}\n\n**\n * Returns `true` if this
character is upper case.\n\n * A character is considered to be an upper case character if its [category] is
[CharCategory.UPPERCASE_LETTER],\n\n * or it has contributory property `Other_Uppercase` as defined by the
Unicode Standard.\n\n * \n * @sample samples.text.Chars.isUpperCase\n\n * \n@SinceKotlin("1.5")\npublic actual fun
Char.isUpperCase(): Boolean {\n    if (this in 'A..'Z') {\n        return true\n    }\n    if (this < "\u0080") {\n
return
false\n    }\n    return isUpperCaseImpl()\n}\n\n**\n * Returns `true` if this character is lower case.\n\n * A
character is considered to be a lower case character if its [category] is [CharCategory.LOWERCASE_LETTER],\n\n *
or it has contributory property `Other_Lowercase`
as defined by the Unicode Standard.\n\n * \n * @sample samples.text.Chars.isLowerCase\n
*\n@SinceKotlin("1.5")\npublic actual fun Char.isLowerCase(): Boolean {\n    if (this in 'a..'z') {\n        return
true\n    }\n    if (this < "\u0080") {\n        return false\n    }\n    return isLowerCaseImpl()\n}\n\n**\n * Returns
`true` if this character is a title case letter.\n\n * A character is considered to be a title case letter if its [category] is
[CharCategory.TITLECASE_LETTER].\n\n * \n * @sample samples.text.Chars.isTitleCase\n
*\n@SinceKotlin("1.5")\npublic actual fun Char.isTitleCase(): Boolean {\n    if (this < "\u0080") {\n        return
false\n    }\n    return getCategoryValue() == CharCategory.TITLECASE_LETTER.value\n}\n\n**\n * Returns
`true` if this character is an ISO control character.\n\n * A character is considered to be an ISO control character if
its [category] is [CharCategory.CONTROL],\n\n * meaning the Char is in the range `"\u0000..\u001F"`
or in the range `"\u007F..\u009F".\n\n * \n * @sample samples.text.Chars.isISOControl\n
*\n@SinceKotlin("1.5")\npublic actual fun Char.isISOControl(): Boolean {\n    return this <= "\u001F" || this in
"\u007F..\u009F"\n}\n\n**\n * Determines whether a character is whitespace according to the Unicode standard.\n\n *
Returns `true` if the character is whitespace.\n\n * \n * @sample samples.text.Chars.isWhitespace\n\n * \n@SinceKotlin("1.5")\npublic actual
fun Char.isWhitespace(): Boolean = isWhitespaceImpl(), /*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n\n * \n@package kotlin.text\n\n * \nimport kotlin.js.RegExp\n\n * \n * Converts
the characters in the specified array to a string.\n\n * \n@SinceKotlin("1.2")\n@Deprecated("Use
CharArray.concatToString() instead",
ReplaceWith("chars.concatToString()"))\n@DeprecatedSinceKotlin(warningSince = "1.4",
errorSince = "1.5")\npublic actual fun String(chars: CharArray): String {\n    var result = ""\n    for (char in
chars) {\n        result += char\n    }\n    return result\n}\n\n**\n * Converts the characters from a portion of the
specified array to a string.\n\n * \n * @throws IndexOutOfBoundsException if either [offset] or [length] are less than

```

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zero or `offset + length` is out of [chars] array bounds.
*/@SinceKotlin("1.2")@Deprecated("Use
CharArray.concatToString(startIndex, endIndex) instead", ReplaceWith("chars.concatToString(offset, offset +
length))")@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5")public actual fun String(chars:
CharArray, offset: Int, length: Int): String {
    if (offset < 0 || length < 0 || chars.size - offset < length)
        throw
IndexOutOfBoundsException("size: ${chars.size}; offset: $offset; length: $length")
    var result = ""
    for
(index in offset until offset + length) {
        result += chars[index]
    }
    return result
}

Concatenates characters in this [CharArray] into a String.
*/@SinceKotlin("1.4")@WasExperimental(ExperimentalStdlibApi::class)public actual fun
CharArray.concatToString(): String {
    var result = ""
    for (char in this) {
        result += char
    }
    return result
}

Concatenates characters in this [CharArray] or its subrange into a String.
*/@param startIndex the beginning (inclusive) of the subrange of characters, 0 by default.
*/@param endIndex the end (exclusive) of the subrange of characters, size of this array by default.
*/@throws IndexOutOfBoundsException if [startIndex] is less than zero or [endIndex] is greater than the size of this array.
*/@throws IllegalArgumentException if [startIndex] is greater than [endIndex].
*/@SinceKotlin("1.4")@WasExperimental(ExperimentalStdlibApi::class)@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")public actual fun CharArray.concatToString(startIndex:
Int = 0, endIndex: Int = this.size): String {
    AbstractList.checkBoundsIndexes(startIndex, endIndex, this.size)
    var result = ""
    for (index in startIndex until endIndex) {
        result += this[index]
    }
    return
result
}

Returns a [CharArray] containing characters of this string.
*/@SinceKotlin("1.4")@WasExperimental(ExperimentalStdlibApi::class)public actual fun
String.toCharArray(): CharArray {
    return CharArray(length) { get(it) }
}

Returns a [CharArray]
containing characters of this string or its substring.
*/@param startIndex the beginning (inclusive) of the
substring, 0 by default.
*/@param endIndex the end (exclusive) of the substring, length of this string by default.
*/@throws IndexOutOfBoundsException if [startIndex] is less than zero or [endIndex] is greater than the length
of this string.
*/@throws IllegalArgumentException if [startIndex] is greater than [endIndex].
*/@SinceKotlin("1.4")@WasExperimental(ExperimentalStdlibApi::class)@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")public
actual fun String.toCharArray(startIndex: Int = 0, endIndex: Int = this.length): CharArray {
    AbstractList.checkBoundsIndexes(startIndex, endIndex, length)
    return CharArray(endIndex - startIndex) {
        get(startIndex + it)
    }
}

Decodes a string from the bytes in UTF-8 encoding in this array.
*/@throws Malformed byte sequences are replaced by the replacement char `      `.
*/@SinceKotlin("1.4")@WasExperimental(ExperimentalStdlibApi::class)public actual fun
ByteArray.decodeToString(): String {
    return decodeUtf8(this, 0, size, false)
}

Decodes a string from
the bytes in UTF-8 encoding in this array or its subrange.
*/@param startIndex the beginning (inclusive) of the
subrange to decode, 0 by default.
*/@param endIndex the end (exclusive) of the subrange to decode, size of this
array by default.
*/@param throwOnInvalidSequence
specifies whether to throw an exception on malformed byte sequence or replace it by the replacement char
`      `.
*/@throws IndexOutOfBoundsException if [startIndex] is less than zero or [endIndex] is greater
than the size of this array.
*/@throws IllegalArgumentException if [startIndex] is greater than [endIndex].
*/@throws CharacterCodingException if the byte array contains malformed UTF-8 byte sequence and
[throwOnInvalidSequence] is true.
*/@SinceKotlin("1.4")@WasExperimental(ExperimentalStdlibApi::class)@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")public actual fun ByteArray.decodeToString(
    startIndex: Int = 0,
    endIndex: Int = this.size,
    throwOnInvalidSequence: Boolean = false): String {
    AbstractList.checkBoundsIndexes(startIndex, endIndex, this.size)
    return decodeUtf8(this, startIndex, endIndex,
throwOnInvalidSequence)
}

Encodes this string to an array of bytes in UTF-8 encoding.
*/@param Any malformed char sequence is replaced by the replacement byte sequence.
*/@SinceKotlin("1.4")@WasExperimental(ExperimentalStdlibApi::class)public actual fun

```

```

String.encodeToByteArray(): ByteArray {
    return encodeUtf8(this, 0, length, false)
}

/**
 * Encodes this string or its substring to an array of bytes in UTF-8 encoding.
 * @param startIndex the beginning (inclusive) of the substring to encode, 0 by default.
 * @param endIndex the end (exclusive) of the substring to encode, length of this string by default.
 * @param throwOnInvalidSequence specifies whether to throw an exception on malformed char sequence or replace.
 * @throws IndexOutOfBoundsException if [startIndex] is less than zero or [endIndex] is greater than the length of this string.
 * @throws IllegalArgumentException if [startIndex] is greater than [endIndex].
 * @throws CharacterCodingException if this string contains malformed char sequence and [throwOnInvalidSequence] is true.
 */
@SinceKotlin("1.4")
@WasExperimental(ExperimentalStdlibApi::class)
@Suppress("ACTUAL_FUNCTIONS_WITH_DEFAULT_ARGUMENTS")
public actual fun String.encodeToByteArray(
    startIndex: Int = 0,
    endIndex: Int = this.length,
    throwOnInvalidSequence: Boolean = false
): ByteArray {
    AbstractList.checkBoundsIndexes(startIndex, endIndex, length)
    return encodeUtf8(this, startIndex, endIndex, throwOnInvalidSequence)
}

/**
 * Returns a copy of this string converted to upper case using the rules of the default locale.
 */
@Deprecated("Use uppercase() instead.", ReplaceWith("uppercase()"))
@DeprecatedSinceKotlin(warningSince = "1.5")
@kotlin.internal.InlineOnly
public actual inline fun String.toUpperCase(): String =
    asDynamic().toUpperCase()

/**
 * Returns a copy of this string converted to upper case using Unicode mapping rules of the invariant locale.
 * This function supports one-to-many and many-to-one character mapping, thus the length of the returned string can be different from the length of the original string.
 * @sample samples.text.Strings.uppercase
 */
@SinceKotlin("1.5")
@WasExperimental(ExperimentalStdlibApi::class)
@kotlin.internal.InlineOnly
public actual inline fun String.toUpperCase(): String =
    asDynamic().toUpperCase()

/**
 * Returns a copy of this string converted to lower case using the rules of the default locale.
 */
@Deprecated("Use lowercase() instead.", ReplaceWith("lowercase()"))
@DeprecatedSinceKotlin(warningSince = "1.5")
@kotlin.internal.InlineOnly
public actual inline fun String.toLowerCase(): String =
    asDynamic().toLowerCase()

/**
 * Returns a copy of this string converted to lower case using Unicode mapping rules of the invariant locale.
 * This function supports one-to-many and many-to-one character mapping, thus the length of the returned string can be different from the length of the original string.
 * @sample samples.text.Strings.lowercase
 */
@SinceKotlin("1.5")
@WasExperimental(ExperimentalStdlibApi::class)
@kotlin.internal.InlineOnly
public actual inline fun String.toLowerCase(): String =
    asDynamic().toLowerCase()

/**
 * Returns the index of the first occurrence of the specified string in this string, starting from the specified index.
 */
@kotlin.internal.InlineOnly
internal actual inline fun String.nativeIndexOf(str: String, fromIndex: Int): Int =
    asDynamic().indexOf(str, fromIndex)

/**
 * Returns the index of the last occurrence of the specified string in this string, starting from the specified index.
 */
@kotlin.internal.InlineOnly
internal actual inline fun String.nativeLastIndexOf(str: String, fromIndex: Int): Int =
    asDynamic().lastIndexOf(str, fromIndex)

/**
 * Returns true if the specified string starts with the specified prefix at the specified position.
 */
@kotlin.internal.InlineOnly
internal inline fun String.nativeStartsWith(s: String, position: Int): Boolean =
    asDynamic().startsWith(s, position)

/**
 * Returns true if the specified string ends with the specified suffix.
 */
@kotlin.internal.InlineOnly
public actual inline fun String.endsWith(s: String): Boolean =
    asDynamic().endsWith(s)

/**
 * Returns a substring of this string, starting at the specified index.
 */
@kotlin.internal.InlineOnly
public actual inline fun String.substring(startIndex: Int): String =
    asDynamic().substring(startIndex)

/**
 * Returns a substring of this string, starting at the specified index and ending at the specified index.
 */
@kotlin.internal.InlineOnly
public actual inline fun String.substring(startIndex: Int, endIndex: Int): String =
    asDynamic().substring(startIndex, endIndex)

/**
 * Returns a new string that is the concatenation of this string and the specified string.
 */
@Deprecated("Use String.plus() instead", ReplaceWith("this + str"))
@DeprecatedSinceKotlin(warningSince = "1.6")
@kotlin.internal.InlineOnly
public inline fun String.concat(str: String): String =
    asDynamic().concat(str)

/**
 * Returns true if this string matches the specified regular expression.
 */
@Deprecated("Use Regex.findAll() instead or invoke matches() on String dynamically: this.asDynamic().match(regex)")
@DeprecatedSinceKotlin(warningSince = "1.6")
@kotlin.internal.InlineOnly
public inline fun String.match(regex: String): Array<String>? =
    asDynamic().match(regex)

//native public fun String.trim(): String
//TODO: String.replace to implement

```

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effective trimLeading and trimTrailing\n\n@kotlin.internal.InlineOnly\ninternal inline fun
String.nativeReplace(pattern: RegExp, replacement: String): String = asDynamic().replace(pattern,
replacement)\n\n/**\n * Compares two strings lexicographically, optionally ignoring case differences.\n *\n * If
[ignoreCase] is true, the result of `Char.toUpperCaseChar().toLowerCaseChar()`
on each character is compared.\n
*/\n@SinceKotlin("1.2")\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
actual fun String.compareTo(other: String, ignoreCase: Boolean = false): Int {\n    if (ignoreCase) {\n        val n1 =
this.length\n        val n2 = other.length\n        val min = minOf(n1, n2)\n        if (min == 0) return n1 - n2\n        for
(index in 0 until min) {\n            var thisChar = this[index]\n            var otherChar = other[index]\n            if
(thisChar != otherChar) {\n                thisChar = thisChar.toUpperCaseChar()\n                otherChar =
otherChar.toUpperCaseChar()\n                if (thisChar != otherChar) {\n                    thisChar =
thisChar.toLowerCaseChar()\n                    otherChar = otherChar.toLowerCaseChar()\n                    if (thisChar !=
otherChar) {\n                        return thisChar.compareTo(otherChar)\n                    }\n                }\n            }\n        }\n        return n1 - n2\n    } else {\n        return compareTo(other)\n    }\n}\n\n/**\n * Returns `true` if the
contents of this char sequence are equal to the contents of the specified [other],\n * i.e. both char sequences contain
the same number of the same characters in the same order.\n *\n * @sample samples.text.Strings.contentEquals\n
*/\n@SinceKotlin("1.5")\npublic actual infix fun CharSequence?.contentEquals(other: CharSequence?): Boolean =
contentEqualsImpl(other)\n\n/**\n * Returns `true` if the contents of this char sequence are equal to the contents of
the specified [other], optionally ignoring case difference.\n *\n * @param ignoreCase `true` to ignore character case
when comparing contents.\n *\n * @sample samples.text.Strings.contentEquals\n */\n@SinceKotlin("1.5")\npublic
actual fun CharSequence?.contentEquals(other: CharSequence?, ignoreCase: Boolean): Boolean {\n    return if
(ignoreCase)\n        this.contentEqualsIgnoreCaseImpl(other)\n    else\n        this.contentEqualsImpl(other)\n}\n\nprivate val STRING_CASE_INSENSITIVE_ORDER =
Comparator<String> { a, b -> a.compareTo(b, ignoreCase = true) }\n\n@SinceKotlin("1.2")\npublic actual val
String.Companion.CASE_INSENSITIVE_ORDER: Comparator<String>\n    get() =
STRING_CASE_INSENSITIVE_ORDER\n", "/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("CharsKt")\n\npackage kotlin.text\n\n/**\n
 * Returns the numeric value of the decimal digit that this Char represents.\n * Throws an exception if this Char is
not a valid decimal digit.\n *\n * A Char is considered to represent a decimal digit if [isDigit] is true for the Char.\n
 * In this case, the Unicode decimal digit value of the character is returned.\n *\n * @sample
samples.text.Chars.digitToInt\n
*/\n\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic
fun Char.digitToInt(): Int {\n    return digitOf(this, 10).also {\n        if (it < 0) throw
IllegalArgumentException("Char $this is not a decimal digit")\n    }\n}\n\n/**\n * Returns the numeric value of the
digit that this Char represents in the specified [radix].\n * Throws an exception if the [radix] is not in the range
`2..36` or if this Char is not a valid digit in the specified [radix].\n *\n * A Char is considered to represent a digit in
the specified [radix] if at least one of the following is true:\n * - [isDigit] is `true` for the Char and the Unicode
decimal digit value of the character is less than the specified [radix]. In this case the decimal digit value is
returned.\n * - The Char is one of the uppercase Latin letters 'A' through 'Z' and its [code] is less than `radix +
'A'.code - 10`. In this case, `this.code - 'A'.code + 10` is returned.\n * - The Char is one of the lowercase Latin
letters 'a' through 'z' and its [code] is less than `radix + 'a'.code - 10`. In this case, `this.code - 'a'.code + 10` is returned.\n * - The
Char is one of the fullwidth Latin capital letters "\uFF21" through "\uFF3A" and its [code] is less than `radix +
0xFF21 - 10`. In this case, `this.code - 0xFF21 + 10` is returned.\n * - The Char is one of the fullwidth Latin small
letters "\uFF41" through "\uFF5A" and its [code] is less than `radix + 0xFF41 - 10`. In this case, `this.code - 0xFF41
+ 10` is returned.\n *\n * @sample samples.text.Chars.digitToInt\n

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*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Char.digitToInt(radix: Int): Int {\n    return digitToIntOrNull(radix) ?: throw IllegalArgumentException("\Char $this is not a digit in the given radix=$radix")\n}\n\n/**\n * Returns the numeric value of the decimal digit that this Char represents, or `null` if this Char is not a valid decimal digit.\n * A Char is considered to represent a decimal digit if [isDigit] is true for the Char.\n * In this case, the Unicode decimal digit value of the character is returned.\n *\n * @sample samples.text.Chars.digitToIntOrNull\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Char.digitToIntOrNull(): Int? {\n    return digitOf(this, 10).takeIf { it >= 0 }\n}\n\n/**\n * Returns the numeric value of the digit that this Char represents in the specified [radix], or `null` if this Char is not a valid digit in the specified [radix].\n * Throws an exception if the [radix] is not in the range `2..36`.\n *\n * A Char is considered to represent a digit in the specified [radix] if at least one of the following is true:\n * - [isDigit] is `true` for the Char and the Unicode decimal digit value of the character is less than the specified [radix]. In this case the decimal digit value is returned.\n * - The Char is one of the uppercase Latin letters 'A' through 'Z' and its [code] is less than `radix + 'A'.code - 10`. In this case, `this.code - 'A'.code + 10` is returned.\n * - The Char is one of the lowercase Latin letters 'a' through 'z' and its [code] is less than `radix + 'a'.code - 10`. In this case, `this.code - 'a'.code + 10` is returned.\n * - The Char is one of the fullwidth Latin capital letters '\uFF21' through '\uFF3A' and its [code] is less than `radix + 0xFF21 - 10`. In this case, `this.code - 0xFF21 + 10` is returned.\n * - The Char is one of the fullwidth Latin small letters '\uFF41' through '\uFF5A' and its [code] is less than `radix + 0xFF41 - 10`. In this case, `this.code - 0xFF41 + 10` is returned.\n *\n * @sample samples.text.Chars.digitToIntOrNull\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Char.digitToIntOrNull(radix: Int): Int? {\n    checkRadix(radix)\n    return digitOf(this, radix).takeIf { it >= 0 }\n}\n\n/**\n * Returns the Char that represents this decimal digit.\n * Throws an exception if this value is not in the range `0..9`.\n *\n * If this value is in `0..9`, the decimal digit Char with code `0'.code + this` is returned.\n *\n * @sample samples.text.Chars.digitToChar\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Int.digitToChar(): Char {\n    if (this in 0..9) {\n        return '0' + this\n    }\n    throw IllegalArgumentException("\Int $this is not a decimal digit")\n}\n\n/**\n * Returns the Char that represents this numeric digit value in the specified [radix].\n * Throws an exception if the [radix] is not in the range `2..36` or if this value is not in the range `0` until radix`.\n *\n * If this value is less than `10`, the decimal digit Char with code `0'.code + this` is returned.\n * Otherwise, the uppercase Latin letter with code `A'.code + this - 10` is returned.\n *\n * @sample samples.text.Chars.digitToChar\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Int.digitToChar(radix: Int): Char {\n    if (radix !in 2..36) {\n        throw IllegalArgumentException("Invalid radix: $radix. Valid radix values are in range 2..36")\n    }\n    if (this < 0 || this >= radix) {\n        throw IllegalArgumentException("Digit $this does not represent a valid digit in radix $radix")\n    }\n    return if (this < 10) {\n        '0' + this\n    } else {\n        'A' + this - 10\n    }\n}\n\n/**\n * Converts this character to lower case using Unicode mapping rules of the invariant locale.\n *\n * @sample samples.text.Chars.lowercase\n */\n*\n@Deprecated("Use lowercaseChar() instead.")\nReplaceWith("lowercaseChar()")\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic expect fun Char.toLowerCase(): Char\n\n/**\n * Converts this character to lower case using Unicode mapping rules of the invariant locale.\n *\n * This function performs one-to-one character mapping.\n * To support one-to-many character mapping use the [lowercase] function.\n * If this character has no mapping equivalent, the character itself is returned.\n *\n * @sample samples.text.Chars.lowercase\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Char.lowercaseChar(): Char\n\n/**\n * Converts this character to lower case using Unicode mapping rules of the invariant locale.\n *\n * This function supports one-to-many character mapping, thus the length of the returned string can be greater than one.\n * For example, `'\u0130'.lowercase()` returns `'\u0069\u0307'`, where

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`'\u0130'` is the LATIN CAPITAL LETTER I WITH DOT ABOVE character (`\ufffd\uuffd`).  
 If this character has no lower case mapping, the result of `toString()` of this char is returned.  
 @sample samples.text.Chars.lowercase

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*^@SinceKotlin("1.5")^@WasExperimental(ExperimentalStdlibApi::class)^public expect fun
Char.lowercase(): String\n\n**\n * Converts this character to upper case using Unicode mapping rules of the
invariant locale.\n *^@Deprecated("\u201cUse uppercaseChar() instead.\u201c",
ReplaceWith("\u201cuppercaseChar()\u201c"))^@DeprecatedSinceKotlin(warningSince
= "1.5")^public expect fun Char.toUpperCase(): Char\n\n**\n * Converts this character to upper case using
Unicode mapping rules of the invariant locale.\n *\n * This function performs one-to-one character mapping.\n * To
support one-to-many character mapping use the [uppercase] function.\n * If this character has no mapping
equivalent, the character itself is returned.\n *\n * @sample samples.text.Chars.uppercase
*^@SinceKotlin("1.5")^@WasExperimental(ExperimentalStdlibApi::class)^public expect fun
Char.uppercaseChar(): Char\n\n**\n * Converts this character to upper case using Unicode mapping rules of the
invariant locale.\n *\n * This function supports one-to-many character mapping, thus the length of the returned
string can be greater than one.\n * For example, '\u0046\u0046' returns '\u0046\u0046', where
'\u0046\u0046' is the LATIN SMALL LIGATURE FF character (\ufffd\uuffd\uuffd).  

    If this character has no upper case mapping,
    the result of toString() of this char is returned.  

    @sample samples.text.Chars.uppercase
*^@SinceKotlin("1.5")^@WasExperimental(ExperimentalStdlibApi::class)^public expect fun
Char.uppercase(): String\n\n**\n * Converts this character to title case using Unicode mapping rules of the
invariant locale.\n *\n * This function performs one-to-one character mapping.\n * To support one-to-many
character mapping use the [titlecase] function.\n * If this character has no mapping equivalent, the result of calling
[uppercaseChar] is returned.\n *\n * @sample samples.text.Chars.titlecase
*^@SinceKotlin("1.5")^public expect fun Char.titlecaseChar(): Char\n\n**\n * Converts this character to title case using Unicode mapping rules of
the invariant locale.\n *\n * This function supports one-to-many character mapping, thus the length of the returned
string can be greater than one.\n * For example, '\u0046\u0066' returns '\u0046\u0066', where
'\u0046\u0066'
is the LATIN SMALL LIGATURE FF character (\ufffd\uuffd\uuffd).  

    If this character has no title case mapping, the result of [uppercase] is returned instead.  

    @sample samples.text.Chars.titlecase
*^@SinceKotlin("1.5")^public fun Char.titlecase(): String = titlecaseImpl()\n\n**\n * Concatenates this Char
and a String.\n *\n * @sample samples.text.Chars.plus
*^@kotlin.internal.InlineOnly^public inline operator fun
Char.plus(other: String): String = this.toString() + other\n\n**\n * Returns `true` if this character is equal to the
[other] character, optionally ignoring character case.\n *\n * Two characters are considered equal ignoring case if
Char.uppercaseChar().lowercaseChar() on each character produces the same result.\n *\n * @param ignoreCase
`true` to ignore character case when comparing characters. By default `false`.  

    @sample samples.text.Chars.equals
*^public fun Char.equals(other: Char, ignoreCase: Boolean = false): Boolean {\n    if
(this ==
other) return true\n    if (!ignoreCase) return false\n\n    val thisUpper = this.uppercaseChar()\n    val otherUpper =
other.uppercaseChar()\n\n    return thisUpper == otherUpper || thisUpper.lowercaseChar() ==
otherUpper.lowercaseChar()\n}\n\n**\n * Returns `true` if this character is a Unicode surrogate code unit.\n
*^public fun Char.isSurrogate(): Boolean = this in Char.MIN_SURROGATE..Char.MAX_SURROGATE\n\n**\n
* Returns the Unicode general category of this character.\n *^@SinceKotlin("1.5")^public expect val
Char.category: CharCategory\n\n**\n * Returns `true` if this character (Unicode code point) is defined in
Unicode.\n *\n * A character is considered to be defined in Unicode if its [category] is not
[CharCategory.UNASSIGNED].\n *^@SinceKotlin("1.5")^public expect fun Char.isDefined():
Boolean\n\n**\n * Returns `true` if this character is a letter.\n *\n * A character is considered to be a letter if its
[category] is [CharCategory.UPPERCASE_LETTER],\n * [CharCategory.LOWERCASE_LETTER],

```









```

sequence is empty or has more than one element.\n * The operation is _terminal_.\n */\npublic
fun <T> Sequence<T>.singleOrNull(): T? {\n    val iterator = iterator()\n    if (!iterator.hasNext())\n        return
null\n    val single = iterator.next()\n    if (iterator.hasNext())\n        return null\n    return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one
element was found.\n * The operation is _terminal_.\n */\npublic inline fun <T>
Sequence<T>.singleOrNull(predicate: (T) -> Boolean): T? {\n    var single: T? = null\n    var found = false\n    for
(element in this) {\n        if (predicate(element)) {\n            if (found) return null\n            single = element\n
found = true\n        }\n    }\n    if (!found) return null\n    return single\n}\n\n/**\n * Returns a sequence containing
all elements except first [n] elements.\n * The operation is _intermediate_ and _stateless_.\n * \n * @throws
IllegalArgumentOutOfRangeException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*/\npublic fun <T> Sequence<T>.drop(n: Int): Sequence<T> {\n    require(n >= 0) {\n        "Requested element count $n
is less than zero." }\n    return when {\n        n == 0 -> this\n        this is DropTakeSequence -> this.drop(n)\n
else -> DropSequence(this, n)\n    }\n}\n\n/**\n * Returns a sequence containing all elements except first elements
that satisfy the given [predicate].\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*/\npublic fun <T> Sequence<T>.dropWhile(predicate: (T)
-> Boolean): Sequence<T> {\n    return DropWhileSequence(this, predicate)\n}\n\n/**\n * Returns a sequence
containing only elements matching the given [predicate].\n * The operation is _intermediate_ and _stateless_.\n
* \n * @sample samples.collections.Collections.Filtering.filter\n
*/\npublic fun <T> Sequence<T>.filter(predicate:
(T) -> Boolean): Sequence<T> {\n    return
FilteringSequence(this, true, predicate)\n}\n\n/**\n * Returns a sequence containing only elements matching the
given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and
returns the result of predicate evaluation on the element.\n * The operation is _intermediate_ and _stateless_.\n
* \n * @sample samples.collections.Collections.Filtering.filterIndexed\n
*/\npublic fun <T>
Sequence<T>.filterIndexed(predicate: (index: Int, T) -> Boolean): Sequence<T> {\n    // TODO: Rewrite with
generalized MapFilterIndexingSequence\n    return
TransformingSequence(FilteringSequence(IndexingSequence(this), true, { predicate(it.index, it.value) } ), { it.value
})\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param
[predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate
evaluation on the element.\n * The operation is _terminal_.\n
* \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n
*/\npublic inline fun <T, C :
MutableCollection<in T>> Sequence<T>.filterIndexedTo(destination: C, predicate: (index: Int, T) -> Boolean): C
{\n    forEachIndexed { index, element ->\n        if (predicate(index, element)) destination.add(element)\n    }\n
return destination\n}\n\n/**\n * Returns a sequence containing all elements that are instances of specified type
parameter R.\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample
samples.collections.Collections.Filtering.filterIsInstance\n
*/\npublic inline fun <reified R>
Sequence<*>.filterIsInstance(): Sequence<@kotlin.internal.NoInfer R> {\n
@Suppress("UNCHECKED_CAST")\n    return filter { it is R } as Sequence<R>\n}\n\n/**\n * Appends all
elements that are instances of specified type parameter R to the given [destination].\n * The operation is
_terminal_.\n * \n * @sample samples.collections.Collections.Filtering.filterIsInstanceTo\n
*/\npublic inline fun <reified R, C : MutableCollection<in R>> Sequence<*>.filterIsInstanceTo(destination: C): C
{\n    for (element in this) if (element is R) destination.add(element)\n    return destination\n}\n\n/**\n * Returns a
sequence containing all elements not matching the given [predicate].\n * The operation is _intermediate_ and
_stateless_.\n * \n * @sample samples.collections.Collections.Filtering.filter\n
*/\npublic fun <T>
Sequence<T>.filterNot(predicate: (T) -> Boolean): Sequence<T> {\n    return FilteringSequence(this, false,
predicate)\n}\n\n/**\n * Returns a sequence containing all elements that are not `null`.\n * The operation is
_intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Filtering.filterNotNull\n
*/\npublic fun <T : Any> Sequence<T?>.filterNotNull(): Sequence<T> {\n

```

```

@Suppress("UNCHECKED_CAST")\n    return filterNot { it == null } as Sequence<T>\n}\n\n/**\n * Appends all
elements that are not `null`
to the given [destination].\n *\n * The operation is _terminal_.\n *\n * @sample
samples.collections.Collections.Filtering.filterNotNullTo\n *\n\npublic fun <C : MutableCollection<in T>, T : Any>
Sequence<T?>.filterNotNullTo(destination: C): C {\n    for (element in this) if (element != null)
destination.add(element)\n    return destination\n}\n\n/**\n * Appends all elements not matching the given
[predicate] to the given [destination].\n *\n * The operation is _terminal_.\n *\n * @sample
samples.collections.Collections.Filtering.filterTo\n *\n\npublic inline fun <T, C : MutableCollection<in T>>
Sequence<T>.filterNotTo(destination: C, predicate: (T) -> Boolean): C {\n    for (element in this) if
(!predicate(element)) destination.add(element)\n    return destination\n}\n\n/**\n * Appends all elements matching
the given [predicate] to the given [destination].\n *\n * The operation is _terminal_.\n *\n * @sample
samples.collections.Collections.Filtering.filterTo\n *\n\npublic inline fun
<T, C : MutableCollection<in T>> Sequence<T>.filterTo(destination: C, predicate: (T) -> Boolean): C {\n    for
(element in this) if (predicate(element)) destination.add(element)\n    return destination\n}\n\n/**\n * Returns a
sequence containing first [n] elements.\n *\n * The operation is _intermediate_ and _stateless_.\n *\n * @throws
IllegalArgumentException if [n] is negative.\n *\n * @sample
samples.collections.Collections.Transformations.take\n *\n\npublic fun <T> Sequence<T>.take(n: Int): Sequence<T>
{\n    require(n >= 0) { "Requested element count $n is less than zero." }\n    return when {\n        n == 0 ->
emptySequence()\n        this is DropTakeSequence -> this.take(n)\n        else -> TakeSequence(this, n)\n    }\n}\n\n/**\n * Returns a sequence containing first elements satisfying the given [predicate].\n *\n * The operation
is _intermediate_ and _stateless_.\n *\n * @sample samples.collections.Collections.Transformations.take\n
*\n\npublic fun <T> Sequence<T>.takeWhile(predicate:
(T) -> Boolean): Sequence<T> {\n    return TakeWhileSequence(this, predicate)\n}\n\n/**\n * Returns a sequence
that yields elements of this sequence sorted according to their natural sort order.\n *\n * The sort is _stable_. It
means that equal elements preserve their order relative to each other after sorting.\n *\n * The operation is
_intermediate_ and _stateful_.\n *\n\npublic fun <T : Comparable<T>> Sequence<T>.sorted(): Sequence<T> {\n    return object : Sequence<T> {\n        override fun iterator(): Iterator<T> {\n            val sortedList =
this@sorted.toMutableList()\n            sortedList.sort()\n            return sortedList.iterator()\n        }\n    }\n}\n\n/**\n * Returns a sequence that yields elements of this sequence sorted according to natural sort order of the value
returned by specified [selector] function.\n *\n * The sort is _stable_. It means that equal elements preserve their
order relative to each other after sorting.\n *\n * The operation is
_intermediate_ and _stateful_.\n *\n * @sample samples.collections.Collections.Sorting.sortedBy\n *\n\npublic
inline fun <T, R : Comparable<R>> Sequence<T>.sortedBy(crossinline selector: (T) -> R?): Sequence<T> {\n    return
sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a sequence that yields elements of this sequence
sorted descending according to natural sort order of the value returned by specified [selector] function.\n *\n * The
sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n *\n * The
operation is _intermediate_ and _stateful_.\n *\n\npublic inline fun <T, R : Comparable<R>>
Sequence<T>.sortedByDescending(crossinline selector: (T) -> R?): Sequence<T> {\n    return
sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a sequence that yields elements of this sequence
sorted descending according to their natural sort order.\n *\n * The sort is _stable_. It means that equal elements
preserve their order relative
to each other after sorting.\n *\n * The operation is _intermediate_ and _stateful_.\n *\n\npublic fun <T :
Comparable<T>> Sequence<T>.sortedDescending(): Sequence<T> {\n    return
sortedWith(reverseOrder())\n}\n\n/**\n * Returns a sequence that yields elements of this sequence sorted according
to the specified [comparator].\n *\n * The sort is _stable_. It means that equal elements preserve their order relative
to each other after sorting.\n *\n * The operation is _intermediate_ and _stateful_.\n *\n\npublic fun <T>
Sequence<T>.sortedWith(comparator: Comparator<in T>): Sequence<T> {\n    return object : Sequence<T> {\n        override fun iterator(): Iterator<T> {\n            val sortedList = this@sortedWith.toMutableList()\n

```

```
sortedList.sortWith(comparator)\n        return sortedList.iterator()\n    }\n}\n\n/**\n * Returns a [Map]\n * containing key-value pairs provided by [transform] function\n * applied to elements of the given sequence.\n * \n * If any\n * of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the\n * entry iteration order of the original sequence.\n * \n * The operation is _terminal_.\n * \n * @sample\n * samples.collections.Collections.Transformations.associate\n */\npublic inline fun <T, K, V>\nSequence<T>.associate(transform: (T) -> Pair<K, V>): Map<K, V> {\n    return associateTo(LinkedHashMap<K,\n * V>(), transform)\n}\n\n/**\n * Returns a [Map] containing the elements from the given sequence indexed by the\n * key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the\n * same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry\n * iteration order of the original sequence.\n * \n * The operation is _terminal_.\n * \n * @sample\n * samples.collections.Collections.Transformations.associateBy\n */\npublic inline fun <T, K>\nSequence<T>.associateBy(keySelector: (T) -> K): Map<K, T> {\n    return associateByTo(LinkedHashMap<K, T>(), keySelector)\n}\n\n/**\n * Returns a [Map] containing the\n * values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given\n * sequence.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to\n * the map.\n * \n * The returned map preserves the entry iteration order of the original sequence.\n * \n * The\n * operation is _terminal_.\n * \n * @sample\n * samples.collections.Collections.Transformations.associateByWithValueTransform\n */\npublic inline fun <T, K, V>\nSequence<T>.associateBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, V> {\n    return\n * associateByTo(LinkedHashMap<K, V>(), keySelector, valueTransform)\n}\n\n/**\n * Populates and returns the\n * [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to\n * each element of the given sequence\n * and value is the element itself.\n * \n * If any\n * two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The\n * operation is _terminal_.\n * \n * @sample\n * samples.collections.Collections.Transformations.associateByTo\n */\npublic inline fun <T, K, M : MutableMap<in K, in T>>\nSequence<T>.associateByTo(destination: M,\n * keySelector: (T) -> K): M {\n    for (element in this) {\n        destination.put(keySelector(element), element)\n    }\n    return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where\n * key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function\n * applied to elements of the given sequence.\n * \n * If any two elements would have the same key returned by\n * [keySelector] the last one gets added to the map.\n * \n * The operation is _terminal_.\n * \n * @sample\n * samples.collections.Collections.Transformations.associateByToWithValueTransform\n */\npublic inline fun <T, K,\n * V, M : MutableMap<in\n * K, in V>>\nSequence<T>.associateByTo(destination: M, keySelector: (T) -> K, valueTransform: (T) -> V): M {\n    for (element in this) {\n        destination.put(keySelector(element), valueTransform(element))\n    }\n    return\n * destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by\n * [transform] function applied to each element of the given sequence.\n * \n * If any of two pairs would have the same\n * key the last one gets added to the map.\n * \n * The operation is _terminal_.\n * \n * @sample\n * samples.collections.Collections.Transformations.associateTo\n */\npublic inline fun <T, K, V, M : MutableMap<in\n * K, in V>>\nSequence<T>.associateTo(destination: M, transform: (T) -> Pair<K, V>): M {\n    for (element in this)\n * {\n        destination += transform(element)\n    }\n    return destination\n}\n\n/**\n * Returns a [Map] where keys are\n * elements from the given sequence and values are\n * produced by the [valueSelector] function\n * applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The\n * returned map preserves the entry iteration order of the original sequence.\n * \n * The operation is _terminal_.\n * \n * \n * @sample\n * samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin("1.3")\npublic\n * inline fun <K, V>\nSequence<K>.associateWith(valueSelector: (K) -> V): Map<K, V> {\n    val result =\n * LinkedHashMap<K, V>()\n    return associateWithTo(result, valueSelector)\n}\n\n/**\n * Populates and returns the\n * [destination] mutable map with key-value pairs for each element of the given sequence,\n * where key is the element
```

itself and value is provided by the [valueSelector] function applied to that key.

If any two elements are equal, the last one overwrites the former value in the map.

The operation is `_terminal_`.

`@sample`

```

samples.collections.Collections.Transformations.associateWithTo
*^@SinceKotlin("1.3")
npublic
inline fun <K, V, M : MutableMap<in K, in V>> Sequence<K>.associateWithTo(destination: M, valueSelector: (K
-> V): M {
    for (element in this) {
        destination.put(element, valueSelector(element))
    }
    return
destination
}
}
n/**
* Appends all elements to the given [destination] collection.
* The operation is
_terminal_
n^public fun <T, C : MutableCollection<in T>> Sequence<T>.toCollection(destination: C): C {
    for (item in this) {
        destination.add(item)
    }
    return destination
}
}
n/**
* Returns a new [HashSet] of
all elements.
* The operation is _terminal_.
n^public fun <T> Sequence<T>.toHashSet(): HashSet<T> {
    return toCollection(HashSet<T>())
}
}
n/**
* Returns a [List] containing all elements.
* The operation is
_terminal_
n^public fun <T> Sequence<T>.toList(): List<T> {
    return
this.toMutableList().optimizeReadOnlyList()
}
}
n/**
* Returns a new [MutableList] filled with all elements of
this
sequence.
* The operation is _terminal_.
n^public fun <T> Sequence<T>.toMutableList():
MutableList<T> {
    return toCollection(ArrayList<T>())
}
}
n/**
* Returns a [Set] of all elements.
* The returned set preserves the element iteration order of the original sequence.
* The operation is
_terminal_
n^public fun <T> Sequence<T>.toSet(): Set<T> {
    return
toCollection(LinkedHashSet<T>()).optimizeReadOnlySet()
}
}
n/**
* Returns a single sequence of all elements
from results of [transform] function being invoked on each element of original sequence.
* The operation is
_intermediate_ and
_stateless_.
n^@sample
samples.collections.Collections.Transformations.flatMap
*^@SinceKotlin("1.4")
n^@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
n^@OverloadResolution
ByLambdaReturnType
n^@kotlin.jvm.JvmName("flatMapIterable")
npublic fun <T, R>
Sequence<T>.flatMap(transform: (T) -> Iterable<R>): Sequence<R> {
    return FlatteningSequence(this,
transform, Iterable<R>::iterator)
}
}
n/**
* Returns a single sequence of all elements from results of [transform]
function being invoked on each element of original sequence.
* The operation is
_intermediate_ and
_stateless_.
n^@sample
samples.collections.Collections.Transformations.flatMap
n^public fun <T, R>
Sequence<T>.flatMap(transform: (T) -> Sequence<R>): Sequence<R> {
    return FlatteningSequence(this,
transform, Sequence<R>::iterator)
}
}
n/**
* Returns a single sequence of all elements yielded from results of
[transform] function being invoked on each element
* and its index in the original sequence.
* The operation
is
_intermediate_ and
_stateless_.
n^@sample
samples.collections.Collections.Transformations.flatMapIndexed
n
*^@SinceKotlin("1.4")
n^@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
n^@OverloadResolution
ByLambdaReturnType
n^@kotlin.jvm.JvmName("flatMapIndexedIterable")
npublic fun <T, R>
Sequence<T>.flatMapIndexed(transform:
(index: Int, T) -> Iterable<R>): Sequence<R> {
    return flatMapIndexed(this, transform,
Iterable<R>::iterator)
}
}
n/**
* Returns a single sequence of all elements yielded from results of [transform]
function being invoked on each element
* and its index in the original sequence.
* The operation is
_intermediate_ and
_stateless_.
n^@sample
samples.collections.Collections.Transformations.flatMapIndexed
n
*^@SinceKotlin("1.4")
n^@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
n^@OverloadResolution
ByLambdaReturnType
n^@kotlin.jvm.JvmName("flatMapIndexedSequence")
npublic fun <T, R>
Sequence<T>.flatMapIndexed(transform: (index: Int, T) -> Sequence<R>): Sequence<R> {
    return
flatMapIndexed(this, transform, Sequence<R>::iterator)
}
}
n/**
* Appends all elements yielded from results of
[transform] function being invoked on each element
* and its index in the original sequence, to the given
[destination].
* The
operation is _terminal_.
n
*^@SinceKotlin("1.4")
n^@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
n^@OverloadResolution
ByLambdaReturnType
n^@kotlin.jvm.JvmName("flatMapIndexedIterableTo")
n^@kotlin.internal.InlineOnly
npublic

```





```

K, MutableList<V>>> Sequence<T>.groupByTo(destination: M, keySelector: (T) -> K, valueTransform: (T) -> V):
M {
    for (element in this) {
        val key = keySelector(element)
        val list = destination.getOrPut(key) {
            ArrayList<V>()
        }
        list.add(valueTransform(element))
    }
    return destination
}

Creates a [Grouping] source from a sequence to be used later with one of group-and-fold operations using the specified [keySelector] function to extract a key from each element. The operation is _intermediate_ and _stateless_.

@sample samples.collections.Grouping.groupingByEachCount

public inline fun <T, K> Sequence<T>.groupBy(crossinline keySelector: (T) -> K): Grouping<T, K> {
    return object : Grouping<T, K> {
        override fun sourceIterator(): Iterator<T> = this@groupBy.iterator()
        override fun keyOf(element: T): K = keySelector(element)
    }
}

Returns a sequence containing the results of applying the given [transform] function to each element in the original sequence. The operation is _intermediate_ and _stateless_.

@sample samples.collections.Collections.Transformations.map

public fun <T, R> Sequence<T>.map(transform: (T) -> R): Sequence<R> {
    return TransformingSequence(this, transform)
}

Returns a sequence containing the results of applying the given [transform] function to each element and its index in the original sequence.

@param [transform] function that takes the index of an element and the element itself and returns the result of the transform applied to the element. The operation is _intermediate_ and _stateless_.

public fun <T, R> Sequence<T>.mapIndexed(transform: (index: Int, T) -> R): Sequence<R> {
    return TransformingIndexedSequence(this, transform)
}

Returns a sequence containing only the non-null results of applying the given [transform] function to each element and its index in the original sequence.

@param [transform] function that takes the index of an element and the element itself and returns the result of the transform applied to the element. The operation is _intermediate_ and _stateless_.

public fun <T, R : Any> Sequence<T>.mapIndexedNotNull(transform: (index: Int, T) -> R?): Sequence<R> {
    return TransformingIndexedSequence(this, transform).filterNotNull()
}

Applies the given [transform] function to each element and its index in the original sequence and appends only the non-null results to the given [destination].

@param [transform] function that takes the index of an element and the element itself and returns the result of the transform applied to the element. The operation is _terminal_.

public inline fun <T, R : Any, C : MutableCollection<in R>> Sequence<T>.mapIndexedNotNullTo(destination: C, transform: (index: Int, T) -> R?): C {
    forEachIndexed { index, element -> transform(index, element)?.let { destination.add(it) } }
    return destination
}

Applies the given [transform] function to each element and its index in the original sequence and appends the results to the given [destination].

@param [transform] function that takes the index of an element and the element itself and returns the result of the transform applied to the element. The operation is _terminal_.

public inline fun <T, R, C : MutableCollection<in R>> Sequence<T>.mapIndexedTo(destination: C, transform: (index: Int, T) -> R): C {
    var index = 0
    for (item in this) {
        destination.add(transform(checkIndexOverflow(index++), item))
    }
    return destination
}

Returns a sequence containing only the non-null results of applying the given [transform] function to each element in the original sequence. The operation is _intermediate_ and _stateless_.

@sample samples.collections.Collections.Transformations.mapNotNull

public fun <T, R : Any> Sequence<T>.mapNotNull(transform: (T) -> R?): Sequence<R> {
    return TransformingSequence(this, transform).filterNotNull()
}

Applies the given [transform] function to each element in the original sequence and appends only the non-null results to the given [destination]. The operation is _terminal_.

public inline fun <T, R : Any, C : MutableCollection<in R>> Sequence<T>.mapNotNullTo(destination: C, transform: (T) -> R?): C {
    forEach { element -> transform(element)?.let { destination.add(it) } }
    return destination
}

Applies the given [transform] function to each element of the original sequence and appends the results to the given [destination]. The operation is _terminal_.

public inline fun <T, R, C : MutableCollection<in R>> Sequence<T>.mapTo(destination: C, transform: (T) -> R): C {
    for (item in this) {

```

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destination.add(transform(item))\n
    return destination\n}\n\n/**\n * Returns a sequence that wraps each element of the original sequence\n * into an [IndexedValue] containing the index of that element and the element itself.\n * \n * The operation is _intermediate_ and _stateless_.\n */\npublic fun <T> Sequence<T>.withIndex(): Sequence<IndexedValue<T>> {\n    return IndexingSequence(this)\n}\n\n/**\n * Returns a sequence containing only distinct elements from the given sequence.\n * \n * Among equal elements of the given sequence, only the first one will be present in the resulting sequence.\n * \n * The elements in the resulting sequence are in the same order as they were in the source sequence.\n * \n * The operation is _intermediate_ and _stateful_.\n * \n * @sample\n * samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun <T> Sequence<T>.distinct(): Sequence<T> {\n    return this.distinctBy { it }\n}\n\n/**\n * Returns a sequence containing only elements from the given sequence\n * having distinct keys returned by the given [selector] function.\n * \n * Among elements of the given sequence with equal keys, only the first one will be present in the resulting sequence.\n * \n * The elements in the resulting sequence are in the same order as they were in the source sequence.\n * \n * The operation is _intermediate_ and _stateful_.\n * \n * @sample\n * samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun <T, K> Sequence<T>.distinctBy(selector: (T) -> K): Sequence<T> {\n    return DistinctSequence(this, selector)\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given sequence.\n * \n * The returned set preserves the element iteration order of the original sequence.\n * \n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.toMutableSet(): MutableSet<T> {\n    val set = LinkedHashSet<T>()\n    for (item in this) set.add(item)\n    return set\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * The operation is _terminal_.\n * \n * @sample\n * samples.collections.Collections.Aggregates.all\n */\npublic inline fun <T> Sequence<T>.all(predicate: (T) -> Boolean): Boolean {\n    for (element in this) if (!predicate(element)) return false\n    return true\n}\n\n/**\n * Returns `true` if sequence has at least one element.\n * \n * The operation is _terminal_.\n * \n * @sample\n * samples.collections.Collections.Aggregates.any\n */\npublic fun <T> Sequence<T>.any(): Boolean {\n    return iterator().hasNext()\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * The operation is _terminal_.\n * \n * @sample\n * samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun <T> Sequence<T>.any(predicate: (T) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return true\n    return false\n}\n\n/**\n * Returns the number of elements in this sequence.\n * \n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.count(): Int {\n    var count = 0\n    for (element in this) checkCountOverflow(++count)\n    return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n * \n * The operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.count(predicate: (T) -> Boolean): Int {\n    var count = 0\n    for (element in this) if (predicate(element)) checkCountOverflow(++count)\n    return count\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the sequence is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * The operation is _terminal_.\n */\npublic inline fun <T, R> Sequence<T>.fold(initial: R, operation: (acc: R, T) -> R): R {\n    var accumulator = initial\n    for (element in this) accumulator = operation(accumulator, element)\n    return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original sequence.\n * \n * Returns the specified [initial] value if the sequence is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * The operation is _terminal_.\n */\npublic inline fun <T, R> Sequence<T>.foldIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): R {\n    var index = 0\n    var accumulator = initial\n    for (element in this) accumulator = operation(checkIndexOverflow(index++), accumulator, element)\n    return accumulator\n}\n\n/**\n * Performs the given [action] on each element.\n * \n * The operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.forEach(action: (T) -> Unit): Unit {\n    for

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(element in this) action(element)\n\n/**\n * Performs the given [action] on each element, providing sequential
index with the element.\n * @param [action] function that takes the index of an element and the element itself\n *
and performs the action on the element.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T>
Sequence<T>.forEachIndexed(action: (index: Int, T) -> Unit): Unit {\n    var index = 0\n    for (item in this)
action(checkIndexOverflow(index++), item)\n}\n\n@Deprecated("Use maxOrNull instead.",
ReplaceWith("this.maxOrNull()"))\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5",
hiddenSince = "1.6")\n@SinceKotlin("1.1")\npublic fun Sequence<Double>.max(): Double? {\n    return
maxOrNull()\n}\n\n@Deprecated("Use maxOrNull instead.",
ReplaceWith("this.maxOrNull()"))\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5",
hiddenSince = "1.6")\n@SinceKotlin("1.1")\npublic fun Sequence<Float>.max(): Float? {\n
    return maxOrNull()\n}\n\n@Deprecated("Use maxOrNull instead.",
ReplaceWith("this.maxOrNull()"))\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5",
hiddenSince = "1.6")\npublic fun <T : Comparable<T>> Sequence<T>.max(): T? {\n    return
maxOrNull()\n}\n\n@Deprecated("Use maxByOrNull instead.",
ReplaceWith("this.maxByOrNull(selector)"))\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince =
"1.5", hiddenSince = "1.6")\npublic inline fun <T, R : Comparable<R>> Sequence<T>.maxBy(selector: (T) ->
R): T? {\n    return maxByOrNull(selector)\n}\n\n/**\n * Returns the first element yielding the largest value of the
given function or `null` if there are no elements.\n *\n * The operation is _terminal_.\n *\n * @sample
samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin("1.4")\npublic inline fun <T, R :
Comparable<R>> Sequence<T>.maxByOrNull(selector: (T) -> R): T? {\n    val iterator = iterator()\n    if
(!iterator.hasNext()) return
null\n    var maxElem = iterator.next()\n    if (!iterator.hasNext()) return maxElem\n    var maxValue =
selector(maxElem)\n    do {\n        val e = iterator.next()\n        val v = selector(e)\n        if (maxValue < v) {\n
            maxElem = e\n            maxValue = v\n        }\n    } while (iterator.hasNext())\n    return maxElem\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the
sequence.\n *\n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n *\n * @throws NoSuchElementException if the sequence is empty.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.maxOf(selector: (T) ->
Double): Double {\n    val iterator = iterator()\n    if (!iterator.hasNext()) throw NoSuchElementException()\n
    var maxValue = selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v = selector(iterator.next())\n
        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all
values produced by [selector] function\n * applied to each element in the sequence.\n *\n * If any of values
produced by [selector] function is `NaN`, the returned result is `NaN`.\n *\n * @throws NoSuchElementException
if the sequence is empty.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.maxOf(selector: (T) ->
Float): Float {\n    val iterator = iterator()\n    if (!iterator.hasNext()) throw NoSuchElementException()\n    var
maxValue = selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v = selector(iterator.next())\n
        maxValue = maxOf(maxValue,
v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector]
function\n * applied to each element in the sequence.\n *\n * @throws NoSuchElementException if the sequence is
empty.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>>
Sequence<T>.maxOf(selector: (T) -> R): R {\n    val iterator = iterator()\n    if (!iterator.hasNext()) throw
NoSuchElementException()\n    var maxValue = selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v
= selector(iterator.next())\n        if (maxValue < v) {\n            maxValue = v\n        }\n    }\n    return

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maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the sequence or `null` if there are no elements.\n
 * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n *\n * The operation is _terminal_.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.maxOrNull(selector:
(T) -> Double): Double? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var max\nValue =
selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v = selector(iterator.next())\n        max\nValue =
maxOf(maxValue, v)\n    }\n    return max\nValue\n}\n\n/**\n * Returns the largest value among all values produced
by [selector] function\n * applied to each element in the sequence or `null` if there are no elements.\n *\n * If any of
values produced by [selector] function is `NaN`, the returned result is `NaN`.\n *\n * The operation is _terminal_.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <T> Sequence<T>.maxOrNull(selector: (T) -> Float): Float? {\n    val iterator = iterator()\n    if
(!iterator.hasNext()) return null\n    var max\nValue = selector(iterator.next())\n    while (iterator.hasNext()) {\n
        val v = selector(iterator.next())\n        max\nValue = maxOf(maxValue, v)\n    }\n    return max\nValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the
sequence or `null` if there are no elements.\n *\n * The operation is _terminal_.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>>
Sequence<T>.maxOrNull(selector: (T) -> R): R? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return
null\n    var max\nValue = selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v = selector(iterator.next())\n        if (max\nValue < v) {\n            max\nValue =
v\n        }\n    }\n    return max\nValue\n}\n\n/**\n * Returns the largest value according to the provided
[comparator]\n * among all values produced by [selector] function applied to each element in the sequence.\n *\n * @throws NoSuchElementException if the sequence is empty.\n *\n * The operation is _terminal_.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R>
Sequence<T>.maxOfWith(comparator: Comparator<in R>, selector: (T) -> R): R {\n    val iterator = iterator()\n    if
(!iterator.hasNext()) throw NoSuchElementException()\n    var max\nValue = selector(iterator.next())\n    while
(iterator.hasNext()) {\n        val v = selector(iterator.next())\n        if (comparator.compare(max\nValue, v) < 0) {\n
            max\nValue = v\n        }\n    }\n    return max\nValue\n}\n\n/**\n * Returns the largest value according to the
provided [comparator]\n * among all values produced by [selector] function applied to each element in the sequence
or `null` if there are no elements.\n *\n * The operation is _terminal_.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R>
Sequence<T>.maxOfWithOrNull(comparator: Comparator<in R>, selector: (T) -> R): R? {\n    val iterator =
iterator()\n    if (!iterator.hasNext()) return null\n    var max\nValue = selector(iterator.next())\n    while
(iterator.hasNext()) {\n        val v = selector(iterator.next())\n        if (comparator.compare(max\nValue, v) < 0) {\n
            max\nValue = v\n        }\n    }\n    return max\nValue\n}\n\n/**\n * Returns the largest element or `null` if there are no
elements.\n *\n * If any of elements is `NaN`\n * returns `NaN`.\n *\n * The operation is _terminal_.\n
*\n@SinceKotlin("1.4")\npublic fun
Sequence<Double>.maxOrNull(): Double? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n
    var max = iterator.next()\n    while (iterator.hasNext()) {\n        val e = iterator.next()\n        max = maxOf(max, e)\n
    }\n    return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n *\n * If any of
elements is `NaN` returns `NaN`.\n *\n * The operation is _terminal_.\n
*\n@SinceKotlin("1.4")\npublic fun
Sequence<Float>.maxOrNull(): Float? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var
max = iterator.next()\n    while (iterator.hasNext()) {\n        val e = iterator.next()\n        max = maxOf(max, e)\n
    }\n}

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} \n return max \n } \n \n /** \n * Returns the largest element or `null` if there are no elements. \n * \n * The operation is
_terminal_. \n * \n * @SinceKotlin("1.4") \n public fun <T> : Comparable<T>>
Sequence<T>.maxOrNull(): T? { \n val iterator = iterator() \n if (!iterator.hasNext()) return null \n var max =
iterator.next() \n while (iterator.hasNext()) { \n val e = iterator.next() \n if (max < e) max = e \n } \n
return max \n } \n \n @Deprecated("Use maxWithOrNull instead."),
ReplaceWith("this.maxWithOrNull(comparator)") \n \n @DeprecatedSinceKotlin(warningSince = "1.4", errorSince
= "1.5", hiddenSince = "1.6") \n public fun <T> Sequence<T>.maxWith(comparator: Comparator<in T>): T? { \n
return maxWithOrNull(comparator) \n } \n \n /** \n * Returns the first element having the largest value according to the
provided [comparator] or `null` if there are no elements. \n * \n * The operation is _terminal_. \n
* \n * @SinceKotlin("1.4") \n public fun <T> Sequence<T>.maxWithOrNull(comparator: Comparator<in T>): T? { \n
val iterator = iterator() \n if (!iterator.hasNext()) return null \n var max = iterator.next() \n while
(iterator.hasNext()) { \n val e = iterator.next() \n
if (comparator.compare(max, e) < 0) max = e \n } \n return max \n } \n \n @Deprecated("Use minOrNull
instead."), ReplaceWith("this.minOrNull()") \n \n @DeprecatedSinceKotlin(warningSince = "1.4", errorSince =
"1.5", hiddenSince = "1.6") \n @SinceKotlin("1.1") \n public fun Sequence<Double>.min(): Double? { \n return
minOrNull() \n } \n \n @Deprecated("Use minOrNull instead."),
ReplaceWith("this.minOrNull()") \n \n @DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5",
hiddenSince = "1.6") \n @SinceKotlin("1.1") \n public fun Sequence<Float>.min(): Float? { \n return
minOrNull() \n } \n \n @Deprecated("Use minOrNull instead."),
ReplaceWith("this.minOrNull()") \n \n @DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5",
hiddenSince = "1.6") \n public fun <T> : Comparable<T>> Sequence<T>.min(): T? { \n return
minOrNull() \n } \n \n @Deprecated("Use minByOrNull instead."),
ReplaceWith("this.minByOrNull(selector)") \n \n @DeprecatedSinceKotlin(warningSince
= "1.4", errorSince = "1.5", hiddenSince = "1.6") \n public inline fun <T, R : Comparable<R>>
Sequence<T>.minBy(selector: (T) -> R): T? { \n return minByOrNull(selector) \n } \n \n /** \n * Returns the first
element yielding the smallest value of the given function or `null` if there are no elements. \n * \n * The operation is
_terminal_. \n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull \n
* \n * @SinceKotlin("1.4") \n public inline fun <T, R : Comparable<R>> Sequence<T>.minByOrNull(selector: (T) ->
R): T? { \n val iterator = iterator() \n if (!iterator.hasNext()) return null \n var minElem = iterator.next() \n
if (!iterator.hasNext()) return minElem \n var minValue = selector(minElem) \n do { \n val e = iterator.next() \n
val v = selector(e) \n if (minValue > v) { \n minElem = e \n minValue = v \n } \n } while
(iterator.hasNext()) \n return minElem \n } \n \n /** \n * Returns the smallest value among all values
produced by [selector] function \n * applied to each element in the sequence. \n * \n * If any of values produced by
[selector] function is `NaN`, the returned result is `NaN`. \n * \n * @throws NoSuchElementException if the
sequence is empty. \n * \n * The operation is _terminal_. \n
* \n * @SinceKotlin("1.4") \n @OptIn(kotlin.experimental.ExperimentalTypeInference::class) \n @OverloadResolution
ByLambdaReturnType \n @kotlin.internal.InlineOnly \n public inline fun <T> Sequence<T>.minOf(selector: (T) ->
Double): Double { \n val iterator = iterator() \n if (!iterator.hasNext()) throw NoSuchElementException() \n var
minValue = selector(iterator.next()) \n while (iterator.hasNext()) { \n val v = selector(iterator.next()) \n
minValue = minOf(minValue, v) \n } \n return minValue \n } \n \n /** \n * Returns the smallest value among all
values produced by [selector] function \n * applied to each element in the sequence. \n * \n * If any of values
produced by [selector] function is `NaN`, the
returned result is `NaN`. \n * \n * @throws NoSuchElementException if the sequence is empty. \n * \n * The
operation is _terminal_. \n
* \n * @SinceKotlin("1.4") \n @OptIn(kotlin.experimental.ExperimentalTypeInference::class) \n @OverloadResolution
ByLambdaReturnType \n @kotlin.internal.InlineOnly \n public inline fun <T> Sequence<T>.minOf(selector: (T) ->
Float): Float { \n val iterator = iterator() \n if (!iterator.hasNext()) throw NoSuchElementException() \n var
minValue = selector(iterator.next()) \n while (iterator.hasNext()) { \n val v = selector(iterator.next()) \n

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    minValue = v\n    }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest element or `null` if there are
no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n * \n * The operation is _terminal_.\n
*/\n\n@SinceKotlin("1.4")\npublic fun Sequence<Double>.minOrNull(): Double? {\n    val iterator = iterator()\n    if
(!iterator.hasNext()) return null\n    var min = iterator.next()\n    while (iterator.hasNext()) {\n        val e =
iterator.next()\n        min = minOf(min, e)\n    }\n    return min\n}\n\n/**\n * Returns the smallest
element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n * \n * The operation
is _terminal_.\n * \n * @SinceKotlin("1.4")\npublic fun Sequence<Float>.minOrNull(): Float? {\n    val iterator =
iterator()\n    if (!iterator.hasNext()) return null\n    var min = iterator.next()\n    while (iterator.hasNext()) {\n
        val e = iterator.next()\n        min = minOf(min, e)\n    }\n    return min\n}\n\n/**\n * Returns the smallest element or
`null` if there are no elements.\n * \n * The operation is _terminal_.\n * \n * @SinceKotlin("1.4")\npublic fun <T
: Comparable<T>> Sequence<T>.minOrNull(): T? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return
null\n    var min = iterator.next()\n    while (iterator.hasNext()) {\n        val e = iterator.next()\n        if (min > e) min
= e\n    }\n    return min\n}\n\n@Deprecated("Use minWithOrNull instead.")\nReplaceWith("this.minWithOrNull(comparator)")\n@DeprecatedSinceKotlin(warningSince
= "1.4", errorSince = "1.5", hiddenSince = "1.6")\npublic fun <T> Sequence<T>.minWith(comparator:
Comparator<in T>): T? {\n    return minWithOrNull(comparator)\n}\n\n/**\n * Returns the first element having the
smallest value according to the provided [comparator] or `null` if there are no elements.\n * \n * The operation is
_terminal_.\n * \n * @SinceKotlin("1.4")\npublic fun <T> Sequence<T>.minWithOrNull(comparator:
Comparator<in T>): T? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var min =
iterator.next()\n    while (iterator.hasNext()) {\n        val e = iterator.next()\n        if (comparator.compare(min, e) >
0) min = e\n    }\n    return min\n}\n\n/**\n * Returns `true` if the sequence has no elements.\n * \n * The operation is
_terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\n\npublic fun <T>
Sequence<T>.none(): Boolean {\n    return !iterator().hasNext()\n}\n\n/**\n * Returns `true` if no elements match
the
given [predicate].\n * \n * The operation is _terminal_.\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n */\n\npublic inline fun <T>
Sequence<T>.none(predicate: (T) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return
false\n    return true\n}\n\n/**\n * Returns a sequence which performs the given [action] on each element of the
original sequence as they pass through it.\n * \n * The operation is _intermediate_ and _stateless_.\n
*/\n\n@SinceKotlin("1.1")\npublic fun <T> Sequence<T>.onEach(action: (T) -> Unit): Sequence<T> {\n    return
map {\n        action(it)\n        it\n    }\n}\n\n/**\n * Returns a sequence which performs the given [action] on each
element of the original sequence as they pass through it.\n * \n * @param [action] function that takes the index of an
element and the element itself\n * and performs the action on the element.\n * \n * The operation is _intermediate_
and _stateless_.\n * \n * @SinceKotlin("1.4")\npublic
fun <T> Sequence<T>.onEachIndexed(action: (index: Int, T) -> Unit): Sequence<T> {\n    return mapIndexed {\n
index, element ->\n        action(index, element)\n        element\n    }\n}\n\n/**\n * Accumulates value starting with
the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n *
\n * Throws an exception if this sequence is empty. If the sequence can be empty in an expected way,\n * please use
[reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes
current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * The operation is
_terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\n\npublic inline fun <S, T : S>
Sequence<T>.reduce(operation: (acc: S, T) -> S): S {\n    val iterator = this.iterator()\n    if (!iterator.hasNext())
throw UnsupportedOperationException("Empty sequence can't be reduced.")\n    var accumulator: S = iterator.next()\n    while (iterator.hasNext()) {\n        accumulator = operation(accumulator,
iterator.next())\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and
applying [operation] from left to right\n * to current accumulator value and each element with its index in the
original sequence.\n * \n * Throws an exception if this sequence is empty. If the sequence can be empty in an
expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n *

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element)\n        yield(accumulator)\n        }\n    }\n}\n\n/**\n * Returns a sequence containing successive
accumulation values generated by applying [operation] from left to right\n * to each element and current
accumulator value that starts with the first element of this sequence.\n * \n * Note that `acc` value passed to
[operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting sequence.\n
* \n
* @param [operation] function that takes current accumulator value and the element, and calculates the next
accumulator value.\n * \n * The operation is _intermediate_ and _stateless_.\n * \n * @sample
samples.collections.Collections.Aggregates.runningReduce\n
*/\n\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <S, T : S>
Sequence<T>.runningReduce(operation: (acc: S, T) -> S): Sequence<S> {\n    return sequence {\n        val iterator =
iterator()\n        if (iterator.hasNext()) {\n            var accumulator: S = iterator.next()\n            yield(accumulator)\n            while (iterator.hasNext()) {\n                accumulator = operation(accumulator, iterator.next())\n            }\n        }\n    }\n}\n\n/**\n * Returns a sequence containing successive accumulation
values generated by applying [operation] from left to right\n * to each element, its index in the original sequence and
current accumulator value that
starts with the first element of this sequence.\n * \n * Note that `acc` value passed to [operation] function should not
be mutated;\n * otherwise it would affect the previous value in resulting sequence.\n * \n * @param [operation]
function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the
next accumulator value.\n * \n * The operation is _intermediate_ and _stateless_.\n * \n * @sample
samples.collections.Collections.Aggregates.runningReduce\n
*/\n\n@SinceKotlin("1.4")\npublic fun <S, T : S>
Sequence<T>.runningReduceIndexed(operation: (index: Int, acc: S, T) -> S): Sequence<S> {\n    return sequence
{\n        val iterator = iterator()\n        if (iterator.hasNext()) {\n            var accumulator: S = iterator.next()\n            yield(accumulator)\n            var index = 1\n            while (iterator.hasNext()) {\n                accumulator =
operation(checkIndexOverflow(index++), accumulator, iterator.next())\n                yield(accumulator)\n            }\n        }\n    }\n}\n\n/**\n * Returns a sequence containing successive
accumulation values generated by applying [operation] from left to right\n * to each element and current
accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should
not be mutated;\n * otherwise it would affect the previous value in resulting sequence.\n * \n * The [initial] value should
also be immutable (or should not be mutated)\n * as it may be passed to [operation] function later because of
sequence's lazy nature.\n * \n * @param [operation] function that takes current accumulator value and an element,
and calculates the next accumulator value.\n * \n * The operation is _intermediate_ and _stateless_.\n * \n *
@sample samples.collections.Collections.Aggregates.scan\n
*/\n\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T, R>
Sequence<T>.scan(initial: R, operation: (acc: R, T) ->
R): Sequence<R> {\n    return runningFold(initial, operation)\n}\n\n/**\n * Returns a sequence containing
successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in
the original sequence and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value
passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting
sequence.\n * \n * The [initial] value should also be immutable (or should not be mutated)\n * as it may be passed to
[operation] function later because of sequence's lazy nature.\n * \n * @param [operation] function that takes the
index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator
value.\n * \n * The operation is _intermediate_ and _stateless_.\n * \n * @sample
samples.collections.Collections.Aggregates.scan\n
*/\n\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic
fun <T, R> Sequence<T>.scanIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): Sequence<R> {\n    return
runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the sequence.\n * \n * The operation is _terminal_.\n * \n * @Deprecated("Use sumOf
instead.", ReplaceWith("this.sumOf(selector)"))\n * \n * @DeprecatedSinceKotlin(warningSince = "1.5")\n * \n * public inline

```

```

fun <T> Sequence<T>.sumBy(selector: (T) -> Int): Int {
    var sum: Int = 0
    for (element in this) {
        sum += selector(element)
    }
    return sum
}

```

\* Returns the sum of all values produced by [selector] function applied to each element in the sequence.

\* The operation is `_terminal_`.

`@Deprecated("Use sumOf instead.")`, `ReplaceWith("this.sumOf(selector)")`

`@DeprecatedSinceKotlin(warningSince = "1.5")`

```

public inline fun <T> Sequence<T>.sumByDouble(selector: (T) -> Double): Double {
    var sum: Double = 0.0
    for (element in this) {
        sum += selector(element)
    }
    return sum
}

```

\* Returns the sum of all values produced by [selector] function applied to each element in the sequence.

\* The operation is `_terminal_`.

`@SinceKotlin("1.4")`, `@OptIn(kotlin.experimental.ExperimentalTypeInference::class)`, `@OverloadResolutionByLambdaReturnType`, `@kotlin.jvm.JvmName("sumOfDouble")`, `@kotlin.internal.InlineOnly`

```

public inline fun <T> Sequence<T>.sumOf(selector: (T) -> Double): Double {
    var sum: Double = 0.toDouble()
    for (element in this) {
        sum += selector(element)
    }
    return sum
}

```

\* Returns the sum of all values produced by [selector] function applied to each element in the sequence.

\* The operation is `_terminal_`.

`@SinceKotlin("1.4")`, `@OptIn(kotlin.experimental.ExperimentalTypeInference::class)`, `@OverloadResolutionByLambdaReturnType`, `@kotlin.jvm.JvmName("sumOfInt")`, `@kotlin.internal.InlineOnly`, `public inline fun`

```

inline fun <T> Sequence<T>.sumOf(selector: (T) -> Int): Int {
    var sum: Int = 0.toInt()
    for (element in this) {
        sum += selector(element)
    }
    return sum
}

```

\* Returns the sum of all values produced by [selector] function applied to each element in the sequence.

\* The operation is `_terminal_`.

`@SinceKotlin("1.4")`, `@OptIn(kotlin.experimental.ExperimentalTypeInference::class)`, `@OverloadResolutionByLambdaReturnType`, `@kotlin.jvm.JvmName("sumOfLong")`, `@kotlin.internal.InlineOnly`, `public inline fun`

```

inline fun <T> Sequence<T>.sumOf(selector: (T) -> Long): Long {
    var sum: Long = 0.toLong()
    for (element in this) {
        sum += selector(element)
    }
    return sum
}

```

\* Returns the sum of all values produced by [selector] function applied to each element in the sequence.

\* The operation is `_terminal_`.

`@SinceKotlin("1.5")`, `@OptIn(kotlin.experimental.ExperimentalTypeInference::class)`, `@OverloadResolutionByLambdaReturnType`, `@kotlin.jvm.JvmName("sumOfUInt")`, `@WasExperimental(ExperimentalUnsignedTypes::class)`, `@kotlin.internal.InlineOnly`, `public inline fun`

```

inline fun <T> Sequence<T>.sumOf(selector: (T) -> UInt): UInt {
    var sum: UInt = 0.toUInt()
    for (element in this) {
        sum += selector(element)
    }
    return sum
}

```

\* Returns the sum of all values produced by [selector] function applied to each element in the sequence.

\* The operation is `_terminal_`.

`@SinceKotlin("1.5")`, `@OptIn(kotlin.experimental.ExperimentalTypeInference::class)`, `@OverloadResolutionByLambdaReturnType`, `@kotlin.jvm.JvmName("sumOfULong")`, `@WasExperimental(ExperimentalUnsignedTypes::class)`, `@kotlin.internal.InlineOnly`, `public inline fun`

```

inline fun <T> Sequence<T>.sumOf(selector: (T) -> ULong): ULong {
    var sum: ULong = 0.toULong()
    for (element in this) {
        sum += selector(element)
    }
    return sum
}

```

\* Returns an original collection containing all the non-`null` elements, throwing an `[IllegalArgumentException]` if there are any `null` elements.

\* The operation is `_intermediate_` and `_stateless_`.

`public fun` `<T : Any> Sequence<T?>.requireNonNulls(): Sequence<T>` {

```

    return map { it?.throw IllegalArgumentException("null element found in $this.") }
}

```

\* Splits this sequence into a sequence of lists each not exceeding the given [size].

\* The last list in the resulting sequence may have fewer elements than the given [size].

\* @param size the number of elements to take in each list, must be positive and can be greater than the number of elements in this sequence.

\* The operation is `_intermediate_` and `_stateful_`.

\* @sample samples.collections.Collections.Transformations.chunked

`@SinceKotlin("1.2")`, `public fun` `<T> Sequence<T>.chunked(size: Int): Sequence<List<T>>` {

```

    return windowed(size, size, partialWindows = true)
}

```

\* Splits this sequence into several lists each not exceeding the given [size].

and applies the given [transform] function to an each.

\* @return sequence of results of the [transform] applied to an each list.

\* Note that the list passed to the [transform] function is ephemeral and is valid only inside that function.

\* You should not store it or allow it to escape in some way, unless you made a snapshot of it.

\* The last list may have fewer elements than the given [size].

\* @param size the number of elements to

take in each list, must be positive and can be greater than the number of elements in this sequence.

```

 * The operation is _intermediate_ and _stateful_.
 * @sample samples.text.Strings.chunkedTransform
 * Since Kotlin("1.2")
 public fun <T, R> Sequence<T>.chunked(size: Int, transform: (List<T>) -> R):
 Sequence<R> {
     return windowed(size, size, partialWindows = true, transform = transform)
 }
 
```

Returns a sequence containing all elements of the original sequence without the first occurrence of the given [element].

```

 * The operation is _intermediate_ and _stateless_.
 * public operator fun <T> Sequence<T>.minus(element:
 T): Sequence<T> {
     return object: Sequence<T> {
         override fun iterator(): Iterator<T> {
             var removed = false
             return this@minus.filter { if (!removed && it == element) { removed = true; false } else true }.iterator()
         }
     }
 }
 
```

Returns a sequence containing all elements of original sequence except the elements contained in the given [elements] array.

Note that the source sequence and the array being subtracted are iterated only when an `iterator` is requested from the resulting sequence. Changing any of them between successive calls to `iterator` may affect the result.

Before Kotlin 1.6, the [elements] array may have been converted to a [HashSet] to speed up the operation, thus the elements were required to have a correct and stable implementation of `hashCode()` that didn't change between successive invocations.

On JVM, you can enable this behavior back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.

```

 * The operation is _intermediate_ and _stateful_.
 * public operator fun <T> Sequence<T>.minus(elements: Array<out T>): Sequence<T> {
     if (elements.isEmpty()) return this
     return object: Sequence<T> {
         override fun iterator(): Iterator<T> {
             val other = elements.convertToSetForSetOperation()
             return this@minus.filterNot { it in other }.iterator()
         }
     }
 }
 
```

Returns a sequence containing all elements of original sequence except the elements contained in the given [elements] collection.

Note that the source sequence and the collection being subtracted are iterated only when an `iterator` is requested from the resulting sequence. Changing any of them between successive calls to `iterator` may affect the result.

Before Kotlin 1.6, the [elements] collection may have been converted to a [HashSet] to speed up the operation, thus the elements were required to have a correct and stable implementation of `hashCode()` that didn't change between successive invocations.

On JVM, you can enable this behavior back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.

```

 * The operation is _intermediate_ and _stateful_.
 * public operator fun <T> Sequence<T>.minus(elements: Iterable<T>): Sequence<T> {
     return object: Sequence<T> {
         override fun iterator(): Iterator<T> {
             val other = elements.convertToSetForSetOperation()
             if (other.isEmpty()) return this@minus.iterator()
             else return this@minus.filterNot { it in other }.iterator()
         }
     }
 }
 
```

Returns a sequence containing all elements of original sequence except the elements contained in the given [elements] sequence.

Note that the source sequence and the sequence being subtracted are iterated only when an `iterator` is requested from the resulting sequence. Changing any of them between successive calls to `iterator` may affect the result.

The operation is `_intermediate_` for this sequence and `_terminal_` and `_stateful_` for the [elements] sequence.

Before Kotlin 1.6, the [elements] sequence may have been converted to a [HashSet] to speed up the operation, thus the elements were required to have a correct and stable implementation of `hashCode()` that didn't change between successive invocations.

On JVM, you can enable this behavior back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.

```

 * public operator fun <T>
 Sequence<T>.minus(elements: Sequence<T>): Sequence<T> {
     return object: Sequence<T> {
         override fun iterator(): Iterator<T> {
             val other = elements.convertToSetForSetOperation()
             if (other.isEmpty()) return this@minus.iterator()
             else return this@minus.filterNot { it in other }.iterator()
         }
     }
 }
 
```

Returns a sequence containing all elements of the original sequence without the first occurrence of the given [element].

The operation is `_intermediate_` and `_stateless_`.

```

 * @kotlin.internal.InlineOnly
 * public inline fun <T> Sequence<T>.minusElement(element: T):
 Sequence<T> {
     return minus(element)
 }
 
```

Splits the original sequence into pair of lists, where `*first*` list contains elements for which [predicate] yielded `true`, while `*second*` list contains elements for

which [predicate] yielded `false`.\n \* \n \* The operation is `_terminal_`.\n \* \n \* @sample  
samples.collections.Sequences.Transformations.partition\n \* \n\npublic inline fun <T>  
Sequence<T>.partition(predicate: (T) -> Boolean): Pair<List<T>, List<T>> {\n val first = ArrayList<T>()\n val  
second = ArrayList<T>()\n  
for (element in this) {\n if (predicate(element)) {\n first.add(element)\n } else {\n  
second.add(element)\n } \n } \n return Pair(first, second)\n}\n\n/\*\*\n \* Returns a sequence containing all  
elements of the original sequence and then the given [element].\n \* \n \* The operation is `_intermediate_` and  
`_stateless_`.\n \* \n\npublic operator fun <T> Sequence<T>.plus(element: T): Sequence<T> {\n return  
sequenceOf(this, sequenceOf(element)).flatten()\n}\n\n/\*\*\n \* Returns a sequence containing all elements of  
original sequence and then all elements of the given [elements] array.\n \* \n \* Note that the source sequence and the  
array being added are iterated only when an `iterator` is requested from\n \* the resulting sequence. Changing any of  
them between successive calls to `iterator` may affect the result.\n \* \n \* The operation is `_intermediate_` and  
`_stateless_`.\n \* \n\npublic operator fun <T> Sequence<T>.plus(elements: Array<out T>): Sequence<T>  
{\n return this.plus(elements.asList())\n}\n\n/\*\*\n \* Returns a sequence containing all elements of original  
sequence and then all elements of the given [elements] collection.\n \* \n \* Note that the source sequence and the  
collection being added are iterated only when an `iterator` is requested from\n \* the resulting sequence. Changing  
any of them between successive calls to `iterator` may affect the result.\n \* \n \* The operation is `_intermediate_` and  
`_stateless_`.\n \* \n\npublic operator fun <T> Sequence<T>.plus(elements: Iterable<T>): Sequence<T> {\n return  
sequenceOf(this, elements.asSequence()).flatten()\n}\n\n/\*\*\n \* Returns a sequence containing all elements of  
original sequence and then all elements of the given [elements] sequence.\n \* \n \* Note that the source sequence and  
the sequence being added are iterated only when an `iterator` is requested from\n \* the resulting sequence. Changing  
any of them between successive calls to `iterator` may affect the result.\n \* \n\n \* The operation is `_intermediate_` and `_stateless_`.\n \* \n\npublic operator fun <T> Sequence<T>.plus(elements:  
Sequence<T>): Sequence<T> {\n return sequenceOf(this, elements).flatten()\n}\n\n/\*\*\n \* Returns a sequence  
containing all elements of the original sequence and then the given [element].\n \* \n \* The operation is  
`_intermediate_` and `_stateless_`.\n \* \n\n@kotlin.internal.InlineOnly\npublic inline fun <T>  
Sequence<T>.plusElement(element: T): Sequence<T> {\n return plus(element)\n}\n\n/\*\*\n \* Returns a sequence  
of snapshots of the window of the given [size]\n \* sliding along this sequence with the given [step], where each  
snapshot is a list.\n \* \n \* Several last lists may have fewer elements than the given [size].\n \* \n \* Both [size] and  
[step] must be positive and can be greater than the number of elements in this sequence.\n \* \n \* @param size the  
number of elements to take in each window\n \* @param step the number of elements to move the window forward  
by on an each step, by default  
1\n \* @param partialWindows controls whether or not to keep partial windows in the end if any,\n \* by default  
`false` which means partial windows won't be preserved\n \* \n \* @sample  
samples.collections.Sequences.Transformations.takeWindows\n \* \n\n@SinceKotlin("1.2")\npublic fun <T>  
Sequence<T>.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false): Sequence<List<T>> {\n return  
windowedSequence(size, step, partialWindows, reuseBuffer = false)\n}\n\n/\*\*\n \* Returns a sequence of results of  
applying the given [transform] function to\n \* an each list representing a view over the window of the given [size]\n \* sliding along this sequence with the given [step].\n \* \n \* Note that the list passed to the [transform] function is  
ephemeral and is valid only inside that function.\n \* You should not store it or allow it to escape in some way,  
unless you made a snapshot of it.\n \* Several last lists may have fewer elements than the given [size].\n \* \n \* Both  
[size] and [step]  
must be positive and can be greater than the number of elements in this sequence.\n \* @param size the number of  
elements to take in each window\n \* @param step the number of elements to move the window forward by on an  
each step, by default 1\n \* @param partialWindows controls whether or not to keep partial windows in the end if  
any,\n \* by default `false` which means partial windows won't be preserved\n \* \n \* @sample  
samples.collections.Sequences.Transformations.averageWindows\n \* \n\n@SinceKotlin("1.2")\npublic fun <T, R>  
Sequence<T>.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false, transform: (List<T>) -> R):

```

Sequence<R> {\n  return windowedSequence(size, step, partialWindows, reuseBuffer =
true).map(transform)\n}\n\n/**\n * Returns a sequence of values built from the elements of `this` sequence and the
[other] sequence with the same index.\n * The resulting sequence ends as soon as the shortest input sequence ends.\n
*\n * The operation is _intermediate_ and
_stateless_.\n * \n * @sample samples.collections.Sequences.Transformations.zip\n */\npublic infix fun <T, R>
Sequence<T>.zip(other: Sequence<R>): Sequence<Pair<T, R>> {\n  return MergingSequence(this, other) { t1, t2 -
> t1 to t2 }\n}\n\n/**\n * Returns a sequence of values built from the elements of `this` sequence and the [other]
sequence with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The
resulting sequence ends as soon as the shortest input sequence ends.\n * \n * The operation is _intermediate_ and
_stateless_.\n * \n * @sample samples.collections.Sequences.Transformations.zipWithTransform\n */\npublic fun
<T, R, V> Sequence<T>.zip(other: Sequence<R>, transform: (a: T, b: R) -> V): Sequence<V> {\n  return
MergingSequence(this, other, transform)\n}\n\n/**\n * Returns a sequence of pairs of each two adjacent elements in
this sequence.\n * \n * The returned sequence is empty if this sequence contains less than two elements.\n * \n
* The operation is _intermediate_ and _stateless_.\n * \n * @sample
samples.collections.Collections.Transformations.zipWithNext\n */\n@SinceKotlin("1.2")\npublic fun <T>
Sequence<T>.zipWithNext(): Sequence<Pair<T, T>> {\n  return zipWithNext { a, b -> a to b }\n}\n\n/**\n * Returns a sequence containing the results of applying the given [transform] function\n * to an each pair of two
adjacent elements in this sequence.\n * \n * The returned sequence is empty if this sequence contains less than two
elements.\n * \n * The operation is _intermediate_ and _stateless_.\n * \n * @sample
samples.collections.Collections.Transformations.zipWithNextToFindDeltas\n */\n@SinceKotlin("1.2")\npublic
fun <T, R> Sequence<T>.zipWithNext(transform: (a: T, b: T) -> R): Sequence<R> {\n  return sequence result@\n
{\n  val iterator = iterator()\n  if (!iterator.hasNext()) return @result\n  var current = iterator.next()\n
while (iterator.hasNext()) {\n  val next = iterator.next()\n
yield(transform(current, next))\n  current = next\n  }\n }\n}\n\n/**\n * Appends the string from
all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the
collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n
* elements will be appended, followed by the [truncated] string (which defaults to `"...`).\n * \n * The operation is
_terminal_.\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <T, A :
Appendable> Sequence<T>.joinTo(buffer: A, separator: CharSequence = ``, ``, prefix: CharSequence = ``, postfix:
CharSequence = ``, limit: Int = -1, truncated: CharSequence = `"...`, transform: ((T) -> CharSequence)? = null): A
{\n  buffer.append(prefix)\n  var count = 0\n  for (element in this) {\n  if (++count > 1)
buffer.append(separator)\n  if (limit < 0 || count <= limit)
{\n  buffer.appendElement(element, transform)\n  } else break\n  }\n  if (limit >= 0 && count > limit)
buffer.append(truncated)\n  buffer.append(postfix)\n  return buffer\n}\n\n/**\n * Creates a string from all the
elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection
could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will
be appended, followed by the [truncated] string (which defaults to `"...`).\n * \n * The operation is _terminal_.\n
* \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun <T>
Sequence<T>.joinToString(separator: CharSequence = ``, ``, prefix: CharSequence = ``, postfix: CharSequence =
``, limit: Int = -1, truncated: CharSequence = `"...`, transform: ((T) -> CharSequence)? = null): String {\n  return
joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n *
Creates an [Iterable] instance that wraps the original sequence returning its elements when being iterated.\n
*\n */\npublic fun <T> Sequence<T>.asIterable(): Iterable<T> {\n  return Iterable { this.iterator() }\n}\n\n/**\n *
Returns this sequence as a [Sequence].\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T>
Sequence<T>.asSequence(): Sequence<T> {\n  return this\n}\n\n/**\n * Returns an average value of elements in
the sequence.\n * \n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName("averageOfByte")\npublic fun
Sequence<Byte>.average(): Double {\n  var sum: Double = 0.0\n  var count: Int = 0\n  for (element in this) {\n
sum += element\n  checkCountOverflow(++count)\n  }\n  return if (count == 0) Double.NaN else sum /

```

```

count\n}\n\n/**\n * Returns an average value of elements in the sequence.\n *\n * The operation is _terminal_.\n *\n * \n@kotlin.jvm.JvmName("averageOfShort")\npublic fun Sequence<Short>.average():
Double {\n    var sum: Double = 0.0\n    var count: Int = 0\n    for (element in this) {\n        sum += element\n    }\n    checkCountOverflow(++count)\n    return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns
an average value of elements in the sequence.\n *\n * The operation is _terminal_.\n *\n * \n@kotlin.jvm.JvmName("averageOfInt")\npublic fun Sequence<Int>.average(): Double {\n    var sum: Double
= 0.0\n    var count: Int = 0\n    for (element in this) {\n        sum += element\n    }\n    checkCountOverflow(++count)\n    return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the
sequence.\n *\n * The operation is _terminal_.\n *\n * \n@kotlin.jvm.JvmName("averageOfLong")\npublic fun
Sequence<Long>.average(): Double {\n    var sum: Double = 0.0\n    var count: Int = 0\n    for (element in this) {\n        sum += element\n    }\n    checkCountOverflow(++count)\n    return if (count == 0) Double.NaN else
sum / count\n}\n\n/**\n * Returns an average value of elements in the sequence.\n *\n * The operation is
_terminal_.\n *\n * \n@kotlin.jvm.JvmName("averageOfFloat")\npublic fun Sequence<Float>.average(): Double {\n
var sum: Double = 0.0\n    var count: Int = 0\n    for (element in this) {\n        sum += element\n    }\n    checkCountOverflow(++count)\n    return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns
an average value of elements in the sequence.\n *\n * The operation is _terminal_.\n *\n * \n@kotlin.jvm.JvmName("averageOfDouble")\npublic fun Sequence<Double>.average(): Double {\n    var sum:
Double = 0.0\n    var count: Int = 0\n    for (element in this) {\n        sum += element\n    }\n    checkCountOverflow(++count)\n    return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns
the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n *\n * \n@kotlin.jvm.JvmName("sumOfByte")\npublic fun Sequence<Byte>.sum(): Int
{\n    var sum: Int = 0\n    for (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns
the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n *\n * \n@kotlin.jvm.JvmName("sumOfShort")\npublic fun Sequence<Short>.sum(): Int {\n    var sum: Int = 0\n    for
(element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the
sequence.\n *\n * The operation is _terminal_.\n *\n * \n@kotlin.jvm.JvmName("sumOfInt")\npublic fun
Sequence<Int>.sum(): Int {\n    var sum: Int = 0\n    for (element in this) {\n        sum += element\n    }\n    return
sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n *\n * \n@kotlin.jvm.JvmName("sumOfLong")\npublic fun Sequence<Long>.sum(): Long {\n    var sum: Long = 0L\n
for (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in
the sequence.\n *\n * The operation is _terminal_.\n *\n * \n@kotlin.jvm.JvmName("sumOfFloat")\npublic fun
Sequence<Float>.sum(): Float {\n    var sum: Float = 0.0f\n    for (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is
_terminal_.\n *\n * \n@kotlin.jvm.JvmName("sumOfDouble")\npublic fun Sequence<Double>.sum(): Double {\n    var sum:
Double = 0.0\n    for (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n"/**\n * Copyright 2010-
2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n *\n * \n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("SetsKt")\npackage
kotlin.collections\n\n/\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\nimport
kotlin.random.*\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns a set containing
all elements of the original set except the given [element].\n *\n * The returned set preserves the element iteration
order of the original set.\n *\n * \npublic operator fun <T> Set<T>.minus(element: T): Set<T> {\n    val result =
LinkedHashSet<T>(mapCapacity(size))\n    var removed = false\n    return this.filterTo(result) { if (!removed && it
== element) { removed = true; false } else true }\n}\n\n/**\n * Returns a set containing all elements of the original
set except the elements contained in the given [elements] array.\n *\n * The returned set preserves the element
iteration order of the original set.\n *\n * Before Kotlin 1.6, the [elements] array may have been converted to a

```

[HashSet] to speed up the operation, thus the elements were required to have a correct and stable implementation of `hashCode()` that didn't change between successive invocations.

\* On JVM, you can enable this behavior back with the system property

```
`kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.
```

```
public operator fun <T> Set<T>.minus(elements: Array<out T>): Set<T> {
```

```
    val result = LinkedHashSet<T>(this)
    result.removeAll(elements)
    return result
}
```

\* Returns a set containing all elements of the original set except the elements contained in the given [elements] collection.

\* The returned set preserves the element iteration order of the original set.

Before Kotlin 1.6, the [elements] collection may have been converted to a [HashSet] to speed up the operation, thus the elements were required to have a correct and stable implementation of `hashCode()` that didn't change between successive invocations.

On JVM, you can enable this behavior back with the system property ``kotlin.collections.convert_arg_to_set_in_removeAll`` set to ``true``.

```
public operator fun <T> Set<T>.minus(elements: Iterable<T>): Set<T> {
```

val other = elements.convertToSetForSetOperationWith(this)

if (other.isEmpty()) return this.toSet()

if (other is Set) return this.filterNotTo(LinkedHashSet<T>()) { it in other }

val result = LinkedHashSet<T>(this)

result.removeAll(other)

return result

\* Returns a set containing all elements of the original set except the elements contained in the given [elements] sequence.

\* The returned set preserves the element iteration order of the original set.

Before Kotlin 1.6, the [elements] sequence may have been converted to a [HashSet] to speed up the operation, thus the elements were required to have a correct and stable implementation of `hashCode()` that didn't change between successive invocations.

On JVM, you can enable this behavior back with the system property ``kotlin.collections.convert_arg_to_set_in_removeAll`` set to ``true``.

```
public operator fun <T> Set<T>.minus(elements: Sequence<T>):
```

```
Set<T> {
```

```
    val result = LinkedHashSet<T>(this)
    result.removeAll(elements)
    return result
}
```

\* Returns a set containing all elements of the original set except the given [element].

\* The returned set preserves the element iteration order of the original set.

```
@kotlin.internal.InlineOnly
public inline fun <T> Set<T>.minusElement(element: T): Set<T> {
```

return minus(element)

\* Returns a set containing all elements of the original set and then the given [element] if it isn't already in this set.

\* The returned set preserves the element iteration order of the original set.

```
public operator fun <T> Set<T>.plus(element: T):
```

```
Set<T> {
```

val result = LinkedHashSet<T>(mapCapacity(size + 1))

result.addAll(this)

result.add(element)

return result

\* Returns a set containing all elements of the original set and the given [elements] array, which aren't already in this set.

\* The returned set preserves

```
the element iteration order of the original set.
```

```
public operator fun <T> Set<T>.plus(elements: Array<out T>):
```

```
Set<T> {
```

```
    val result = LinkedHashSet<T>(mapCapacity(this.size + elements.size))
```

```
    result.addAll(this)
```

```
    result.addAll(elements)
```

```
    return result
```

```
}
```

\* Returns a set containing all elements of the original set and the given [elements] collection, which aren't already in this set.

\* The returned set preserves the element iteration order of the original set.

```
public operator fun <T> Set<T>.plus(elements: Iterable<T>): Set<T> {
```

```
    val result = LinkedHashSet<T>(mapCapacity(elements.collectionSizeOrNull()?.let { this.size + it } ?: this.size * 2))
```

```
    result.addAll(this)
```

```
    result.addAll(elements)
```

```
    return result
```

```
}
```

\* Returns a set containing all elements of the original set and the given [elements] sequence, which aren't already in this set.

\* The returned set preserves the element iteration order of the original set.

```
public operator fun <T> Set<T>.plus(elements: Sequence<T>): Set<T> {
```

```
    val result =
```

```
    LinkedHashSet<T>(mapCapacity(this.size * 2))
```

```
    result.addAll(this)
```

```
    result.addAll(elements)
```

```
    return result
```

```
}
```

\* Returns a set containing all elements of the original set and then the given [element] if it isn't already in this set.

\* The returned set preserves the element iteration order of the original set.

```
@kotlin.internal.InlineOnly
public inline fun <T> Set<T>.plusElement(element: T): Set<T> {
```

```
    return plus(element)
}
```

```
"/>**
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 * Use of this source code is governed by the Apache 2.0 license that can be found in the
 * license/LICENSE.txt file.
 */
@file:kotlin.jvm.JvmMultifileClass
@file:kotlin.jvm.JvmName("StringsKt")
package
```

kotlin.text\n\n/\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:  
<https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\n/\n\nimport>  
kotlin.random.\*\n\n/\*\*\n \* Returns a character at the given [index] or throws an [IndexOutOfBoundsException] if  
the [index] is out of bounds of this char sequence.\n \* \n \* @sample  
samples.collections.Collections.Elements.elementAt\n \* \n\npublic expect fun CharSequence.elementAt(index: Int):  
Char\n\n/\*\*\n \* Returns a character at the given [index] or the result of calling the [defaultValue] function if the  
[index] is out of bounds of this char sequence.\n \* \n \* @sample  
samples.collections.Collections.Elements.elementAtOrElse\n \* \n\n@kotlin.internal.InlineOnly\n\npublic inline fun  
CharSequence.elementAtOrElse(index: Int, defaultValue: (Int) -> Char): Char {\n return if (index >= 0 && index  
<= lastIndex) get(index) else defaultValue(index)\n}\n\n/\*\*\n \* Returns a character at the given [index] or `null` if  
the [index] is out of bounds of this char sequence.\n \* \n \* @sample  
samples.collections.Collections.Elements.elementAtOrNull\n \* \n\n@kotlin.internal.InlineOnly\n\npublic  
inline fun CharSequence.elementAtOrNull(index: Int): Char? {\n return this.getOrNull(index)\n}\n\n/\*\*\n \*  
Returns the first character matching the given [predicate], or `null` if no such character was found.\n \* \n \* @sample  
samples.collections.Collections.Elements.find\n \* \n\n@kotlin.internal.InlineOnly\n\npublic inline fun  
CharSequence.find(predicate: (Char) -> Boolean): Char? {\n return firstOrNull(predicate)\n}\n\n/\*\*\n \* Returns  
the last character matching the given [predicate], or `null` if no such character was found.\n \* \n \* @sample  
samples.collections.Collections.Elements.find\n \* \n\n@kotlin.internal.InlineOnly\n\npublic inline fun  
CharSequence.findLast(predicate: (Char) -> Boolean): Char? {\n return lastOrNull(predicate)\n}\n\n/\*\*\n \*  
Returns first character.\n \* @throws [NoSuchElementException] if the char sequence is empty.\n \* \n\npublic fun  
CharSequence.first(): Char {\n if (isEmpty())\n throw NoSuchElementException("Char sequence is  
empty.")\n return this[0]\n}\n\n/\*\*\n \* Returns the first character matching the given [predicate].\n \* @throws  
[NoSuchElementException] if no such character is found.\n \* \n\npublic inline fun CharSequence.first(predicate:  
(Char) -> Boolean): Char {\n for (element in this) if (predicate(element)) return element\n throw  
NoSuchElementException("Char sequence contains no character matching the predicate.")\n}\n\n/\*\*\n \* Returns  
the first non-null value produced by [transform] function being applied to characters of this char sequence in  
iteration order,\n \* or throws [NoSuchElementException] if no non-null value was produced.\n \* \n \* @sample  
samples.collections.Collections.Transformations.firstNotNullOf\n \* \n\n@SinceKotlin("1.5")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun <R : Any>  
CharSequence.firstNotNullOf(transform: (Char) -> R?): R {\n return firstNotNullOfOrNull(transform) ?: throw  
NoSuchElementException("No element of the char sequence was transformed to a non-null  
value.")\n}\n\n/\*\*\n \* Returns the first non-null value produced by [transform] function being applied to characters  
of this char sequence in iteration order,\n \* or `null` if no non-null value was produced.\n \* \n \* @sample  
samples.collections.Collections.Transformations.firstNotNullOf\n \* \n\n@SinceKotlin("1.5")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun <R : Any>  
CharSequence.firstNotNullOfOrNull(transform: (Char) -> R?): R? {\n for (element in this) {\n val result =  
transform(element)\n if (result != null) {\n return result\n }\n }\n return null\n}\n\n/\*\*\n \*  
Returns the first character, or `null` if the char sequence is empty.\n \* \n\npublic fun CharSequence.firstOrNull():  
Char? {\n return if (isEmpty()) null else this[0]\n}\n\n/\*\*\n \* Returns the first character matching the given  
[predicate], or `null` if character was not found.\n \* \n\npublic inline fun CharSequence.firstOrNull(predicate: (Char) -  
> Boolean): Char? {\n for  
(element in this) if (predicate(element)) return element\n return null\n}\n\n/\*\*\n \* Returns a character at the given  
[index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this char sequence.\n \* \n\n@kotlin.internal.InlineOnly\n\npublic inline fun CharSequence.getOrNull(index: Int, defaultValue: (Int) -> Char):  
Char {\n return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/\*\*\n \* Returns a  
character at the given [index] or `null` if the [index] is out of bounds of this char sequence.\n \* \n \* @sample  
samples.collections.Collections.Elements.getOrNull\n \* \n\npublic fun CharSequence.getOrNull(index: Int): Char?  
{\n return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/\*\*\n \* Returns index of the first



```

character matching the given [predicate], or -1 if the char sequence does not contain such character.\n */\npublic
inline fun CharSequence.indexOfFirst(predicate: (Char) -> Boolean): Int {\n
    for (index in indices) {\n        if (predicate(this[index])) {\n            return index\n        }\n    }\n    return -
1\n}\n\n/**\n * Returns index of the last character matching the given [predicate], or -1 if the char sequence does
not contain such character.\n */\npublic inline fun CharSequence.indexOfLast(predicate: (Char) -> Boolean): Int {\n
    for (index in indices.reversed()) {\n        if (predicate(this[index])) {\n            return index\n        }\n    }\n    return -
1\n}\n\n/**\n * Returns the last character.\n * \n * @throws NoSuchElementException if the char sequence is
empty.\n * \n * @sample samples.text.Strings.last\n */\npublic fun CharSequence.last(): Char {\n    if (isEmpty())\n        throw NoSuchElementException("Char sequence is empty.")\n    return this[lastIndex]\n}\n\n/**\n * Returns the
last character matching the given [predicate].\n * \n * @throws NoSuchElementException if no such character is
found.\n * \n * @sample samples.text.Strings.last\n */\npublic
inline fun CharSequence.last(predicate: (Char) -> Boolean): Char {\n    for (index in this.indices.reversed()) {\n
        val element = this[index]\n        if (predicate(element)) return element\n    }\n    throw
NoSuchElementException("Char sequence contains no character matching the predicate.")\n}\n\n/**\n * Returns
the last character, or `null` if the char sequence is empty.\n * \n * @sample samples.text.Strings.last\n */\npublic fun
CharSequence.lastOrNull(): Char? {\n    return if (isEmpty()) null else this[length - 1]\n}\n\n/**\n * Returns the last
character matching the given [predicate], or `null` if no such character was found.\n * \n * @sample
samples.text.Strings.last\n */\npublic inline fun CharSequence.lastOrNull(predicate: (Char) -> Boolean): Char? {\n
    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if (predicate(element)) return element\n
    }\n    return null\n}\n\n/**\n * Returns a random character from this char sequence.\n
* \n * @throws NoSuchElementException if this char sequence is empty.\n
*/\n\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.random(): Char {\n
    return random(Random)\n}\n\n/**\n * Returns a random character from this char sequence using the specified
source of randomness.\n * \n * @throws NoSuchElementException if this char sequence is empty.\n
*/\n\n@SinceKotlin("1.3")\npublic fun CharSequence.random(random: Random): Char {\n    if (isEmpty())\n        throw NoSuchElementException("Char sequence is empty.")\n    return get(random.nextInt(length))\n}\n\n/**\n *
Returns a random character from this char sequence, or `null` if this char sequence is empty.\n
*/\n\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline fun CharSequence.randomOrNull(): Char? {\n    return randomOrNull(Random)\n}\n\n/**\n * Returns a
random character from this char sequence using the specified source of
randomness, or `null` if this char sequence is empty.\n
*/\n\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun
CharSequence.randomOrNull(random: Random): Char? {\n    if (isEmpty())\n        return null\n    return
get(random.nextInt(length))\n}\n\n/**\n * Returns the single character, or throws an exception if the char sequence
is empty or has more than one character.\n */\npublic fun CharSequence.single(): Char {\n    return when (length)
{\n        0 -> throw NoSuchElementException("Char sequence is empty.")\n        1 -> this[0]\n        else -> throw
IllegalArgumentException("Char sequence has more than one element.")\n    }\n}\n\n/**\n * Returns the single
character matching the given [predicate], or throws exception if there is no or more than one matching character.\n
*/\npublic inline fun CharSequence.single(predicate: (Char) -> Boolean): Char {\n    var single: Char? = null\n    var
found = false\n    for (element in this) {\n        if (predicate(element))\n            {\n                if (found) throw IllegalArgumentException("Char sequence contains more than one matching
element.")\n                single = element\n                found = true\n            }\n    }\n    if (!found) throw
NoSuchElementException("Char sequence contains no character matching the predicate.")\n    @Suppress("UNCHECKED_CAST")\n    return single as Char\n}\n\n/**\n * Returns single character, or `null` if
the char sequence is empty or has more than one character.\n */\npublic fun CharSequence.singleOrNull(): Char?
{\n    return if (length == 1) this[0] else null\n}\n\n/**\n * Returns the single character matching the given
[predicate], or `null` if character was not found or more than one character was found.\n */\npublic inline fun
CharSequence.singleOrNull(predicate: (Char) -> Boolean): Char? {\n    var single: Char? = null\n    var found =

```

```

false\n for (element in this) {\n if (predicate(element)) {\n if (found) return null\n single
= element\n found = true\n }\n }\n if (!found) return null\n return single\n}\n\n/**\n * Returns a
subsequence of this char sequence with the first [n] characters removed.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.drop\n */\npublic fun
CharSequence.drop(n: Int): CharSequence {\n require(n >= 0) { \"Requested character count $n is less than zero.\"
}\n return subSequence(n.coerceAtMost(length), length)\n}\n\n/**\n * Returns a string with the first [n] characters
removed.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.text.Strings.drop\n */\npublic fun String.drop(n: Int): String {\n require(n >= 0) { \"Requested character
count $n is less than zero.\" }\n return substring(n.coerceAtMost(length))\n}\n\n/**\n * Returns a subsequence of
this char sequence with the last [n] characters removed.\n * \n * @throws IllegalArgumentException if [n] is
negative.\n * \n * @sample samples.text.Strings.drop\n */\npublic fun CharSequence.dropLast(n: Int): CharSequence {\n
require(n >= 0) { \"Requested character count $n is less than zero.\" }\n return take((length -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a string with the last [n] characters removed.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.drop\n */\npublic fun
String.dropLast(n: Int): String {\n require(n >= 0) { \"Requested character count $n is less than zero.\" }\n return
take((length - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a subsequence of this char sequence containing all
characters except last characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.drop\n
*/\npublic inline fun CharSequence.dropLastWhile(predicate: (Char) -> Boolean): CharSequence {\n for (index in
lastIndex downTo 0)\n if (!predicate(this[index]))\n return subSequence(0, index + 1)\n return
\"\"\n}\n\n/**\n * Returns a string containing all characters except last characters that satisfy the given
[predicate].\n * \n * @sample samples.text.Strings.drop\n */\npublic inline fun String.dropLastWhile(predicate:
(Char) -> Boolean): String {\n for (index in lastIndex downTo 0)\n if (!predicate(this[index]))\n return
substring(0, index + 1)\n return \"\"\n}\n\n/**\n * Returns a subsequence of this char sequence containing all
characters except first characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.drop\n
*/\npublic inline fun CharSequence.dropWhile(predicate: (Char) -> Boolean): CharSequence {\n for (index in
this.indices)\n if (!predicate(this[index]))\n return subSequence(index, length)\n return \"\"\n}\n\n/**\n * Returns a string containing all characters except first characters that satisfy the given [predicate].\n * \n *
@sample samples.text.Strings.drop\n */\npublic inline fun String.dropWhile(predicate:
(Char) -> Boolean): String {\n for (index in this.indices)\n if (!predicate(this[index]))\n return
substring(index)\n return \"\"\n}\n\n/**\n * Returns a char sequence containing only those characters from the
original char sequence that match the given [predicate].\n * \n * @sample samples.text.Strings.filter\n */\npublic
inline fun CharSequence.filter(predicate: (Char) -> Boolean): CharSequence {\n return filterTo(StringBuilder(),
predicate)\n}\n\n/**\n * Returns a string containing only those characters from the original string that match the
given [predicate].\n * \n * @sample samples.text.Strings.filter\n */\npublic inline fun String.filter(predicate: (Char) -
> Boolean): String {\n return filterTo(StringBuilder(), predicate).toString()\n}\n\n/**\n * Returns a char sequence
containing only those characters from the original char sequence that match the given [predicate].\n * @param
[predicate] function that takes the index of a character
and the character itself\n * and returns the result of predicate evaluation on the character.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun CharSequence.filterIndexed(predicate:
(index: Int, Char) -> Boolean): CharSequence {\n return filterIndexedTo(StringBuilder(), predicate)\n}\n\n/**\n * Returns a string containing only those characters from the original string that match the given [predicate].\n *
@param [predicate] function that takes the index of a character and the character itself\n * and returns the result of
predicate evaluation on the character.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n
*/\npublic inline fun String.filterIndexed(predicate: (index: Int, Char) -> Boolean): String {\n return
filterIndexedTo(StringBuilder(), predicate).toString()\n}\n\n/**\n * Appends all characters matching the given
[predicate] to the given [destination].\n * @param [predicate] function that takes the

```

```

index of a character and the character itself\n * and returns the result of predicate evaluation on the character.\n * \n
* @sample samples.collections.Collections.Filtering.filterIndexedTo\n *^\npublic inline fun <C : Appendable>
CharSequence.filterIndexedTo(destination: C, predicate: (index: Int, Char) -> Boolean): C {\n  forEachIndexed {
index, element ->\n    if (predicate(index, element)) destination.append(element)\n  }\n  return
destination\n}\n\n/**\n * Returns a char sequence containing only those characters from the original char sequence
that do not match the given [predicate].\n * \n * @sample samples.text.Strings.filterNot\n *^\npublic inline fun
CharSequence.filterNot(predicate: (Char) -> Boolean): CharSequence {\n  return filterNotTo(StringBuilder(),
predicate)\n}\n\n/**\n * Returns a string containing only those characters from the original string that do not match
the given [predicate].\n * \n * @sample samples.text.Strings.filterNot\n *^\npublic inline fun
String.filterNot(predicate: (Char) -> Boolean): String {\n  return filterNotTo(StringBuilder(),
predicate).toString()\n}\n\n/**\n * Appends all characters not matching the given [predicate] to the given
[destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n *^\npublic inline fun <C :
Appendable> CharSequence.filterNotTo(destination: C, predicate: (Char) -> Boolean): C {\n  for (element in this)
if (!predicate(element)) destination.append(element)\n  return destination\n}\n\n/**\n * Appends all characters
matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n *^\npublic inline fun <C : Appendable>
CharSequence.filterTo(destination: C, predicate: (Char) -> Boolean): C {\n  for (index in 0 until length) {\n    val
element = get(index)\n    if (predicate(element)) destination.append(element)\n  }\n  return
destination\n}\n\n/**\n * Returns a char sequence containing
characters of the original char sequence at the specified range of [indices].\n *^\npublic fun
CharSequence.slice(indices: IntRange): CharSequence {\n  if (indices.isEmpty()) return ""\n  return
subSequence(indices)\n}\n\n/**\n * Returns a string containing characters of the original string at the specified
range of [indices].\n *^\npublic fun String.slice(indices: IntRange): String {\n  if (indices.isEmpty()) return ""\n
return substring(indices)\n}\n\n/**\n * Returns a char sequence containing characters of the original char sequence
at specified [indices].\n *^\npublic fun CharSequence.slice(indices: Iterable<Int>): CharSequence {\n  val size =
indices.collectionSizeOrDefault(10)\n  if (size == 0) return ""\n  val result = StringBuilder(size)\n  for (i in
indices) {\n    result.append(get(i))\n  }\n  return result\n}\n\n/**\n * Returns a string containing characters of
the original string at specified [indices].\n *^\n@kotlin.internal.InlineOnly\npublic
inline fun String.slice(indices: Iterable<Int>): String {\n  return (this as
CharSequence).slice(indices).toString()\n}\n\n/**\n * Returns a subsequence of this char sequence containing the
first [n] characters from this char sequence, or the entire char sequence if this char sequence is shorter.\n * \n *
* @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.take\n *^\npublic fun
CharSequence.take(n: Int): CharSequence {\n  require(n >= 0) { "Requested character count $n is less than zero."
}\n  return subSequence(0, n.coerceAtMost(length))\n}\n\n/**\n * Returns a string containing the first [n]
characters from this string, or the entire string if this string is shorter.\n * \n * @throws IllegalArgumentException if
[n] is negative.\n * \n * @sample samples.text.Strings.take\n *^\npublic fun String.take(n: Int): String {\n  require(
n >= 0) { "Requested character count $n is less than zero." }\n  return substring(0,
n.coerceAtMost(length))\n}\n\n/**\n * Returns a subsequence of this char sequence containing the last [n]
characters from this char sequence, or the entire char sequence if this char sequence is shorter.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.take\n *^\npublic fun
CharSequence.takeLast(n: Int): CharSequence {\n  require(n >= 0) { "Requested character count $n is less than zero."
}\n  val length = length\n  return
subSequence(length - n.coerceAtMost(length), length)\n}\n\n/**\n * Returns a string containing the last [n]
characters from this string, or the entire string if this string is shorter.\n * \n * @throws IllegalArgumentException if
[n] is negative.\n * \n * @sample samples.text.Strings.take\n *^\npublic fun String.takeLast(n: Int): String {\n
require(n >= 0) { "Requested character count $n is less than zero." }\n  val length = length\n  return
substring(length - n.coerceAtMost(length))\n}\n\n/**\n * Returns a subsequence

```

of this char sequence containing last characters that satisfy the given [predicate].

```

@sample samples.text.Strings.takeLastWhile(predicate: (Char) -> Boolean):
CharSequence {
    for (index in lastIndex downTo 0) {
        if (!predicate(this[index])) {
            return
            subSequence(index + 1, length)
        }
    }
    return subSequence(0, length)
}

```

\* Returns a string containing last characters that satisfy the given [predicate].

```

@sample samples.text.Strings.takeLastWhile(predicate: (Char) -> Boolean): String {
    for (index in lastIndex downTo 0) {
        if (!predicate(this[index])) {
            return substring(index + 1)
        }
    }
    return this
}

```

\* Returns a subsequence of this char sequence containing the first characters that satisfy the given [predicate].

```

@sample samples.text.Strings.takeWhile(predicate:
(Char) -> Boolean): CharSequence {
    for (index in 0 until length) {
        if (!predicate(get(index))) {
            return subSequence(0, index)
        }
    }
    return subSequence(0, length)
}

```

\* Returns a string containing the first characters that satisfy the given [predicate].

```

@sample samples.text.Strings.takeWhile(predicate: (Char) -> Boolean): String {
    for (index in 0 until length) {
        if (!predicate(get(index))) {
            return substring(0, index)
        }
    }
    return this
}

```

\* Returns a char sequence with characters in reversed order.

```

@public fun CharSequence.reversed(): CharSequence {
    return
    StringBuilder(this).reverse()
}

```

\* Returns a string with characters in reversed order.

```

@kotlin.internal.InlineOnly public inline fun String.reversed(): String {
    return (this as
CharSequence).reversed().toString()
}

```

\* Returns a [Map] containing key-value pairs provided by [transform] function applied to characters of the given char sequence.

\* If any of two pairs would have the same key the last one gets added to the map.

\* The returned map preserves the entry iteration order of the original char sequence.

```

@sample samples.text.Strings.associate<K, V>
CharSequence.associate(transform: (Char) -> Pair<K, V>): Map<K, V> {
    val capacity =
    mapCapacity(length).coerceAtLeast(16)
    return associateTo(LinkedHashMap<K, V>(capacity),
    transform)
}

```

\* Returns a [Map] containing the characters from the given char sequence indexed by the key returned from [keySelector] function applied to each character.

\* If any two characters would have the same key returned by [keySelector] the last one gets added to the map.

\* The returned map preserves the entry iteration order of the original char sequence.

```

@sample samples.text.Strings.associateBy
CharSequence.associateBy(keySelector: (Char) -> K): Map<K, Char> {
    val capacity =
    mapCapacity(length).coerceAtLeast(16)
    return associateByTo(LinkedHashMap<K, Char>(capacity),
    keySelector)
}

```

\* Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to characters of the given char sequence.

\* If any two characters would have the same key returned by [keySelector] the last one gets added to the map.

\* The returned map preserves the entry iteration order of the original char sequence.

```

@sample
samples.text.Strings.associateByWithValueTransform
CharSequence.associateBy(keySelector: (Char) -> K, valueTransform: (Char) -> V): Map<K, V> {
    val capacity =
    mapCapacity(length).coerceAtLeast(16)
    return associateByTo(LinkedHashMap<K, V>(capacity),
    keySelector, valueTransform)
}

```

\* Populates and returns the [destination] mutable map with key-value pairs, where key is provided by the [keySelector] function applied to each character of the given char sequence and value is the character itself.

\* If any two characters would have the same key returned by [keySelector] the last one gets added to the map.

```

@sample samples.text.Strings.associateByTo
inline fun <K, M : MutableMap<in K, in Char>>
CharSequence.associateByTo(destination: M, keySelector: (Char) -> K): M {
    for (element in this) {
        destination.put(keySelector(element), element)
    }
    return
    destination
}

```

\* Populates and returns the [destination] mutable map with key-value pairs, where key is provided by the [keySelector] function and value is provided by the [valueTransform] function applied to characters of the given char sequence.

\* If any two characters would have the same key returned by [keySelector] the last one gets added to the map.

```

@sample
samples.text.Strings.associateByToWithValueTransform

```

```

*^public inline fun <K, V, M : MutableMap<in K, in V>> CharSequence.associateByTo(destination: M,
keySelector: (Char) -> K, valueTransform: (Char) -> V): M {
    for (element in this) {
        destination.put(keySelector(element), valueTransform(element))
    }
    return destination
}

* Populates and returns the [destination] mutable map with key-value pairs
* provided by [transform] function applied to each character of the given char sequence.
* If any of two pairs would have the same key the last one gets added to the map.
* @sample samples.text.Strings.associateTo

*^public inline fun <K, V, M : MutableMap<in K, in V>> CharSequence.associateTo(destination: M, transform: (Char) -> Pair<K, V>): M {
    for (element in this) {
        destination += transform(element)
    }
    return destination
}

* Returns a [Map] where keys are characters from the given char sequence and values are
* produced by the [valueSelector] function applied to each character.
* If any two characters are equal, the last one gets added to the map.
* The returned map preserves the entry iteration order of the original char sequence.
* @sample samples.text.Strings.associateWith

*^@SinceKotlin("1.3")^public inline fun <V> CharSequence.associateWith(valueSelector: (Char) -> V): Map<Char, V> {
    val result = LinkedHashMap<Char, V>(mapCapacity(length.coerceAtMost(128)).coerceAtLeast(16))
    return associateWithTo(result, valueSelector)
}

* Populates and returns the [destination] mutable map with key-value pairs for each character of the given char sequence,
* where key is the character itself and value is provided by the [valueSelector] function applied to that key.
* If any two characters are equal, the last one overwrites the former value in the map.
* @sample samples.text.Strings.associateWithTo

*^@SinceKotlin("1.3")^public inline fun <V, M : MutableMap<in Char, in V>> CharSequence.associateWithTo(destination: M, valueSelector: (Char) -> V): M {
    for (element in this) {
        destination.put(element, valueSelector(element))
    }
    return destination
}

* Appends all characters to the given [destination] collection.

*^public fun <C : MutableCollection<in Char>> CharSequence.toCollection(destination: C): C {
    for (item in this) {
        destination.add(item)
    }
    return destination
}

* Returns a new [HashSet] of all characters.

*^public fun CharSequence.toHashSet(): HashSet<Char> {
    return toCollection(HashSet<Char>(mapCapacity(length.coerceAtMost(128))))
}

* Returns a [List] containing all characters.

*^public fun CharSequence.toList(): List<Char> {
    return when (length) {
        0 -> emptyList()
        1 -> listOf(this[0])
        else -> this.toMutableList()
    }
}

* Returns a new [MutableList] filled with all characters of this char sequence.

*^public fun CharSequence.toMutableList(): MutableList<Char> {
    return toCollection(ArrayList<Char>(length))
}

* Returns a [Set] of all characters.
* The returned set preserves the element iteration order of the original char sequence.

*^public fun CharSequence.toSet(): Set<Char> {
    return when (length) {
        0 -> emptySet()
        1 -> setOf(this[0])
        else -> toCollection(LinkedHashSet<Char>(mapCapacity(length.coerceAtMost(128))))
    }
}

* Returns a single list of all elements yielded from results of [transform] function being invoked on each character of original char sequence.
* @sample samples.collections.Collections.Transformations.flatMap

*^public inline fun <R> CharSequence.flatMap(transform: (Char) -> Iterable<R>): List<R> {
    return flatMapTo(ArrayList<R>(), transform)
}

* Returns a single list of all elements yielded from results of [transform] function being invoked on each character
* and its index in the original char sequence.
* @sample samples.collections.Collections.Transformations.flatMapIndexed

*^@SinceKotlin("1.4")^@OptIn(kotlin.experimental.ExperimentalTypeInference::class)^@OverloadResolutionByLambdaReturnType^@kotlin.jvm.JvmName("flatMapIndexedIterable")^@kotlin.internal.InlineOnly^public inline fun <R> CharSequence.flatMapIndexed(transform: (index: Int, Char) -> Iterable<R>): List<R> {
    return flatMapIndexedTo(ArrayList<R>(), transform)
}

* Appends all elements yielded from results of [transform] function being invoked on each character
* and its index in the original char sequence, to the given [destination].

*^@SinceKotlin("1.4")^@OptIn(kotlin.experimental.ExperimentalTypeInference::class)^@OverloadResolutionByLambdaReturnType^@kotlin.jvm.JvmName("flatMapIndexedIterableTo")^@kotlin.internal.InlineOnly^public

```

```

c inline fun <R, C : MutableCollection<in R>> CharSequence.flatMapIndexedTo(destination: C, transform:
(index: Int, Char) -> Iterable<R>): C {
    var index = 0
    for (element in this) {
        val list =
transform(index++, element)
        destination.addAll(list)
    }
    return destination
}

Append all
elements yielded from results of [transform] function being invoked on each character of original char sequence, to
the given [destination].

public inline fun <R, C : MutableCollection<in R>>
CharSequence.flatMapTo(destination: C, transform: (Char) -> Iterable<R>): C {
    for (element in this) {
        val
list = transform(element)
        destination.addAll(list)
    }
    return destination
}

Groups characters
of the original char sequence by the key returned by the given [keySelector] function
applied to each character
and returns a map where each group key is associated with a list of corresponding characters.

The returned
map preserves the entry iteration order of the keys produced from the original char sequence.

@sample samples.collections.Collections.Transformations.groupBy

public inline fun <K>
CharSequence.groupBy(keySelector: (Char) -> K): Map<K, List<Char>> {
    return
groupByTo(LinkedHashMap<K, MutableList<Char>>(), keySelector)
}

Groups values returned by the
[valueTransform] function applied to each character of the original char sequence
by the key returned by the
given [keySelector] function applied to the character
and returns a map where each group key is associated with
a list of corresponding values.

The returned map preserves the entry iteration order of the keys produced
from the original char sequence.

@sample
samples.collections.Collections.Transformations.groupByKeysAndValues

public inline fun <K, V>
CharSequence.groupBy(keySelector: (Char) -> K, valueTransform: (Char) -> V): Map<K, List<V>> {
    return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)
}

Groups
characters of the
original char sequence by the key returned by the given [keySelector] function
applied to each character and
puts to the [destination] map each group key associated with a list of corresponding characters.

@return The
[destination] map.

@sample samples.collections.Collections.Transformations.groupBy

public inline
fun <K, M : MutableMap<in K, MutableList<Char>>> CharSequence.groupByTo(destination: M, keySelector:
(Char) -> K): M {
    for (element in this) {
        val key = keySelector(element)
        val list =
destination.getOrPut(key) { ArrayList<Char>() }
        list.add(element)
    }
    return destination
}

Groups values returned by the [valueTransform] function applied to each character of the original char sequence
by the key returned by the given [keySelector] function applied to the character
and puts to the [destination] map
each group key associated with a list of corresponding values.

@return The [destination]
map.

@sample samples.collections.Collections.Transformations.groupByKeysAndValues

public inline
fun <K, V, M : MutableMap<in K, MutableList<V>>> CharSequence.groupByTo(destination: M,
keySelector: (Char) -> K, valueTransform: (Char) -> V): M {
    for (element in this) {
        val key =
keySelector(element)
        val list = destination.getOrPut(key) { ArrayList<V>() }
        list.add(valueTransform(element))
    }
    return destination
}

Creates a [Grouping] source from a
char sequence to be used later with one of group-and-fold operations
using the specified [keySelector] function
to extract a key from each character.

@sample samples.collections.Grouping.groupingByEachCount

@SinceKotlin("1.1")
public inline fun <K> CharSequence.groupingBy(crossinline keySelector: (Char) -> K):
Grouping<Char, K> {
    return object : Grouping<Char, K> {
        override fun sourceIterator(): Iterator<Char>
= this@groupingBy.iterator()

        override fun keyOf(element: Char): K = keySelector(element)
    }
}

Returns a list containing the
results of applying the given [transform] function
to each character in the original char sequence.

@sample samples.text.Strings.map

public inline fun <R> CharSequence.map(transform: (Char) -> R):
List<R> {
    return mapTo(ArrayList<R>(length), transform)
}

Returns a list containing the results of
applying the given [transform] function
to each character and its index in the original char sequence.

@param [transform] function that takes the index of a character and the character itself
and returns the result of
the transform applied to the character.

public inline fun <R> CharSequence.mapIndexed(transform: (index:
Int, Char) -> R): List<R> {
    return mapIndexedTo(ArrayList<R>(length), transform)
}

Returns a list

```

containing only the non-null results of applying the given [transform] function to each character and its index in the original char sequence.

`\n * @param [transform] function that takes the index of a character and the character itself\n * and returns the result of the transform applied to the character.\n */\npublic inline fun <R : Any> CharSequence.mapIndexedNotNull(transform: (index: Int, Char) -> R?): List<R> {\n return mapIndexedNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given [transform] function to each character and its index in the original char sequence\n * and appends only the non-null results to the given [destination].\n * @param [transform] function that takes the index of a character and the character itself\n * and returns the result of the transform applied to the character.\n */\npublic inline fun <R : Any, C : MutableCollection<in R>> CharSequence.mapIndexedNotNullTo(destination: C, transform: (index: Int, Char) -> R?): C {\n forEachIndexed { index, element -> transform(index, element)?.let { destination.add(it) } }\n return destination\n}\n\n/**\n * Applies the given [transform] function to each character and its index in the original char sequence\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of a character and the character itself\n * and returns the result of the transform applied to the character.\n */\npublic inline fun <R, C : MutableCollection<in R>> CharSequence.mapIndexedTo(destination: C, transform: (index: Int, Char) -> R): C {\n var index = 0\n for (item in this)\n destination.add(transform(index++, item))\n return destination\n}\n\n/**\n * Returns a list containing only the non-null results of applying the given [transform] function\n * to each character in the original char sequence.\n */\n * @sample samples.collections.Collections.Transformations.mapNotNull\n */\npublic inline fun <R : Any> CharSequence.mapNotNull(transform: (Char) -> R?): List<R> {\n return mapNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given [transform] function to each character in the original char sequence\n * and appends only the non-null results to the given [destination].\n */\npublic inline fun <R : Any, C : MutableCollection<in R>> CharSequence.mapNotNullTo(destination: C, transform: (Char) -> R?): C {\n forEach { element -> transform(element)?.let { destination.add(it) } }\n return destination\n}\n\n/**\n * Applies the given [transform] function to each character of the original char sequence\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> CharSequence.mapTo(destination: C, transform: (Char) -> R): C {\n for (item in this)\n destination.add(transform(item))\n return destination\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each character of the original char sequence\n * into an [IndexedValue] containing the index of that character and the character itself.\n */\npublic fun CharSequence.withIndex(): Iterable<IndexedValue<Char>> {\n return IndexingIterable { iterator() }\n}\n\n/**\n * Returns `true` if all characters match the given [predicate].\n */\n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun CharSequence.all(predicate: (Char) -> Boolean): Boolean {\n for (element in this) if (!predicate(element)) return false\n return true\n}\n\n/**\n * Returns `true` if char sequence has at least one character.\n */\n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun CharSequence.any(): Boolean {\n return !isEmpty()\n}\n\n/**\n * Returns `true` if at least one character matches the given [predicate].\n */\n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun CharSequence.any(predicate: (Char) -> Boolean): Boolean {\n for (element in this) if (predicate(element)) return true\n return false\n}\n\n/**\n * Returns the length of this char sequence.\n */\n * @kotlin.internal\n */\npublic inline fun CharSequence.count(): Int {\n return length\n}\n\n/**\n * Returns the number of characters matching the given [predicate].\n */\npublic inline fun CharSequence.count(predicate: (Char) -> Boolean): Int {\n var count = 0\n for (element in this) if (predicate(element)) ++count\n return count\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each character.\n */\n * Returns the specified [initial] value if the char sequence is empty.\n */\n * @param [operation] function that takes current accumulator value and a character, and calculates the next accumulator value.\n */\npublic inline fun <R> CharSequence.fold(initial: R, operation: (acc: R, Char) -> R): R {\n var accumulator = initial\n for (element in this) accumulator = operation(accumulator, element)\n return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation]`

from left to right

```

 * to current accumulator value and each character with its index in the original char sequence.
 * Returns the specified [initial] value if the char sequence is empty.
 * @param [operation] function that takes the index of a character, current accumulator value
 * and the character itself, and calculates the next accumulator value.
 */
public inline fun <R> CharSequence.foldIndexed(initial: R, operation: (index: Int, acc: R, Char) -> R): R {
    var index = 0
    var accumulator = initial
    for (element in this) accumulator = operation(index++, accumulator, element)
    return accumulator
}

```

Accumulates value starting with [initial] value and applying [operation] from right to left

```

 * to each character and current accumulator value.
 * Returns the specified [initial] value if the char sequence is empty.
 * @param [operation] function that takes a character and current accumulator value, and calculates the next accumulator
 * value.
 */
public inline fun <R> CharSequence.foldRight(initial: R, operation: (Char, acc: R) -> R): R {
    var index = lastIndex
    var accumulator = initial
    while (index >= 0) {
        accumulator = operation(get(index--), accumulator)
    }
    return accumulator
}

```

Accumulates value starting with [initial] value and applying [operation] from right to left

```

 * to each character with its index in the original char sequence and current accumulator value.
 * Returns the specified [initial] value if the char sequence is empty.
 * @param [operation] function that takes the index of a character, the character itself
 * and current accumulator value, and calculates the next accumulator value.
 */
public inline fun <R> CharSequence.foldRightIndexed(initial: R, operation: (index: Int, Char, acc: R) -> R): R {
    var index = lastIndex
    var accumulator = initial
    while (index >= 0) {
        accumulator = operation(index, get(index), accumulator)
        --index
    }
    return accumulator
}

```

Performs the given [action] on each character

```

 */
public inline fun CharSequence.forEach(action: (Char) -> Unit): Unit {
    for (element in this) action(element)
}

```

Performs the given [action] on each character, providing sequential index with the character

```

 * @param [action] function that takes the index of a character and the character itself
 * and performs the action on the character.
 */
public inline fun CharSequence.forEachIndexed(action: (index: Int, Char) -> Unit): Unit {
    var index = 0
    for (item in this) action(index++, item)
}

```

@Deprecated("Use maxOrNull instead.", ReplaceWith("this.maxOrNull()"))

```

 */
@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5", hiddenSince = "1.6")
public fun CharSequence.max(): Char? {
    return maxOrNull()
}

```

@Deprecated("Use maxByOrNull instead.", ReplaceWith("this.maxByOrNull(selector)"))

```

 */
@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5", hiddenSince = "1.6")
public inline fun <R : Comparable<R>> CharSequence.maxBy(selector: (Char) -> R): Char? {
    return maxByOrNull(selector)
}

```

Returns the first character yielding the largest value of the given function or `null` if there are no characters

```

 * @sample samples.collections.Collections.Aggregates.maxByOrNull
 * @SinceKotlin("1.4")
 */
public inline fun <R : Comparable<R>> CharSequence.maxByOrNull(selector: (Char) -> R): Char? {
    if (isEmpty()) return null
    var maxElem = this[0]
    val lastIndex = this.lastIndex
    if (lastIndex == 0) return maxElem
    var maxValue = selector(maxElem)
    for (i in 1..lastIndex) {
        val e = this[i]
        val v = selector(e)
        if (maxValue < v) {
            maxElem = e
            maxValue = v
        }
    }
    return maxElem
}

```

Returns the largest value among all values produced by [selector] function

```

 * applied to each character in the char sequence.
 * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.
 * @throws NoSuchElementException if the char sequence is empty.
 */
@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.internal.InlineOnly
public inline fun CharSequence.maxOf(selector: (Char) -> Double): Double {
    if (isEmpty()) throw NoSuchElementException()
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        maxValue = maxOf(maxValue, v)
    }
    return maxValue
}

```

Returns the largest value among all values produced by [selector] function

```

 * applied to each character in the char sequence.
 * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.
 * @throws NoSuchElementException if the char sequence is empty.
 */
@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.internal.InlineOnly
public

```



```

inline fun CharSequence.maxOf(selector: (Char) -> Float): Float {
    if (isEmpty()) throw NoSuchElementException()
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        maxValue = maxOf(maxValue, v)
    }
    return maxValue
}
// Returns the largest value among all values produced by [selector] function
// applied to each character in the char sequence.
// @throws NoSuchElementException if the char sequence is empty.

@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.internal.InlineOnly
public inline fun <R : Comparable<R>>
CharSequence.maxOf(selector: (Char) -> R): R {
    if (isEmpty()) throw NoSuchElementException()
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        if (maxValue < v) {
            maxValue = v
        }
    }
    return maxValue
}
// Returns the largest value among all values produced by [selector] function
// applied to each character in the char sequence or `null` if there are no characters.
// If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.

@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.internal.InlineOnly
public inline fun CharSequence.maxOfOrNull(selector:
(Char) -> Double): Double? {
    if (isEmpty()) return null
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        maxValue = maxOf(maxValue, v)
    }
    return maxValue
}
// Returns the largest value among all values produced by [selector] function
// applied to each character in the char sequence or `null` if there
// are no characters.
// If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.

@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.internal.InlineOnly
public inline fun CharSequence.maxOfOrNull(selector:
(Char) -> Float): Float? {
    if (isEmpty()) return null
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        maxValue = maxOf(maxValue, v)
    }
    return maxValue
}
// Returns the largest value among all values produced by [selector] function
// applied to each character in the char sequence or `null` if there are no characters.

@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.internal.InlineOnly
public inline fun <R : Comparable<R>>
CharSequence.maxOfOrNull(selector: (Char) -> R): R? {
    if (isEmpty()) return null
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        if (maxValue < v) {
            maxValue = v
        }
    }
    return maxValue
}
// Returns the largest value according to the provided [comparator]
// among all values produced by [selector] function applied to each character in the char sequence.
// @throws NoSuchElementException if the char sequence is empty.

@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.internal.InlineOnly
public inline fun <R> CharSequence.maxOfWith(comparator:
Comparator<in R>, selector: (Char) -> R): R {
    if (isEmpty()) throw NoSuchElementException()
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        if (comparator.compare(maxValue, v) < 0) {
            maxValue = v
        }
    }
    return maxValue
}
// Returns the largest value according to the provided [comparator]
// among all values produced by [selector] function applied to each character in the char sequence
// or `null` if there are no characters.

@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.internal.InlineOnly
public inline fun <R>
CharSequence.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Char) -> R): R? {
    if (isEmpty()) return null
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        if (comparator.compare(maxValue, v) < 0) {
            maxValue = v
        }
    }
    return maxValue
}
// Returns the largest character or `null` if there are no characters.

@SinceKotlin("1.4")
public fun
CharSequence.maxOrNull(): Char? {
    if (isEmpty()) return null
    var max = this[0]
    for (i in 1..lastIndex)

```

```

{\n    val
    e = this[i]\n        if (max < e) max = e\n    }\n    return max\n}\n\n@Deprecated("Use maxWithOrNull instead.",
ReplaceWith("this.maxWithOrNull(comparator)"))\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince
= "1.5", hiddenSince = "1.6")\npublic fun CharSequence.maxWith(comparator: Comparator<in Char>): Char?
{\n    return maxWithOrNull(comparator)\n}\n\n/**\n * Returns the first character having the largest value
according to the provided [comparator] or `null` if there are no characters.\n * \n\n@SinceKotlin("1.4")\npublic fun
CharSequence.maxWithOrNull(comparator: Comparator<in Char>): Char? {\n    if (isEmpty()) return null\n    var
max = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (comparator.compare(max, e) < 0) max = e\n
}\n    return max\n}\n\n@Deprecated("Use minOrNull instead.",
ReplaceWith("this.minOrNull()"))\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5",
hiddenSince = "1.6")\npublic fun CharSequence.min():
Char? {\n    return minOrNull()\n}\n\n@Deprecated("Use minByOrNull instead.",
ReplaceWith("this.minByOrNull(selector)"))\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince =
"1.5", hiddenSince = "1.6")\npublic inline fun <R : Comparable<R>> CharSequence.minBy(selector: (Char) ->
R): Char? {\n    return minByOrNull(selector)\n}\n\n/**\n * Returns the first character yielding the smallest value of
the given function or `null` if there are no characters.\n * \n * \n * @sample
samples.collections.Collections.Aggregates.minByOrNull\n * \n\n@SinceKotlin("1.4")\npublic inline fun <R :
Comparable<R>> CharSequence.minByOrNull(selector: (Char) -> R): Char? {\n    if (isEmpty()) return null\n    var
minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var minValue =
selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (minValue > v)
{\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the smallest value among all values
produced by [selector] function\n * applied to each character in the char sequence.\n * \n * If any of values produced
by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the char
sequence is empty.\n * \n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.minOf(selector: (Char) ->
Double): Double {\n    if (isEmpty()) throw NoSuchElementException()\n    var minValue = selector(this[0])\n    for
(i in 1..lastIndex) {\n        val v = selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each character in the char sequence.\n * \n * If any of values produced
by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the char
sequence is empty.\n * \n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.minOf(selector: (Char) ->
Float): Float {\n    if (isEmpty()) throw NoSuchElementException()\n    var minValue = selector(this[0])\n    for (i in
1..lastIndex) {\n        val v = selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each character in the char sequence.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n * \n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
CharSequence.minOf(selector: (Char) -> R): R {\n    if (isEmpty()) throw NoSuchElementException()\n    var
minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if (minValue > v) {\n
            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values
produced by [selector] function\n * applied to each character in the char sequence or `null` if there are no
characters.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.minOfOrNull(selector:

```

```

(Char) -> Double): Double? {\n  if (isEmpty()) return null\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    minValue = minOf(minValue, v)\n  }\n  return minValue\n}\n\n/*\n * Returns the smallest value among all values produced by [selector] function\n * applied to each character in the char sequence or `null` if there are no characters.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.minOrNull(selector: (Char) -> Float): Float? {\n  if (isEmpty()) return null\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    minValue = minOf(minValue, v)\n  }\n  return minValue\n}\n\n/*\n * Returns the smallest value among all values produced by [selector] function\n * applied to each character in the char sequence or `null` if there are no characters.\n */\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> CharSequence.minOrNull(selector: (Char) -> R): R? {\n  if (isEmpty()) return null\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (minValue > v) {\n      minValue = v\n    }\n  }\n  return minValue\n}\n\n/*\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each character in the char sequence.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharSequence.minOfWith(comparator: Comparator<in R>, selector: (Char) -> R): R {\n  if (isEmpty()) throw NoSuchElementException()\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (comparator.compare(minValue, v) > 0) {\n      minValue = v\n    }\n  }\n  return minValue\n}\n\n/*\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each character in the char sequence or `null` if there are no characters.\n */\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharSequence.minOfWithOrNull(comparator: Comparator<in R>, selector: (Char) -> R): R? {\n  if (isEmpty()) return null\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (comparator.compare(minValue, v) > 0) {\n      minValue = v\n    }\n  }\n  return minValue\n}\n\n/*\n * Returns the smallest character or `null` if there are no characters.\n */\n\n@SinceKotlin("1.4")\npublic fun CharSequence.minOrNull(): Char? {\n  if (isEmpty()) return null\n  var min = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if (min > e) min = e\n  }\n  return min\n}\n\n@Deprecated("Use minWithOrNull instead.")\nReplaceWith("this.minWithOrNull(comparator)")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5", hiddenSince = "1.6")\npublic fun CharSequence.minWith(comparator: Comparator<in Char>): Char? {\n  return minWithOrNull(comparator)\n}\n\n/*\n * Returns the first character having the smallest value according to the provided [comparator] or `null` if there are no characters.\n */\n\n@SinceKotlin("1.4")\npublic fun CharSequence.minWithOrNull(comparator: Comparator<in Char>): Char? {\n  if (isEmpty()) return null\n  var min = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if (comparator.compare(min, e) > 0) min = e\n  }\n  return min\n}\n\n/*\n * Returns `true` if the char sequence has no characters.\n * \n * @sample\n * samples.collections.Collections.Aggregates.none\n */\n\n@SinceKotlin("1.4")\npublic fun CharSequence.none(): Boolean {\n  return isEmpty()\n}\n\n/*\n * Returns `true` if no characters match the given [predicate].\n * \n * @sample\n * samples.collections.Collections.Aggregates.noneWithPredicate\n */\n\n@SinceKotlin("1.4")\npublic inline fun CharSequence.none(predicate: (Char) -> Boolean): Boolean {\n  for (element in this) if (predicate(element)) return false\n  return true\n}\n\n/*\n * Performs the given [action] on each character and returns the char sequence itself

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afterwards.\n *^\n@SinceKotlin("1.1")\npublic inline fun <S : CharSequence> S.onEach(action: (Char) -> Unit): S
{\n  return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each
character, providing sequential index with the character,\n * and returns the char sequence itself afterwards.\n *
@param [action] function that takes the index of
a character and the character itself\n * and performs the action on the character.\n
*\n@SinceKotlin("1.4")\npublic inline fun <S : CharSequence> S.onEachIndexed(action: (index: Int, Char) ->
Unit): S {\n  return apply { forEachIndexed(action) }\n}\n\n/**\n * Accumulates value starting with the first
character and applying [operation] from left to right\n * to current accumulator value and each character.\n * \n *
Throws an exception if this char sequence is empty. If the char sequence can be empty in an expected way,\n *
please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function
that takes current accumulator value and a character,\n * and calculates the next accumulator value.\n * \n *
@sample samples.collections.Collections.Aggregates.reduce\n *^\npublic inline fun
CharSequence.reduce(operation: (acc: Char, Char) -> Char): Char {\n  if (isEmpty())\n    throw
UnsupportedOperationException("Empty char sequence can't
be reduced.")\n  var accumulator = this[0]\n  for (index in 1..lastIndex) {\n    accumulator =
operation(accumulator, this[index])\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with the
first character and applying [operation] from left to right\n * to current accumulator value and each character with its
index in the original char sequence.\n * \n * Throws an exception if this char sequence is empty. If the char sequence
can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is
empty.\n * \n * @param [operation] function that takes the index of a character, current accumulator value and the
character itself,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduce\n *^\npublic inline fun CharSequence.reduceIndexed(operation:
(index: Int, acc: Char, Char) -> Char): Char {\n  if (isEmpty())\n    throw
UnsupportedOperationException("Empty
char sequence can't be reduced.")\n  var accumulator = this[0]\n  for (index in 1..lastIndex) {\n    accumulator
= operation(index, accumulator, this[index])\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting
with the first character and applying [operation] from left to right\n * to current accumulator value and each
character with its index in the original char sequence.\n * \n * Returns `null` if the char sequence is empty.\n * \n *
@param [operation] function that takes the index of a character, current accumulator value and the character itself,\n
* and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceOrNull\n *^\n@SinceKotlin("1.4")\npublic inline fun
CharSequence.reduceIndexedOrNull(operation: (index: Int, acc: Char, Char) -> Char): Char? {\n  if (isEmpty())\n
return null\n  var accumulator = this[0]\n  for (index in 1..lastIndex) {\n    accumulator = operation(index,
accumulator, this[index])\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with the first
character and applying [operation] from left to right\n * to current accumulator value and each character.\n * \n *
Returns `null` if the char sequence is empty.\n * \n * @param [operation] function that takes current accumulator
value and a character,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun
CharSequence.reduceOrNull(operation: (acc: Char, Char) -> Char): Char? {\n  if (isEmpty())\n    return null\n
var accumulator = this[0]\n  for (index in 1..lastIndex) {\n    accumulator = operation(accumulator, this[index])\n
  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with the last character and applying [operation]
from right to left\n * to each character and current accumulator
value.\n * \n * Throws an exception if this char sequence is empty. If the char sequence can be empty in an
expected way,\n * please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty.\n * \n *
@param [operation] function that takes a character and current accumulator value,\n * and calculates the next
accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n *^\npublic inline
fun CharSequence.reduceRight(operation: (Char, acc: Char) -> Char): Char {\n  var index = lastIndex\n  if (index

```

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< 0) throw UnsupportedOperationException("Empty char sequence can't be reduced.")\n  var accumulator =
get(index--)\n  while (index >= 0) {\n    accumulator = operation(get(index--), accumulator)\n  }\n  return
accumulator\n}\n\n/**\n * Accumulates value starting with the last character and applying [operation] from right to
left\n * to each character with its index in the original char sequence and current accumulator
value.\n * \n * Throws an exception if this char sequence is empty. If the char sequence can be empty in an
expected way,\n * please use [reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n
* @param [operation] function that takes the index of a character, the character itself and current accumulator
value,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceRight\n */\npublic inline fun
CharSequence.reduceRightIndexed(operation: (index: Int, Char, acc: Char) -> Char): Char {\n  var index =
lastIndex\n  if (index < 0) throw UnsupportedOperationException("Empty char sequence can't be reduced.")\n
var accumulator = get(index--)\n  while (index >= 0) {\n    accumulator = operation(index, get(index),
accumulator)\n    --index\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with the last
character and applying [operation] from right to left\n * to
each character with its index in the original char sequence and current accumulator value.\n * \n * Returns `null` if
the char sequence is empty.\n * \n * @param [operation] function that takes the index of a character, the character
itself and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceRightOrNull\n */\n@SinceKotlin("1.4")\npublic inline fun
CharSequence.reduceRightIndexedOrNull(operation: (index: Int, Char, acc: Char) -> Char): Char? {\n  var index =
lastIndex\n  if (index < 0) return null\n  var accumulator = get(index--)\n  while (index >= 0) {\n
accumulator = operation(index, get(index), accumulator)\n    --index\n  }\n  return accumulator\n}\n\n/**\n *
Accumulates value starting with the last character and applying [operation] from right to left\n * to each character
and current accumulator value.\n * \n * Returns `null` if the char sequence is empty.\n * \n *
@param [operation] function that takes a character and current accumulator value,\n * and calculates the next
accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n
*/\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun
CharSequence.reduceRightOrNull(operation: (Char, acc: Char) -> Char): Char? {\n  var index = lastIndex\n  if
(index < 0) return null\n  var accumulator = get(index--)\n  while (index >= 0) {\n    accumulator =
operation(get(index--), accumulator)\n  }\n  return accumulator\n}\n\n/**\n * Returns a list containing successive
accumulation values generated by applying [operation] from left to right\n * to each character and current
accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should
not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation]
function that takes
current accumulator value and a character, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin("1.4")\npublic inline fun <R>
CharSequence.runningFold(initial: R, operation: (acc: R, Char) -> R): List<R> {\n  if (isEmpty()) return
listOf(initial)\n  val result = ArrayList<R>(length + 1).apply { add(initial) }\n  var accumulator = initial\n  for
(element in this) {\n    accumulator = operation(accumulator, element)\n    result.add(accumulator)\n  }\n
return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying
[operation] from left to right\n * to each character, its index in the original char sequence and current accumulator
value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be
mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation]
function that takes the index of a character, current accumulator value\n * and the character itself, and calculates the
next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n
*/\n@SinceKotlin("1.4")\npublic inline fun <R> CharSequence.runningFoldIndexed(initial: R, operation: (index:
Int, acc: R, Char) -> R): List<R> {\n  if (isEmpty()) return listOf(initial)\n  val result = ArrayList<R>(length +
1).apply { add(initial) }\n  var accumulator = initial\n  for (index in indices) {\n    accumulator =
operation(index, accumulator, this[index])\n    result.add(accumulator)\n  }\n  return result\n}\n\n/**\n *

```

Returns a list containing successive accumulation values generated by applying [operation] from left to right to each character and current accumulator value that starts with the first character of this char sequence. Note that `acc` value passed to [operation] function should not be mutated; otherwise

it would affect the previous value in resulting list. @param [operation] function that takes current accumulator value and a character, and calculates the next accumulator value. @sample

```
samples.collections.Collections.Aggregates.runningReduce\n *^@SinceKotlin("1.4")\npublic inline fun CharSequence.runningReduce(operation: (acc: Char, Char) -> Char): List<Char> {\n    if (isEmpty()) return emptyList()\n    var accumulator = this[0]\n    val result = ArrayList<Char>(length).apply { add(accumulator) }\n    for (index in 1 until length) {\n        accumulator = operation(accumulator, this[index])\n        result.add(accumulator)\n    }\n    return result\n}
```

Returns a list containing successive accumulation values generated by applying [operation] from left to right to each character, its index in the original char sequence and current accumulator value that starts with the first character of this char sequence. Note that `acc` value passed

to [operation] function should not be mutated; otherwise it would affect the previous value in resulting list. @param [operation] function that takes the index of a character, current accumulator value and the character itself, and calculates the next accumulator value. @sample

```
samples.collections.Collections.Aggregates.runningReduce\n *^@SinceKotlin("1.4")\npublic inline fun CharSequence.runningReduceIndexed(operation: (index: Int, acc: Char, Char) -> Char): List<Char> {\n    if (isEmpty()) return emptyList()\n    var accumulator = this[0]\n    val result = ArrayList<Char>(length).apply { add(accumulator) }\n    for (index in 1 until length) {\n        accumulator = operation(index, accumulator, this[index])\n        result.add(accumulator)\n    }\n    return result\n}
```

Returns a list containing successive accumulation values generated by applying [operation] from left to right to each character and current accumulator value that starts with

[initial] value. Note that `acc` value passed to [operation] function should not be mutated; otherwise it would affect the previous value in resulting list. @param [operation] function that takes current accumulator value and a character, and calculates the next accumulator value. @sample

```
samples.collections.Collections.Aggregates.scan\n *^@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <R> CharSequence.scan(initial: R, operation: (acc: R, Char) -> R): List<R> {\n    return runningFold(initial, operation)\n}
```

Returns a list containing successive accumulation values generated by applying [operation] from left to right to each character, its index in the original char sequence and current accumulator value that starts with [initial] value. Note that `acc` value passed to [operation] function should not be mutated; otherwise it would affect the previous value in resulting list.

@param [operation] function that takes the index of a character, current accumulator value and the character itself, and calculates the next accumulator value. @sample

```
samples.collections.Collections.Aggregates.scan\n *^@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <R> CharSequence.scanIndexed(initial: R, operation: (index: Int, acc: R, Char) -> R): List<R> {\n    return runningFoldIndexed(initial, operation)\n}
```

Returns the sum of all values produced by [selector] function applied to each character in the char sequence. @Deprecated("Use sumOf instead.",

```
ReplaceWith("this.sumOf(selector)"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline fun CharSequence.sumBy(selector: (Char) -> Int): Int {\n    var sum: Int = 0\n    for (element in this) {\n        sum += selector(element)\n    }\n    return sum\n}
```

Returns the sum of all values produced by [selector] function applied to each character

in the char sequence. @Deprecated("Use sumOf instead.", ReplaceWith("this.sumOf(selector)"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline fun CharSequence.sumByDouble(selector: (Char) -> Double): Double {\n var sum: Double = 0.0\n for (element in this) {\n sum += selector(element)\n }\n return sum\n}

Returns the sum of all values produced by

```

[selector] function applied to each character in the char sequence.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfDouble")\n@kotlin.internal.InlineOnly\npublic inline fun
CharSequence.sumOf(selector: (Char) -> Double): Double {\n    var sum: Double = 0.toDouble()\n    for (element in
this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each character in the char sequence.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfInt")\n@kotlin.internal.InlineOnly\npublic
inline fun CharSequence.sumOf(selector: (Char) -> Int): Int {\n    var sum: Int = 0.toInt()\n    for (element in this)
{\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each character in the char sequence.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfLong")\n@kotlin.internal.InlineOnly\npublic inline fun
CharSequence.sumOf(selector: (Char) -> Long): Long {\n    var sum: Long = 0.toLong()\n    for (element in this) {\n
        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each character in the char sequence.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfUInt")\n@WasExperimental(ExperimentalUnsignedType
s::class)\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.sumOf(selector: (Char) -> UInt): UInt {\n
    var sum: UInt = 0.toUInt()\n    for (element in this) {\n        sum += selector(element)\n    }\n    return
sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each character in the char
sequence.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfULong")\n@WasExperimental(ExperimentalUnsignedType
s::class)\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.sumOf(selector: (Char) -> ULong):
ULong {\n    var sum: ULong = 0.toULong()\n    for (element in this) {\n        sum += selector(element)\n    }\n
return
sum\n}\n\n/**\n * Splits this char sequence into a list of strings each not exceeding the given [size].\n * \n * The
last string in the resulting list may have fewer characters than the given [size].\n * \n * @param size the number of
elements to take in each string, must be positive and can be greater than the number of elements in this char
sequence.\n * \n * @sample samples.text.Strings.chunked\n *\n@SinceKotlin("1.2")\npublic fun
CharSequence.chunked(size: Int): List<String> {\n    return windowed(size, size, partialWindows =
true)\n}\n\n/**\n * Splits this char sequence into several char sequences each not exceeding the given [size]\n * and
applies the given [transform] function to an each.\n * \n * @return list of results of the [transform] applied to an
each char sequence.\n * \n * Note that the char sequence passed to the [transform] function is ephemeral and is valid
only inside that function.\n * You should not store it or allow it to escape in some way, unless you made a
snapshot of it.\n * The last char sequence may have fewer characters than the given [size].\n * \n * @param size the
number of elements to take in each char sequence, must be positive and can be greater than the number of elements
in this char sequence.\n * \n * @sample samples.text.Strings.chunkedTransform\n
*\n@SinceKotlin("1.2")\npublic fun <R> CharSequence.chunked(size: Int, transform: (CharSequence) -> R):
List<R> {\n    return windowed(size, size, partialWindows = true, transform = transform)\n}\n\n/**\n * Splits this
char sequence into a sequence of strings each not exceeding the given [size].\n * \n * The last string in the resulting
sequence may have fewer characters than the given [size].\n * \n * @param size the number of elements to take in
each string, must be positive and can be greater than the number of elements in this char sequence.\n * \n * @sample
samples.collections.Collections.Transformations.chunked\n *\n@SinceKotlin("1.2")\npublic fun
CharSequence.chunkedSequence(size:
Int): Sequence<String> {\n    return chunkedSequence(size) { it.toString() }\n}\n\n/**\n * Splits this char sequence
into several char sequences each not exceeding the given [size]\n * and applies the given [transform] function to an

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each.\n \* \n \* @return sequence of results of the [transform] applied to an each char sequence.\n \* \n \* Note that the char sequence passed to the [transform] function is ephemeral and is valid only inside that function.\n \* You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n \* The last char sequence may have fewer characters than the given [size].\n \* \n \* @param size the number of elements to take in each char sequence, must be positive and can be greater than the number of elements in this char sequence.\n \* \n \* @sample samples.text.Strings.chunkedTransformToSequence\n \* \n \* @SinceKotlin("1.2")\n \* public fun <R> CharSequence.chunkedSequence(size: Int, transform: (CharSequence) -> R): Sequence<R> {\n \* \n \* \n \* return windowedSequence(size, size, partialWindows = true, transform = transform)\n \* }\n \* \n \* Splits the original char sequence into pair of char sequences,\n \* where \*first\* char sequence contains characters for which [predicate] yielded `true`,\n \* while \*second\* char sequence contains characters for which [predicate] yielded `false`.\n \* \n \* @sample samples.text.Strings.partition\n \* \n \* public inline fun CharSequence.partition(predicate: (Char) -> Boolean): Pair<CharSequence, CharSequence> {\n \* \n \* \n \* val first = StringBuilder()\n \* \n \* val second = StringBuilder()\n \* \n \* for (element in this) {\n \* \n \* \n \* if (predicate(element)) {\n \* \n \* \n \* first.append(element)\n \* \n \* \n \* } else {\n \* \n \* \n \* second.append(element)\n \* \n \* \n \* }\n \* \n \* }\n \* \n \* return Pair(first, second)\n \* }\n \* \n \* Splits the original string into pair of strings,\n \* where \*first\* string contains characters for which [predicate] yielded `true`,\n \* while \*second\* string contains characters for which [predicate] yielded `false`.\n \* \n \* @sample samples.text.Strings.partition\n \* \n \* public inline fun String.partition(predicate: (Char) -> Boolean): Pair<String, String> {\n \* \n \* \n \* val first = StringBuilder()\n \* \n \* val second = StringBuilder()\n \* \n \* for (element in this) {\n \* \n \* \n \* if (predicate(element)) {\n \* \n \* \n \* first.append(element)\n \* \n \* \n \* } else {\n \* \n \* \n \* second.append(element)\n \* \n \* \n \* }\n \* \n \* }\n \* \n \* return Pair(first.toString(), second.toString())\n \* }\n \* \n \* Returns a list of snapshots of the window of the given [size]\n \* sliding along this char sequence with the given [step], where each\n \* snapshot is a string.\n \* \n \* Several last strings may have fewer characters than the given [size].\n \* \n \* Both [size] and [step] must be positive and can be greater than the number of elements in this char sequence.\n \* \n \* @param size the number of elements to take in each window\n \* @param step the number of elements to move the window forward by on an each step, by default 1\n \* @param partialWindows controls whether or not to keep partial windows in the end if any,\n \* by default `false` which means partial windows won't be preserved\n \* \n \* @sample samples.collections.Sequences.Transformations.takeWindows\n \* \n \* @SinceKotlin("1.2")\n \* public fun CharSequence.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false): List<String> {\n \* \n \* \n \* return windowed(size, step, partialWindows) { it.toString() }\n \* }\n \* \n \* Returns a list of results of applying the given [transform] function to\n \* an each char sequence representing a view over the window of the given [size]\n \* sliding along this char sequence with the given [step].\n \* \n \* Note that the char sequence passed to the [transform] function is ephemeral and is valid only inside that function.\n \* You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n \* Several last char sequences may have fewer characters than the given [size].\n \* \n \* Both [size] and [step] must be positive and can be greater than the number of elements in this char sequence.\n \* \n \* @param size the number of elements to take in each window\n \* @param step the number of elements to move the window forward by on an each step, by default 1\n \* @param partialWindows controls whether or not to keep partial windows in the end if any,\n \* by default `false` which means partial windows won't be preserved\n \* \n \* @sample samples.collections.Sequences.Transformations.averageWindows\n \* \n \* @SinceKotlin("1.2")\n \* public fun <R> CharSequence.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false, transform: (CharSequence) -> R): List<R> {\n \* \n \* \n \* \n \* checkWindowSizeStep(size, step)\n \* \n \* val thisSize = this.length\n \* \n \* val resultCapacity = thisSize / step + if (thisSize % step == 0) 0 else 1\n \* \n \* val result = ArrayList<R>(resultCapacity)\n \* \n \* var index = 0\n \* \n \* while (index in 0 until thisSize) {\n \* \n \* \n \* \n \* val end = index + size\n \* \n \* val coercedEnd = if (end < 0 || end > thisSize) {\n \* \n \* \n \* if (partialWindows)\n \* \n \* \n \* thisSize else break\n \* \n \* \n \* } else end\n \* \n \* result.add(transform(subSequence(index, coercedEnd)))\n \* \n \* index += step\n \* \n \* }\n \* \n \* return result\n \* }\n \* \n \* Returns a sequence of snapshots of the window of the given [size]\n \* sliding along this char sequence with the given [step], where each\n \* snapshot is a string.\n \* \n \* Several last strings may have fewer characters than the given [size].\n \* \n \* Both [size] and [step] must be positive and can be greater than the



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number of elements in this char sequence.\n * @param size the number of elements to take in each window\n *
@param step the number of elements to move the window forward by on an each step, by default 1\n * @param
partialWindows controls whether or not to keep partial windows in the end if any,\n * by default `false` which
means partial windows won't be preserved\n * \n * @sample
samples.collections.Sequences.Transformations.takeWindows\n *^\n@SinceKotlin("1.2")\npublic fun
CharSequence.windowedSequence(size: Int,
    step: Int = 1, partialWindows: Boolean = false): Sequence<String> {\n    return windowedSequence(size, step,
partialWindows) { it.toString() }\n}\n\n/**\n * Returns a sequence of results of applying the given [transform]
function to\n * an each char sequence representing a view over the window of the given [size]\n * sliding along this
char sequence with the given [step].\n * \n * Note that the char sequence passed to the [transform] function is
ephemeral and is valid only inside that function.\n * You should not store it or allow it to escape in some way,
unless you made a snapshot of it.\n * Several last char sequences may have fewer characters than the given [size].\n
*\n * Both [size] and [step] must be positive and can be greater than the number of elements in this char sequence.\n
*\n * @param size the number of elements to take in each window\n * @param step the number of elements to move
the window forward by on an each step, by default 1\n * @param partialWindows controls whether
or not to keep partial windows in the end if any,\n * by default `false` which means partial windows won't be
preserved\n * \n * @sample samples.collections.Sequences.Transformations.averageWindows\n
*^\n@SinceKotlin("1.2")\npublic fun <R> CharSequence.windowedSequence(size: Int, step: Int = 1,
partialWindows: Boolean = false, transform: (CharSequence) -> R): Sequence<R> {\n
    checkWindowSizeStep(size, step)\n    val windows = (if (partialWindows) indices else 0 until length - size + 1) step
step\n    return windows.asSequence().map { index ->\n        val end = index + size\n        val coercedEnd = if (end <
0 || end > length) length else end\n        transform(subSequence(index, coercedEnd))\n    }\n}\n\n/**\n * Returns a
list of pairs built from the characters of `this` and the [other] char sequences with the same index\n * The returned
list has length of the shortest char sequence.\n * \n * @sample samples.text.Strings.zip\n *^\npublic infix fun
CharSequence.zip(other: CharSequence):
    List<Pair<Char, Char>> {\n    return zip(other) { c1, c2 -> c1 to c2 }\n}\n\n/**\n * Returns a list of values built
from the characters of `this` and the [other] char sequences with the same index\n * using the provided [transform]
function applied to each pair of characters.\n * The returned list has length of the shortest char sequence.\n * \n *
@sample samples.text.Strings.zipWithTransform\n *^\npublic inline fun <V> CharSequence.zip(other:
CharSequence, transform: (a: Char, b: Char) -> V): List<V> {\n    val length = minOf(this.length, other.length)\n
    val list = ArrayList<V>(length)\n    for (i in 0 until length) {\n        list.add(transform(this[i], other[i]))\n    }\n
    return list\n}\n\n/**\n * Returns a list of pairs of each two adjacent characters in this char sequence.\n * \n * The
returned list is empty if this char sequence contains less than two characters.\n * \n * @sample
samples.collections.Collections.Transformations.zipWithNext\n *^\n@SinceKotlin("1.2")\npublic
fun CharSequence.zipWithNext(): List<Pair<Char, Char>> {\n    return zipWithNext { a, b -> a to b }\n}\n\n/**\n *
Returns a list containing the results of applying the given [transform] function\n * to an each pair of two adjacent
characters in this char sequence.\n * \n * The returned list is empty if this char sequence contains less than two
characters.\n * \n * @sample samples.collections.Collections.Transformations.zipWithNextToFindDeltas\n
*^\n@SinceKotlin("1.2")\npublic inline fun <R> CharSequence.zipWithNext(transform: (a: Char, b: Char) -> R):
List<R> {\n    val size = length - 1\n    if (size < 1) return emptyList()\n    val result = ArrayList<R>(size)\n    for
(index in 0 until size) {\n        result.add(transform(this[index], this[index + 1]))\n    }\n    return result\n}\n\n/**\n *
Creates an [Iterable] instance that wraps the original char sequence returning its characters when being iterated.\n
*\n *^\npublic fun CharSequence.asIterable(): Iterable<Char> {\n
    if (this is String && isEmpty()) return emptyList()\n    return Iterable { this.iterator() }\n}\n\n/**\n * Creates a
[Sequence] instance that wraps the original char sequence returning its characters when being iterated.\n *^\npublic
fun CharSequence.asSequence(): Sequence<Char> {\n    if (this is String && isEmpty()) return emptySequence()\n
    return Sequence { this.iterator() }\n}\n\n"/>\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the

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license/LICENSE.txt file.\n

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*\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("StringsKt")\n\npackage\nkotlin.text\n\nimport kotlin.contracts.contract\nimport kotlin.jvm.JvmName\n\n/**\n * Returns a copy of this string\n converted to upper case using the rules of the default locale.\n */\n@Deprecated("Use uppercase() instead.",\nReplaceWith("uppercase()"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic\nexpect fun String.toUpperCase(): String\n\n/**\n * Returns a copy of this string converted to upper case using\n Unicode mapping rules of the invariant locale.\n */\n * This function supports one-to-many and many-to-one\n character mapping,\n * thus the length of the returned string can be different from the length of the original string.\n */\n * @sample samples.text.Strings.uppercase\n\n*\n\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun\nString.uppercase(): String\n\n/**\n * Returns a copy of this string converted to lower case using the rules of the\n default locale.\n */\n@Deprecated("Use lowercase() instead.",\nReplaceWith("lowercase()"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic expect fun\nString.toLowerCase(): String\n\n/**\n * Returns a copy of this string converted to lower case using Unicode\n mapping rules of the invariant locale.\n */\n * This function supports one-to-many and many-to-one character\n mapping,\n * thus the\n length of the returned string can be different from the length of the original string.\n */\n * @sample\n samples.text.Strings.lowercase\n\n*\n\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun\nString.lowercase(): String\n\n/**\n * Returns a copy of this string having its first letter titlecased using the rules of\n the default locale,\n * or the original string if it's empty or already starts with a title case letter.\n */\n * The title case\n of a character is usually the same as its upper case with several exceptions.\n * The particular list of characters with\n the special title case form depends on the underlying platform.\n */\n * @sample samples.text.Strings.capitalize\n\n*\n\n@Deprecated("Use replaceFirstChar instead.", ReplaceWith("replaceFirstChar { if (it.isLowerCase())\nit.titlecase() else it.toString() }"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic expect fun\nString.capitalize(): String\n\n/**\n * Returns a copy of this string having\n its first letter lowercased using the rules of the default locale,\n * or the original string if it's empty or already starts\n with a lower case letter.\n */\n * @sample samples.text.Strings.decapitalize\n\n*\n\n@Deprecated("Use\nreplaceFirstChar instead.", ReplaceWith("replaceFirstChar { it.lowercase()\n}"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic expect fun String.decapitalize(): String\n\n/**\n * Returns a sub sequence of this char sequence having leading and trailing characters matching the [predicate]\n removed.\n */\n\npublic inline fun CharSequence.trim(predicate: (Char) -> Boolean): CharSequence {\n    var\n    startIndex = 0\n    var endIndex = length - 1\n    var startFound = false\n\n    while (startIndex <= endIndex) {\n        val index = if (!startFound) startIndex else endIndex\n        val match = predicate(this[index])\n\n        if\n        (!startFound) {\n            if (!match)\n                startFound = true\n            else\n                startIndex += 1\n        }\n        else {\n            if (!match)\n                break\n            else\n                endIndex -= 1\n        }\n    }\n\n    return\n    subSequence(startIndex, endIndex + 1)\n}\n\n/**\n * Returns a string having leading and trailing characters\n matching the [predicate] removed.\n */\n\npublic inline fun String.trim(predicate: (Char) -> Boolean): String =\n    (this as CharSequence).trim(predicate).toString()\n\n/**\n * Returns a sub sequence of this char sequence having\n leading characters matching the [predicate] removed.\n */\n\npublic inline fun CharSequence.trimStart(predicate:\n(Char) -> Boolean): CharSequence {\n    for (index in this.indices)\n        if (!predicate(this[index]))\n            return\n            subSequence(index, length)\n}\n\n/**\n * Returns a string having leading characters matching the\n [predicate] removed.\n */\n\npublic inline fun String.trimStart(predicate: (Char) -> Boolean): String =\n    (this as\n    CharSequence).trimStart(predicate).toString()\n\n/**\n * Returns a sub sequence of this char sequence having trailing characters matching the [predicate] removed.\n */\n\npublic inline fun CharSequence.trimEnd(predicate: (Char) -> Boolean): CharSequence {\n    for (index in\n    this.indices.reversed())\n        if (!predicate(this[index]))\n            return\n            subSequence(0, index + 1)\n}\n\n/**\n * Returns a string having trailing characters matching the [predicate] removed.\n */\n\npublic inline
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fun String.trimEnd(predicate: (Char) -> Boolean): String =\n    (this as
CharSequence).trimEnd(predicate).toString()\n\n/**\n * Returns a sub sequence of this char sequence having
leading and trailing characters from the [chars] array removed.\n */\npublic fun CharSequence.trim(vararg chars:
Char): CharSequence = trim { it in chars }\n\n/**\n * Returns a string having leading and trailing characters from
the [chars] array removed.\n */\npublic fun String.trim(vararg chars: Char): String = trim { it in chars }\n\n/**\n *
Returns a sub
sequence of this char sequence having leading characters from the [chars] array removed.\n */\npublic fun
CharSequence.trimStart(vararg chars: Char): CharSequence = trimStart { it in chars }\n\n/**\n * Returns a string
having leading characters from the [chars] array removed.\n */\npublic fun String.trimStart(vararg chars: Char):
String = trimStart { it in chars }\n\n/**\n * Returns a sub sequence of this char sequence having trailing characters
from the [chars] array removed.\n */\npublic fun CharSequence.trimEnd(vararg chars: Char): CharSequence =
trimEnd { it in chars }\n\n/**\n * Returns a string having trailing characters from the [chars] array removed.\n
*/\n\n/**\n * Returns a sub
sequence of this char sequence having leading and trailing whitespace removed.\n */\npublic fun
CharSequence.trim(): CharSequence = trim(Char::isWhitespace)\n\n/**\n * Returns a string having leading and
trailing whitespace
removed.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.trim(): String = (this as
CharSequence).trim().toString()\n\n/**\n * Returns a sub sequence of this char sequence having leading whitespace
removed.\n */\npublic fun CharSequence.trimStart(): CharSequence = trimStart(Char::isWhitespace)\n\n/**\n *
Returns a string having leading whitespace removed.\n */\n@kotlin.internal.InlineOnly\npublic inline fun
String.trimStart(): String = (this as CharSequence).trimStart().toString()\n\n/**\n * Returns a sub sequence of this
char sequence having trailing whitespace removed.\n */\npublic fun CharSequence.trimEnd(): CharSequence =
trimEnd(Char::isWhitespace)\n\n/**\n * Returns a string having trailing whitespace removed.\n
*/\n\n/**\n * Returns a char sequence with content of this char sequence padded at
the beginning\n * to the specified [length] with the specified
character or space.\n * @param length the desired string length.\n * @param padChar the character to pad
string with, if it has length less than the [length] specified. Space is used by default.\n * @return Returns a char
sequence of length at least [length] consisting of `this` char sequence prepended with [padChar] as many times\n *
as are necessary to reach that length.\n * @sample samples.text.Strings.padStart\n */\npublic fun
CharSequence.padStart(length: Int, padChar: Char = ' '): CharSequence {\n    if (length < 0)\n        throw
IllegalArgumentException("Desired length $length is less than zero.")\n    if (length <= this.length)\n        return
this.subSequence(0, this.length)\n    val sb = StringBuilder(length)\n    for (i in 1..(length - this.length))\n        sb.append(padChar)\n    sb.append(this)\n    return sb\n}\n\n/**\n * Pads the string to the specified [length] at the
beginning with the specified character or space.\n * @param length the desired string
length.\n * @param padChar the character to pad string with, if it has length less than the [length] specified. Space
is used by default.\n * @return Returns a string of length at least [length] consisting of `this` string prepended
with [padChar] as many times\n * as are necessary to reach that length.\n * @sample samples.text.Strings.padStart\n
*/\npublic fun String.padStart(length: Int, padChar: Char = ' '): String =\n    (this as CharSequence).padStart(length,
padChar).toString()\n\n/**\n * Returns a char sequence with content of this char sequence padded at the end\n * to
the specified [length] with the specified character or space.\n * @param length the desired string length.\n *
@param padChar the character to pad string with, if it has length less than the [length] specified. Space is used by
default.\n * @return Returns a char sequence of length at least [length] consisting of `this` char sequence appended
with [padChar] as many times\n * as are necessary to reach that
length.\n * @sample samples.text.Strings.padEnd\n */\npublic fun CharSequence.padEnd(length: Int, padChar:
Char = ' '): CharSequence {\n    if (length < 0)\n        throw IllegalArgumentException("Desired length $length is
less than zero.")\n    if (length <= this.length)\n        return this.subSequence(0, this.length)\n    val sb =
StringBuilder(length)\n    sb.append(this)\n    for (i in 1..(length - this.length))\n        sb.append(padChar)\n    return

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sb\n}\n\n/**\n * Pads the string to the specified [length] at the end with the specified character or space.\n *\n *
@param length the desired string length.\n * @param padChar the character to pad string with, if it has length less
than the [length] specified. Space is used by default.\n * @return Returns a string of length at least [length]
consisting of `this` string appended with [padChar] as many times\n * as are necessary to reach that length.\n *
@sample samples.text.Strings.padEnd\n */\npublic fun String.padEnd(length:
Int, padChar: Char = ' '): String =\n (this as CharSequence).padEnd(length, padChar).toString()\n\n/**\n * Returns
`true` if this nullable char sequence is either `null` or empty.\n *\n * @sample
samples.text.Strings.stringIsNullOrEmpty\n */\n@kotlin.internal.InlineOnly\npublic inline fun
CharSequence?.isNullOrEmpty(): Boolean {\n contract {\n returns(false) implies (this@isNullOrEmpty !=
null)\n }\n\n return this == null || this.length == 0\n}\n\n/**\n * Returns `true` if this char sequence is empty
(contains no characters).\n *\n * @sample samples.text.Strings.stringIsEmpty\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.isEmpty(): Boolean = length == 0\n\n/**\n *
Returns `true` if this char sequence is not empty.\n *\n * @sample samples.text.Strings.stringIsNotEmpty\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.isNotEmpty(): Boolean = length > 0\n\n//
implemented differently in JVM and JS\n/public fun String.isBlank(): Boolean
= length() == 0 || all { it.isWhitespace() }\n\n/**\n * Returns `true` if this char sequence is not empty and contains
some characters except of whitespace characters.\n *\n * @sample samples.text.Strings.stringIsNotBlank\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.isNotBlank(): Boolean = !isBlank()\n\n/**\n *
Returns `true` if this nullable char sequence is either `null` or empty or consists solely of whitespace characters.\n
*\n * @sample samples.text.Strings.stringIsNullOrBlank\n */\n@kotlin.internal.InlineOnly\npublic inline fun
CharSequence?.isNullOrBlank(): Boolean {\n contract {\n returns(false) implies (this@isNullOrBlank !=
null)\n }\n\n return this == null || this.isBlank()\n}\n\n/**\n * Iterator for characters of the given char sequence.\n
*/\npublic operator fun CharSequence.iterator(): CharIterator = object : CharIterator() {\n private var index = 0\n\n
public override fun nextChar(): Char = get(index++)\n\n public override
fun hasNext(): Boolean = index < length\n}\n\n/**\n * Returns the string if it is not `null`, or the empty string
otherwise.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String?.orEmpty(): String = this ?: ""\n\n/**\n *
Returns this char sequence if it's not empty\n * or the result of calling [defaultValue] function if the char sequence is
empty.\n *\n * @sample samples.text.Strings.stringIfEmpty\n
*/\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline fun <C, R> C.ifEmpty(defaultValue: () ->
R): R where C : CharSequence, C : R =\n if (isEmpty()) defaultValue() else this\n\n/**\n * Returns this char
sequence if it is not empty and doesn't consist solely of whitespace characters,\n * or the result of calling
[defaultValue] function otherwise.\n *\n * @sample samples.text.Strings.stringIfNotBlank\n
*/\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline fun <C, R> C.ifBlank(defaultValue: () -> R):
R where C : CharSequence, C : R =\n if (isBlank()) defaultValue()
else this\n\n/**\n * Returns the range of valid character indices for this char sequence.\n */\npublic val
CharSequence.indices: IntRange\n get() = 0..length - 1\n\n/**\n * Returns the index of the last character in the
char sequence or -1 if it is empty.\n */\npublic val CharSequence.lastIndex: Int\n get() = this.length - 1\n\n/**\n *
Returns `true` if this CharSequence has Unicode surrogate pair at the specified [index].\n */\npublic fun
CharSequence.hasSurrogatePairAt(index: Int): Boolean {\n return index in 0..length - 2\n &&
this[index].isHighSurrogate()\n && this[index + 1].isLowSurrogate()\n}\n\n/**\n * Returns a substring
specified by the given [range] of indices.\n */\npublic fun String.substring(range: IntRange): String =
substring(range.start, range.endInclusive + 1)\n\n/**\n * Returns a subsequence of this char sequence specified by
the given [range] of indices.\n */\npublic fun CharSequence.subSequence(range: IntRange): CharSequence
= subSequence(range.start, range.endInclusive + 1)\n\n/**\n * Returns a subsequence of this char sequence.\n *\n *
This extension is chosen only for invocation with old-named parameters.\n * Replace parameter names with the
same as those of [CharSequence.subSequence].\n
*/\n@kotlin.internal.InlineOnly\n@Suppress("EXTENSION_SHADOWED_BY_MEMBER") // false
warning\n@Deprecated("Use parameters named startIndex and endIndex.", ReplaceWith("subSequence(startIndex

```

```

= start, endIndex = end)\n)\npublic inline fun String.subSequence(start: Int, end: Int): CharSequence =
subSequence(start, end)\n\n/**\n * Returns a substring of chars from a range of this char sequence starting at the
[startIndex] and ending right before the [endIndex].\n * \n * @param startIndex the start index (inclusive).\n *
@param endIndex the end index (exclusive). If not specified, the length of the char sequence is used.\n
*\n * @kotlin.internal.InlineOnly\npublic inline fun CharSequence.substring(startIndex: Int, endIndex:
Int = length): String = subSequence(startIndex, endIndex).toString()\n\n/**\n * Returns a substring of chars at
indices from the specified [range] of this char sequence.\n * \npublic fun CharSequence.substring(range: IntRange):
String = subSequence(range.start, range.endInclusive + 1).toString()\n\n/**\n * Returns a substring before the first
occurrence of [delimiter].\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which
defaults to the original string.\n * \npublic fun String.substringBefore(delimiter: Char, missingDelimiterValue:
String = this): String {\n    val index = indexOf(delimiter)\n    return if (index == -1) missingDelimiterValue else
substring(0, index)\n}\n\n/**\n * Returns a substring before the first occurrence of [delimiter].\n * If the string does
not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n * \npublic fun
String.substringBefore(delimiter: String, missingDelimiterValue: String
= this): String {\n    val index = indexOf(delimiter)\n    return if (index == -1) missingDelimiterValue else
substring(0, index)\n}\n\n/**\n * Returns a substring after the first occurrence of [delimiter].\n * If the string does
not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n * \npublic fun
String.substringAfter(delimiter: Char, missingDelimiterValue: String = this): String {\n    val index =
indexOf(delimiter)\n    return if (index == -1) missingDelimiterValue else substring(index + 1, length)\n}\n\n/**\n *
Returns a substring after the first occurrence of [delimiter].\n * If the string does not contain the delimiter, returns
[missingDelimiterValue] which defaults to the original string.\n * \npublic fun String.substringAfter(delimiter:
String, missingDelimiterValue: String = this): String {\n    val index = indexOf(delimiter)\n    return if (index == -1)
missingDelimiterValue else substring(index + delimiter.length, length)\n}\n\n/**\n * Returns a substring before the last
occurrence of [delimiter].\n * If the string does not contain the delimiter,
returns [missingDelimiterValue] which defaults to the original string.\n * \npublic fun
String.substringBeforeLast(delimiter: Char, missingDelimiterValue: String = this): String {\n    val index =
lastIndexOf(delimiter)\n    return if (index == -1) missingDelimiterValue else substring(0, index)\n}\n\n/**\n *
Returns a substring before the last occurrence of [delimiter].\n * If the string does not contain the delimiter, returns
[missingDelimiterValue] which defaults to the original string.\n * \npublic fun String.substringBeforeLast(delimiter:
String, missingDelimiterValue: String = this): String {\n    val index = lastIndexOf(delimiter)\n    return if (index ==
-1) missingDelimiterValue else substring(0, index)\n}\n\n/**\n * Returns a substring after the last occurrence of
[delimiter].\n * If the string does not contain the delimiter, returns [missingDelimiterValue]
which defaults to the original string.\n * \npublic fun String.substringAfterLast(delimiter: Char,
missingDelimiterValue: String = this): String {\n    val index = lastIndexOf(delimiter)\n    return if (index == -1)
missingDelimiterValue else substring(index + 1, length)\n}\n\n/**\n * Returns a substring after the last occurrence
of [delimiter].\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the
original string.\n * \npublic fun String.substringAfterLast(delimiter: String, missingDelimiterValue: String = this):
String {\n    val index = lastIndexOf(delimiter)\n    return if (index == -1) missingDelimiterValue else
substring(index + delimiter.length, length)\n}\n\n/**\n * Returns a char sequence with content of this char sequence
where its part at the given range\n * is replaced with the [replacement] char sequence.\n * @param startIndex the
index of the first character to be replaced.\n * @param endIndex the index of the first character
after the replacement to keep in the string.\n * \npublic fun CharSequence.replaceRange(startIndex: Int, endIndex:
Int, replacement: CharSequence): CharSequence {\n    if (endIndex < startIndex)\n        throw
IndexOutOfBoundsException("End index ($endIndex) is less than start index ($startIndex).")\n    val sb =
StringBuilder()\n    sb.appendRange(this, 0, startIndex)\n    sb.append(replacement)\n    sb.appendRange(this,
endIndex, length)\n    return sb\n}\n\n/**\n * Replaces the part of the string at the given range with the
[replacement] char sequence.\n * @param startIndex the index of the first character to be replaced.\n * @param
endIndex the index of the first character after the replacement to keep in the string.\n

```

```

*  

@kotlin.internal.InlineOnly  

public inline fun String.replaceRange(startIndex: Int, endIndex: Int, replacement: CharSequence): String =  

    (this as CharSequence).replaceRange(startIndex, endIndex, replacement).toString()  

    * Returns a char sequence with content of this char sequence where its part at the given [range] is replaced with the [replacement] char sequence.  

    * The end index of the [range] is included in the part to be replaced.  

public fun CharSequence.replaceRange(range: IntRange, replacement: CharSequence): CharSequence =  

    replaceRange(range.start, range.endInclusive + 1, replacement)  

    * Replace the part of string at the given [range] with the [replacement] string.  

    * The end index of the [range] is included in the part to be replaced.  

*  

@kotlin.internal.InlineOnly  

public inline fun String.removeRange(startIndex: Int, endIndex: Int): String =  

    (this as CharSequence).removeRange(startIndex, endIndex).toString()  

    * Returns a char sequence with content of this char sequence where its part at the given range is removed.  

    * @param startIndex the index of the first character to be removed.  

    * @param endIndex the index of the first character after the removed part to keep in the string.  

    * [endIndex] is not included in the removed part.  

public fun CharSequence.removeRange(startIndex: Int, endIndex: Int): CharSequence {  

    if (endIndex < startIndex) throw IndexOutOfBoundsException("End index ($endIndex) is less than start index ($startIndex).")  

    if (endIndex == startIndex) return this.subSequence(0, length)  

    val sb = StringBuilder(length - (endIndex - startIndex))  

    sb.appendRange(this, 0, startIndex)  

    sb.appendRange(this, endIndex, length)  

    return sb  

}
    * Removes the part of a string at a given range.  

    * @param startIndex the index of the first character to be removed.  

    * @param endIndex the index of the first character after the removed part to keep in the string.  

    * [endIndex] is not included in the removed part.  

@kotlin.internal.InlineOnly  

public inline fun String.removeRange(range: IntRange): String =  

    (this as CharSequence).removeRange(range.start, range.endInclusive + 1).toString()  

    * Returns a char sequence with content of this char sequence where its part at the given [range] is removed.  

    * The end index of the [range] is included in the removed part.  

public fun CharSequence.removeRange(range: IntRange): CharSequence = removeRange(range.start, range.endInclusive + 1)  

    * Removes the part of a string at the given [range].  

    * The end index of the [range] is included in the removed part.  

@kotlin.internal.InlineOnly  

public inline fun String.removePrefix(prefix: CharSequence): String =  

    (this as CharSequence).removePrefix(prefix).toString()  

    * If this char sequence starts with the given [prefix], returns a new char sequence with the prefix removed. Otherwise, returns a new char sequence with the same characters.  

public fun CharSequence.removePrefix(prefix: CharSequence): CharSequence {  

    if (startsWith(prefix)) return subSequence(prefix.length, length)  

    return this  

}
    * If this string starts with the given [prefix], returns a copy of this string with the prefix removed. Otherwise, returns this string.  

public fun String.removePrefix(prefix: CharSequence): String {  

    if (startsWith(prefix)) return substring(prefix.length)  

    return this  

}
    * If this char sequence ends with the given [suffix], returns a new char sequence with the suffix removed. Otherwise, returns a new char sequence with the same characters.  

public fun CharSequence.removeSuffix(suffix: CharSequence): CharSequence {  

    if (endsWith(suffix)) return subSequence(0, length - suffix.length)  

    return this  

}
    * If this string ends with the given [suffix], returns a copy of this string with the suffix removed. Otherwise, returns this string.  

public fun String.removeSuffix(suffix: CharSequence): String {  

    if (endsWith(suffix)) return substring(0, length - suffix.length)  

    return this  

}
    * When this char sequence starts with the given [prefix] and ends with the given [suffix], returns a new char sequence having both the given [prefix] and [suffix] removed.  

    * Otherwise returns a new char sequence with the same characters.  

public fun CharSequence.removeSurrounding(prefix: CharSequence, suffix: CharSequence): CharSequence {  

    if ((length >= prefix.length + suffix.length) && startsWith(prefix) && endsWith(suffix)) return subSequence(prefix.length, length - suffix.length)  

    return this  

}
    * Removes from a string both the given [prefix] and [suffix] if and only if it starts with the [prefix] and ends with the [suffix].  

    * Otherwise returns this string unchanged.  

public fun String.removeSurrounding(prefix:

```

```

CharSequence, suffix: CharSequence): String {\n  if ((length >= prefix.length + suffix.length) &&
startsWith(prefix) &&
endsWith(suffix)) {\n    return substring(prefix.length, length - suffix.length)\n  }\n  return this\n}\n\n/**\n *
When this char sequence starts with and ends with the given [delimiter],\n * returns a new char sequence having this
[delimiter] removed both from the start and end.\n * Otherwise returns a new char sequence with the same
characters.\n */\npublic fun CharSequence.removeSurrounding(delimiter: CharSequence): CharSequence =
removeSurrounding(delimiter, delimiter)\n\n/**\n * Removes the given [delimiter] string from both the start and the
end of this string\n * if and only if it starts with and ends with the [delimiter].\n * Otherwise returns this string
unchanged.\n */\npublic fun String.removeSurrounding(delimiter: CharSequence): String =
removeSurrounding(delimiter, delimiter)\n\n/**\n * Replace part of string before the first occurrence of given
delimiter with the [replacement] string.\n * If the string does not contain the delimiter, returns
[missingDelimiterValue]
which defaults to the original string.\n */\npublic fun String.replaceBefore(delimiter: Char, replacement: String,
missingDelimiterValue: String = this): String {\n  val index = indexOf(delimiter)\n  return if (index == -1)
missingDelimiterValue else replaceRange(0, index, replacement)\n}\n\n/**\n * Replace part of string before the first
occurrence of given delimiter with the [replacement] string.\n * If the string does not contain the delimiter, returns
[missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.replaceBefore(delimiter:
String, replacement: String, missingDelimiterValue: String = this): String {\n  val index = indexOf(delimiter)\n
return if (index == -1) missingDelimiterValue else replaceRange(0, index, replacement)\n}\n\n/**\n * Replace part
of string after the first occurrence of given delimiter with the [replacement] string.\n * If the string does not contain
the delimiter, returns [missingDelimiterValue] which defaults to the
original string.\n */\npublic fun String.replaceAfter(delimiter: Char, replacement: String, missingDelimiterValue:
String = this): String {\n  val index = indexOf(delimiter)\n  return if (index == -1) missingDelimiterValue else
replaceRange(index + 1, length, replacement)\n}\n\n/**\n * Replace part of string after the first occurrence of given
delimiter with the [replacement] string.\n * If the string does not contain the delimiter, returns
[missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.replaceAfter(delimiter: String,
replacement: String, missingDelimiterValue: String = this): String {\n  val index = indexOf(delimiter)\n  return if
(index == -1) missingDelimiterValue else replaceRange(index + delimiter.length, length, replacement)\n}\n\n/**\n *
Replace part of string after the last occurrence of given delimiter with the [replacement] string.\n * If the string does
not contain the delimiter, returns [missingDelimiterValue] which defaults
to the original string.\n */\npublic fun String.replaceAfterLast(delimiter: Char, replacement: String,
missingDelimiterValue: String = this): String {\n  val index = lastIndexOf(delimiter)\n  return if (index == -1)
missingDelimiterValue else replaceRange(index + delimiter.length, length, replacement)\n}\n\n/**\n * Replace part
of string after the last occurrence of given delimiter with the [replacement] string.\n * If the string does not contain
the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun
String.replaceAfterLast(delimiter: String, replacement: String, missingDelimiterValue: String = this): String {\n  val
index = lastIndexOf(delimiter)\n  return if (index == -1) missingDelimiterValue else replaceRange(index + 1,
length, replacement)\n}\n\n/**\n * Replace part of string before the last occurrence of given delimiter with the
[replacement] string.\n * If the string does not contain the delimiter, returns [missingDelimiterValue]
which defaults to the original string.\n */\npublic fun String.replaceBeforeLast(delimiter: Char, replacement: String,
missingDelimiterValue: String = this): String {\n  val index = lastIndexOf(delimiter)\n  return if (index == -1)
missingDelimiterValue else replaceRange(0, index, replacement)\n}\n\n/**\n * Replace part of string before the last
occurrence of given delimiter with the [replacement] string.\n * If the string does not contain the delimiter, returns
[missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.replaceBeforeLast(delimiter:
String, replacement: String, missingDelimiterValue: String = this): String {\n  val index = lastIndexOf(delimiter)\n
return if (index == -1) missingDelimiterValue else replaceRange(0, index, replacement)\n}\n\n// public fun
String.replace(oldChar: Char, newChar: Char, ignoreCase: Boolean): String // JVM- and JS-specific\n// public fun
String.replace(oldValue: String, newValue: String, ignoreCase:

```

Boolean): String // JVM- and JS-specific

`replace(regex: Regex, replacement: String): String` \* Returns a new string obtained by replacing each substring of this char sequence that matches the given regular expression with the given [replacement]. The [replacement] can consist of any combination of literal text and \$-substitutions. To treat the replacement string literally escape it with the [kotlin.text.Regex.Companion.escapeReplacement] method.

`replace(regex: Regex, replacement: String): String` \* Returns a new string obtained by replacing each substring of this char sequence that matches the given regular expression with the result of the given function [transform] that takes [MatchResult] and returns a string to be used as a replacement for that match.

`replace(regex: Regex, noinline transform: (MatchResult) -> CharSequence): String` \* Replaces the first occurrence of the given regular expression [regex] in this char sequence with specified [replacement] expression. @param replacement A replacement expression that can include substitutions. See [Regex.replaceFirst] for details.

`replaceFirst(regex: Regex, replacement: String): String` \* Returns a copy of this string having its first character replaced with the result of the specified [transform], or the original string if it's empty. @param transform function that takes the first character and returns the result of the transform applied to the character. @sample samples.text.Strings.replaceFirstChar

`replaceFirstChar(transform: (Char) -> Char): String` \* Returns a copy of this string having its first character replaced with the result of the specified [transform], or the original string if it's empty. @param transform function that takes the first character and returns the result of the transform applied to the character. @sample samples.text.Strings.replaceFirstChar

`replaceFirstChar(transform: (Char) -> Char): String` \* Returns a copy of this string having its first character replaced with the result of the specified [transform], or the original string if it's empty. @param transform function that takes the first character and returns the result of the transform applied to the character. @sample samples.text.Strings.replaceFirstChar

`matches(regex: Regex): Boolean` \* Implementation of [regionMatches] for CharSequences. Invoked when it's already known that arguments are not Strings, so that no additional type checks are performed. internal fun CharSequence.regionMatchesImpl(thisOffset: Int, other: CharSequence, otherOffset: Int, length: Int, ignoreCase: Boolean): Boolean { if ((otherOffset < 0) || (thisOffset < 0) || (thisOffset > this.length - length) || (otherOffset > other.length - length)) { return false } for (index in 0 until length) { if (!this[thisOffset + index].equals(other[otherOffset + index], ignoreCase)) { return false } } return true }

`startsWith(char: Char, ignoreCase: Boolean = false): Boolean` \* Returns true if this char sequence starts with the specified character. public fun CharSequence.startsWith(char: Char, ignoreCase: Boolean = false): Boolean { if (this.length > 0 && this[0].equals(char, ignoreCase)) { return true } }

`endsWith(char: Char, ignoreCase: Boolean = false): Boolean` \* Returns true if this char sequence ends with the specified character. public fun CharSequence.endsWith(char: Char, ignoreCase: Boolean = false): Boolean { if (this.length > 0 && this[lastIndex].equals(char, ignoreCase)) { return true } }

`startsWith(prefix: CharSequence, ignoreCase: Boolean = false): Boolean` \* Returns true if this char sequence starts with the specified prefix. public fun CharSequence.startsWith(prefix: CharSequence, ignoreCase: Boolean = false): Boolean { if (!ignoreCase && this is String && prefix is String) { return this.startsWith(prefix) } else { return regionMatchesImpl(0, prefix, 0, prefix.length, ignoreCase) } }

`startsWith(prefix: CharSequence, ignoreCase: Boolean = false): Boolean` \* Returns true if a substring of this char sequence starting at the



```

specified offset [startIndex] starts with the specified prefix.\n */\npublic fun CharSequence.startsWith(prefix:
CharSequence, startIndex: Int, ignoreCase: Boolean = false): Boolean {\n
    if (!ignoreCase && this is String && prefix is String)\n        return this.startsWith(prefix, startIndex)\n    else\n        return regionMatchesImpl(startIndex, prefix, 0, prefix.length, ignoreCase)\n}\n\n/**\n * Returns `true` if this char
sequence ends with the specified suffix.\n */\npublic fun CharSequence.endsWith(suffix: CharSequence,
ignoreCase: Boolean = false): Boolean {\n    if (!ignoreCase && this is String && suffix is String)\n        return
this.endsWith(suffix)\n    else\n        return regionMatchesImpl(length - suffix.length, suffix, 0, suffix.length,
ignoreCase)\n}\n\n// common prefix and suffix\n/**\n * Returns the longest string `prefix` such that this char
sequence and [other] char sequence both start with this prefix,\n * taking care not to split surrogate pairs.\n * If this
and [other] have no common prefix, returns the empty string.\n */\n * @param ignoreCase `true` to ignore character
case when matching a character. By default `false`.\n * @sample samples.text.Strings.commonPrefixWith\n
*/\npublic fun CharSequence.commonPrefixWith(other: CharSequence, ignoreCase: Boolean = false): String {\n
    val shortestLength = minOf(this.length, other.length)\n    var i = 0\n    while (i < shortestLength &&
this[i].equals(other[i], ignoreCase = ignoreCase)) {\n        i++\n    }\n    if (this.hasSurrogatePairAt(i - 1) ||
other.hasSurrogatePairAt(i - 1)) {\n        i--\n    }\n    return subSequence(0, i).toString()\n}\n\n/**\n * Returns the
longest string `suffix` such that this char sequence and [other] char sequence both end with this suffix,\n * taking
care not to split surrogate pairs.\n * If this and [other] have no common suffix, returns the empty string.\n */\n *
@param ignoreCase `true` to ignore character case when matching a character. By default `false`.\n * @sample
samples.text.Strings.commonSuffixWith\n
*/\npublic fun CharSequence.commonSuffixWith(other: CharSequence,
ignoreCase: Boolean = false): String {\n    val thisLength = this.length\n
    val otherLength = other.length\n    val shortestLength = minOf(thisLength, otherLength)\n    var i = 0\n    while
(i < shortestLength && this[thisLength - i - 1].equals(other[otherLength - i - 1], ignoreCase = ignoreCase)) {\n
        i++\n    }\n    if (this.hasSurrogatePairAt(thisLength - i - 1) || other.hasSurrogatePairAt(otherLength - i - 1)) {\n
        i--\n    }\n    return subSequence(thisLength - i, thisLength).toString()\n}\n\n// indexOfAny()\n/**\n * Finds the
index of the first occurrence of any of the specified [chars] in this char sequence,\n * starting from the specified
[startIndex] and optionally ignoring the case.\n */\n * @param ignoreCase `true` to ignore character case when
matching a character. By default `false`.\n * @return An index of the first occurrence of matched character from
[chars] or -1 if none of [chars] are found.\n */\n */\npublic fun CharSequence.indexOfAny(chars: CharArray,
startIndex: Int = 0, ignoreCase: Boolean = false): Int {\n    if
(!ignoreCase && chars.size == 1 && this is String) {\n        val char = chars.single()\n        return
nativeIndexOf(char, startIndex)\n    }\n    for (index in startIndex.coerceAtLeast(0)..lastIndex) {\n        val
charAtIndex = get(index)\n        if (chars.any { it.equals(charAtIndex, ignoreCase) })\n            return index\n    }\n
return -1\n}\n\n/**\n * Finds the index of the last occurrence of any of the specified [chars] in this char sequence,\n
* starting from the specified [startIndex] and optionally ignoring the case.\n */\n * @param startIndex The index of
character to start searching at. The search proceeds backward toward the beginning of the string.\n * @param
ignoreCase `true` to ignore character case when matching a character. By default `false`.\n * @return An index of
the last occurrence of matched character from [chars] or -1 if none of [chars] are found.\n */\n */\npublic fun
CharSequence.lastIndexOfAny(chars: CharArray, startIndex: Int = lastIndex, ignoreCase:
Boolean = false): Int {\n    if (!ignoreCase && chars.size == 1 && this is String) {\n        val char = chars.single()\n
        return nativeLastIndexOf(char, startIndex)\n    }\n    for (index in startIndex.coerceAtMost(lastIndex)
downTo 0) {\n        val charAtIndex = get(index)\n        if (chars.any { it.equals(charAtIndex, ignoreCase) })\n
            return index\n    }\n    return -1\n}\n\nprivate fun CharSequence.indexOf(other: CharSequence, startIndex: Int,
endIndex: Int, ignoreCase: Boolean, last: Boolean = false): Int {\n    val indices = if (!last)\n        startIndex.coerceAtLeast(0)..endIndex.coerceAtMost(length)\n    else\n        startIndex.coerceAtMost(lastIndex)
downTo endIndex.coerceAtLeast(0)\n    if (this is String && other is String) { // smart cast\n        for (index in
indices) {\n            if (other.regionMatches(0, this, index, other.length, ignoreCase))\n                return index\n
        }\n    } else {\n        for (index in indices) {\n

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        if (other.regionMatchesImpl(0, this, index, other.length, ignoreCase))\n            return index\n        }\n    }\n\n    return -1\n}\n\nprivate fun CharSequence.findAnyOf(strings: Collection<String>, startIndex: Int, ignoreCase: Boolean, last: Boolean): Pair<Int, String>? {\n    if (!ignoreCase && strings.size == 1) {\n        val string = strings.single()\n        val index = if (!last) indexOf(string, startIndex) else lastIndexOf(string, startIndex)\n        return if (index < 0) null else index to string\n    }\n\n    val indices = if (!last) startIndex.coerceAtLeast(0).length else startIndex.coerceAtMost(lastIndex) downTo 0\n    if (this is String) {\n        for (index in indices) {\n            val matchingString = strings.firstOrNull { it.regionMatches(0, this, index, it.length, ignoreCase) }\n            if (matchingString != null)\n                return index to matchingString\n        }\n    } else {\n        for (index in indices) {\n            val matchingString = strings.firstOrNull { it.regionMatchesImpl(0, this, index, it.length, ignoreCase) }\n            if (matchingString != null)\n                return index to matchingString\n        }\n    }\n\n    return null\n}\n\n/**\n * Finds the first occurrence of any of the specified [strings] in this char sequence,\n * starting from the specified [startIndex] and optionally ignoring the case.\n * @param ignoreCase `true` to ignore character case when matching a string. By default `false`.\n * @return A pair of an index of the first occurrence of matched string from [strings] and the string matched or `null` if none of [strings] are found.\n * To avoid ambiguous results when strings in [strings] have characters in common, this method proceeds from\n * the beginning to the end of this string, and finds at each position the first element in [strings]\n * that matches this string at that position.\n */\n\npublic fun CharSequence.findAnyOf(strings: Collection<String>, startIndex: Int = 0, ignoreCase: Boolean = false): Pair<Int, String>? =\n    findAnyOf(strings, startIndex, ignoreCase, last = false)\n\n/**\n * Finds the last occurrence of any of the specified [strings] in this char sequence,\n * starting from the specified [startIndex] and optionally ignoring the case.\n * @param startIndex The index of character to start searching at. The search proceeds backward toward the beginning of the string.\n * @param ignoreCase `true` to ignore character case when matching a string. By default `false`.\n * @return A pair of an index of the last occurrence of matched string from [strings] and the string matched or `null` if none of [strings] are found.\n * To avoid ambiguous results when strings in [strings] have characters in common, this method proceeds from\n * the end toward the beginning of this string, and finds at each position the first element in [strings]\n * that matches this string at that position.\n */\n\npublic fun CharSequence.findLastAnyOf(strings: Collection<String>, startIndex: Int = lastIndex, ignoreCase: Boolean = false): Pair<Int, String>? =\n    findAnyOf(strings, startIndex, ignoreCase, last = true)\n\n/**\n * Finds the index of the first occurrence of any of the specified [strings] in this char sequence,\n * starting from the specified [startIndex] and optionally ignoring the case.\n * @param ignoreCase `true` to ignore character case when matching a string. By default `false`.\n * @return An index of the first occurrence of matched string from [strings] or -1 if none of [strings] are found.\n * To avoid ambiguous results when strings in [strings] have characters in common, this method proceeds from\n * the beginning to the end of this string, and finds at each position the first element in [strings]\n * that matches this string at that position.\n */\n\npublic fun CharSequence.indexOfAny(strings: Collection<String>, startIndex: Int = 0, ignoreCase: Boolean = false): Int =\n    findAnyOf(strings, startIndex, ignoreCase, last = false)?.first ?: -1\n\n/**\n * Finds the index of the last occurrence of any of the specified [strings] in this char sequence,\n * starting from the specified [startIndex] and optionally ignoring the case.\n * @param startIndex The index of character to start searching at. The search proceeds backward toward the beginning of the string.\n * @param ignoreCase `true` to ignore character case when matching a string. By default `false`.\n * @return An index of the last occurrence of matched string from [strings] or -1 if none of [strings] are found.\n * To avoid ambiguous results when strings in [strings] have characters in common, this method proceeds from\n * the end toward the beginning of this string, and finds at each position the first element in [strings]\n * that matches this string at that position.\n */\n\npublic fun CharSequence.lastIndexOfAny(strings: Collection<String>, startIndex: Int = lastIndex, ignoreCase: Boolean = false): Int =\n    findAnyOf(strings, startIndex, ignoreCase, last = true)?.first ?: -1\n\n/**\n * Returns the index within this string of the first occurrence of the specified character, starting from the specified [startIndex].\n * @param ignoreCase `true` to ignore character case when matching a character. By default `false`.\n * @return An index of the first occurrence

```

```

of [char] or -1 if none is found.\n */\npublic fun CharSequence.indexOf(char: Char, startIndex: Int = 0, ignoreCase: Boolean = false): Int {\n    return if (ignoreCase || this !is String)\n        indexOfAny(charArrayOf(char), startIndex, ignoreCase)\n    else\n        nativeIndexOf(char, startIndex)\n}\n\n/**\n * Returns the index within this char sequence of the first occurrence of the specified [string],\n * starting from the specified [startIndex].\n *\n * @param ignoreCase `true` to ignore character case when matching a string. By default `false`.\n * @return An index of the first occurrence of [string] or -1 if none is found.\n */\n\n * @sample samples.text.Strings.indexOf\n */\npublic fun CharSequence.indexOf(string: String, startIndex: Int = 0, ignoreCase: Boolean = false): Int {\n    return if (ignoreCase || this !is String)\n        indexOf(string, startIndex, length, ignoreCase)\n    else\n        nativeIndexOf(string, startIndex)\n}\n\n/**\n * Returns the index within this char sequence of the last occurrence of the specified character,\n * starting from the specified [startIndex].\n *\n * @param startIndex The index of character to start searching at. The search proceeds backward toward the beginning of the string.\n * @param ignoreCase `true` to ignore character case when matching a character. By default `false`.\n * @return An index of the last occurrence of [char] or -1 if none is found.\n */\n\npublic fun CharSequence.lastIndexOf(char: Char, startIndex: Int = lastIndex, ignoreCase: Boolean = false): Int {\n    return if (ignoreCase || this !is String)\n        lastIndexOfAny(charArrayOf(char), startIndex, ignoreCase)\n    else\n        nativeLastIndexOf(char, startIndex)\n}\n\n/**\n * Returns the index within this char sequence of the last occurrence of the specified [string],\n * starting from the specified [startIndex].\n *\n * @param startIndex The index of character to start searching at. The search proceeds backward toward the beginning of the string.\n * @param ignoreCase `true` to ignore character case when matching a string. By default `false`.\n * @return An index of the last occurrence of [string] or -1 if none is found.\n */\n\npublic fun CharSequence.lastIndexOf(string: String, startIndex: Int = lastIndex, ignoreCase: Boolean = false): Int {\n    return if (ignoreCase || this !is String)\n        indexOf(string, startIndex, 0, ignoreCase, last = true)\n    else\n        nativeLastIndexOf(string, startIndex)\n}\n\n/**\n * Returns `true` if this char sequence contains the specified [other] sequence of characters as a substring.\n *\n * @param ignoreCase `true` to ignore character case when comparing strings. By default `false`.\n */\n\n * @Suppress("INAPPLICABLE_OPERATOR_MODIFIER")\npublic operator fun CharSequence.contains(other: CharSequence, ignoreCase: Boolean = false): Boolean =\n    if (other is String)\n        indexOf(other, ignoreCase = ignoreCase) >= 0\n    else\n        indexOf(other, 0, length, ignoreCase) >= 0\n}\n\n/**\n * Returns `true` if this char sequence contains the specified character [char].\n *\n * @param ignoreCase `true` to ignore character case when comparing characters. By default `false`.\n */\n\n * @Suppress("INAPPLICABLE_OPERATOR_MODIFIER")\npublic operator fun CharSequence.contains(char: Char, ignoreCase: Boolean = false): Boolean =\n    indexOf(char, ignoreCase = ignoreCase) >= 0\n}\n\n/**\n * Returns `true` if this char sequence contains at least one match of the specified regular expression [regex].\n */\n\n * @kotlin.internal.InlineOnly\npublic inline operator fun CharSequence.contains(regex: Regex): Boolean =\n    regex.containsMatchIn(this)\n\n\n//\n\nrangesDelimitedBy\n\nprivate class DelimitedRangesSequence(\n    private val input: CharSequence,\n    private val startIndex: Int,\n    private val limit: Int,\n    private val getNextMatch: CharSequence.(currentIndex: Int) -> Pair<Int, Int>?) : Sequence<IntRange> {\n    override fun iterator(): Iterator<IntRange> = object : Iterator<IntRange> {\n        var nextState: Int = -1 // -1 for unknown, 0 for done, 1 for continue\n        var currentStartIndex: Int = startIndex.coerceIn(0, input.length)\n        var nextSearchIndex: Int = currentStartIndex\n        var nextItem: IntRange? = null\n        var counter: Int = 0\n        private fun calcNext() {\n            if (nextSearchIndex < 0) {\n                nextState = 0\n                nextItem = null\n            } else {\n                if (limit > 0 && ++counter >= limit || nextSearchIndex > input.length) {\n                    nextItem =\n                        currentStartIndex..input.lastIndex\n                        nextSearchIndex\n                    = -1\n                } else {\n                    val match = input.getNextMatch(nextSearchIndex)\n                    if (match == null) {\n                        nextItem = currentStartIndex..input.lastIndex\n                        nextSearchIndex = -1\n                    } else {\n                        val (index, length) = match\n                        nextItem = currentStartIndex until index\n                        currentStartIndex = index + length\n                        nextSearchIndex = currentStartIndex + if (length ==

```

```

0) 1 else 0\n        }\n        }\n        nextState = 1\n        }\n        }\n        override fun next():
IntRange {\n        if (nextState == -1)\n        calcNext()\n        if (nextState == 0)\n        throw
NoSuchElementException()\n        val result = nextItem as IntRange\n        // Clean next to avoid keeping
reference on yielded instance\n        nextItem = null\n
        nextState = -1\n        return result\n        }\n        override fun hasNext(): Boolean {\n        if (nextState
== -1)\n        calcNext()\n        return nextState == 1\n        }\n        }\n        }\n        /**\n        * Returns a sequence of index
ranges of substrings in this char sequence around occurrences of the specified [delimiters].\n        *\n        * @param
delimiters One or more characters to be used as delimiters.\n        *\n        * @param startIndex The index to start searching
delimiters from.\n        *\n        * No range having its start value less than [startIndex] is returned.\n        *\n        * [startIndex] is coerced to
be non-negative and not greater than length of this string.\n        *\n        * @param ignoreCase `true` to ignore character case
when matching a delimiter. By default `false`.\n        *\n        * @param limit The maximum number of substrings to return. Zero
by default means no limit is set.\n        *\n        */\n        private fun CharSequence.rangesDelimitedBy(delimiters: CharArray,
startIndex: Int = 0, ignoreCase: Boolean = false, limit: Int = 0):
Sequence<IntRange> {\n        requireNonNegativeLimit(limit)\n        return DelimitedRangesSequence(this,
startIndex, limit, { currentIndex ->\n        indexOfAny(delimiters, currentIndex, ignoreCase = ignoreCase).let { if (it
< 0) null else it to 1 }\n        })\n        }\n        }\n        /**\n        * Returns a sequence of index ranges of substrings in this char sequence
around occurrences of the specified [delimiters].\n        *\n        * @param delimiters One or more strings to be used as
delimiters.\n        *\n        * @param startIndex The index to start searching delimiters from.\n        *\n        * No range having its start value
less than [startIndex] is returned.\n        *\n        * [startIndex] is coerced to be non-negative and not greater than length of this
string.\n        *\n        * @param ignoreCase `true` to ignore character case when matching a delimiter. By default `false`.\n        *\n        * @param limit The maximum number of substrings to return. Zero by default means no limit is set.\n        *\n        * To avoid
ambiguous results when strings in [delimiters] have characters in common, this method
proceeds from\n        *\n        * the beginning to the end of this string, and finds at each position the first element in
[delimiters]\n        *\n        * that matches this string at that position.\n        *\n        */\n        private fun
CharSequence.rangesDelimitedBy(delimiters: Array<out String>, startIndex: Int = 0, ignoreCase: Boolean = false,
limit: Int = 0): Sequence<IntRange> {\n        requireNonNegativeLimit(limit)\n        val delimitersList =
delimiters.asList()\n        return DelimitedRangesSequence(this, startIndex, limit, { currentIndex ->
findAnyOf(delimitersList, currentIndex, ignoreCase = ignoreCase, last = false)?.let { it.first to it.second.length }\n        })\n        }\n        }\n        internal fun requireNonNegativeLimit(limit: Int) =\n        require(limit >= 0) { "Limit must be non-
negative, but was $limit" }\n        }\n        }\n        /**\n        * Splits this char sequence to a sequence of strings around
occurrences of the specified [delimiters].\n        *\n        * @param delimiters One or more strings to be used as delimiters.\n        *\n        * @param ignoreCase `true` to ignore character
case when matching a delimiter. By default `false`.\n        *\n        * @param limit The maximum number of substrings to return.
Zero by default means no limit is set.\n        *\n        * To avoid ambiguous results when strings in [delimiters] have
characters in common, this method proceeds from\n        *\n        * the beginning to the end of this string, and finds at each
position the first element in [delimiters]\n        *\n        * that matches this string at that position.\n        *\n        */\n        public fun
CharSequence.splitToSequence(vararg delimiters: String, ignoreCase: Boolean = false, limit: Int = 0):
Sequence<String> =\n        rangesDelimitedBy(delimiters, ignoreCase = ignoreCase, limit = limit).map { substring(it)
}\n        }\n        }\n        /**\n        * Splits this char sequence to a list of strings around occurrences of the specified [delimiters].\n        *\n        * @param delimiters One or more strings to be used as delimiters.\n        *\n        * @param ignoreCase `true` to ignore character
case when matching a delimiter. By default `false`.\n        *\n        * @param limit The maximum number of substrings to return.
Zero by default means no limit is set.\n        *\n        * To avoid ambiguous results when strings in [delimiters] have
characters in common, this method proceeds from\n        *\n        * the beginning to the end of this string, and matches at each
position the first element in [delimiters]\n        *\n        * that is equal to a delimiter in this instance at that position.\n        *\n        */\n        public fun
CharSequence.split(vararg delimiters: String, ignoreCase: Boolean = false, limit: Int = 0): List<String> {\n        if
(delimiters.size == 1) {\n        val delimiter = delimiters[0]\n        if (!delimiter.isEmpty()) {\n        return
split(delimiter, ignoreCase, limit)\n        }\n        }\n        }\n        return rangesDelimitedBy(delimiters, ignoreCase =
ignoreCase, limit = limit).asIterable().map { substring(it) }\n        }\n        }\n        }\n        /**\n        * Splits this char sequence to a sequence of

```

strings around occurrences of the specified [delimiters].

`@param delimiters` One or more characters to be used as delimiters.

`@param ignoreCase`true`` to ignore character case when matching a delimiter. By default `false``.

`@param limit` The maximum number of substrings to return.

```

public fun CharSequence.splitToSequence(vararg delimiters: Char, ignoreCase: Boolean = false, limit: Int = 0): Sequence<String> =
    rangesDelimitedBy(delimiters, ignoreCase = ignoreCase, limit = limit).map {
        substring(it)
    }

```

`splitToSequence` Splits this char sequence to a list of strings around occurrences of the specified [delimiters].

`@param delimiters` One or more characters to be used as delimiters.

`@param ignoreCase`true`` to ignore character case when matching a delimiter. By default `false``.

`@param limit` The maximum number of substrings to return.

```

public fun CharSequence.split(vararg delimiters: Char, ignoreCase: Boolean = false, limit: Int = 0): List<String> {
    if (delimiters.size == 1) {
        return split(delimiters[0].toString(), ignoreCase, limit)
    }
    return rangesDelimitedBy(delimiters, ignoreCase = ignoreCase, limit = limit).asIterable().map {
        substring(it)
    }
}

```

`split` Splits this char sequence to a list of strings around occurrences of the specified [delimiter].

This is specialized version of `split` which receives single non-empty delimiter and offers better performance.

`@param delimiter` String used as delimiter

`@param ignoreCase`true`` to ignore character case when matching a delimiter. By default `false``.

`@param limit` The maximum number of substrings to return.

```

private fun CharSequence.split(delimiter: String, ignoreCase: Boolean, limit: Int): List<String> {
    requireNonNegativeLimit(limit)
    var currentOffset = 0
    var nextIndex = indexOf(delimiter, currentOffset, ignoreCase)
    if (nextIndex == -1 || limit == 1) {
        return listOf(this.toString())
    }
    val isLimited = limit > 0
    val result = ArrayList<String>(if (isLimited) limit.coerceAtMost(10) else 10)
    do {
        result.add(substring(currentOffset, nextIndex))
        currentOffset = nextIndex + delimiter.length
        // Do not search for next occurrence if we're reaching limit
        if (isLimited && result.size == limit - 1) break
        nextIndex = indexOf(delimiter, currentOffset, ignoreCase)
    } while (nextIndex != -1)
    result.add(substring(currentOffset, length))
    return result
}

```

`split` Splits this char sequence to a list of strings around matches of the given regular expression.

`@param limit` Non-negative value specifying the maximum number of substrings to return. Zero by default means no limit is set.

```

@kotlin.internal.InlineOnly
public inline fun CharSequence.split(regex: Regex, limit: Int = 0): List<String> =
    regex.split(this, limit)

```

`split` Splits this char sequence to a sequence of strings around matches of the given regular expression.

`@param limit` Non-negative value specifying the maximum number of substrings to return. Zero by default means no limit is set.

`@sample` `samples.text.Strings.splitToSequence`

```

@SinceKotlin("1.6")
@WasExperimental(ExperimentalStdlibApi::class)
@kotlin.internal.InlineOnly
public inline fun CharSequence.splitToSequence(regex: Regex, limit: Int = 0): Sequence<String> =
    regex.splitToSequence(this, limit)

```

`splitToSequence` Splits this char sequence to a sequence of lines delimited by any of the following character sequences: CRLF, LF or CR.

`@param limit` The lines returned do not include terminating line separators.

```

public fun CharSequence.lineSequence(): Sequence<String> = splitToSequence("\\r\\n", "\\n", "\\r")

```

`lineSequence` Splits this char sequence to a list of lines delimited by any of the following character sequences: CRLF, LF or CR.

`@param limit` The lines returned do not include terminating line separators.

```

public fun CharSequence.lines(): List<String> = lineSequence().toList()

```

`lines` Returns `true`` if the contents of this char sequence are equal to the contents of the specified [other], i.e. both char sequences contain the same number of the same characters in the same order.

`@sample` `samples.text.Strings.contentEquals`

```

@SinceKotlin("1.5")
public expect infix fun CharSequence?.contentEquals(other: CharSequence?): Boolean

```

`contentEquals` Returns `true`` if the contents of this char sequence are equal to the contents of the specified [other], optionally ignoring case difference.

`@param ignoreCase`true`` to ignore character case when comparing contents.

`@sample` `samples.text.Strings.contentEquals`

```

@SinceKotlin("1.5")
public expect fun CharSequence?.contentEquals(other: CharSequence?, ignoreCase: Boolean): Boolean

```

`contentEquals` Returns `true`` if the contents of this char sequence are equal to the contents of the specified [other], optionally ignoring case difference.

```

internal fun CharSequence?.contentEqualsIgnoreCaseImpl(other: CharSequence?): Boolean {
    if (this is String && other is String) {
        return this.equals(other, ignoreCase = true)
    }
    if (this === other) return true
    if (this == null || other == null || this.length != other.length) return false
    for (i in 0 until length) {

```

```

    if (!this[i].equals(other[i], ignoreCase = true)) {\n        return false\n    }\n    return true\n}\n\ninternal
fun CharSequence?.contentEqualsImpl(other: CharSequence?): Boolean {\n    if (this is String && other is String)
{\n        return this == other\n    }\n    if (this === other) return true\n    if (this == null || other == null || this.length
!= other.length) return false\n    for (i in 0 until length) {\n        if (this[i] != other[i]) {\n            return false\n
}\n    }\n    return true\n}\n\n**\n * Returns `true` if the content of this string is equal to the word `true`, `false`
if it is equal to `false`,\n * and throws an exception otherwise.\n * There is also a lenient version of the
function available on nullable String, [String?.toBoolean].\n * Note that this function is case-sensitive.\n *
@sample samples.text.Strings.toBooleanStrict\n *\n@SinceKotlin("1.5")\n\npublic fun String.toBooleanStrict():
Boolean = when (this)
{\n    `true` -> true\n    `false` -> false\n    else -> throw IllegalArgumentException(`The string doesn't represent
a boolean value: $this`)\n}\n\n**\n * Returns `true` if the content of this string is equal to the word `true`, `false`
if it is equal to `false`,\n * and `null` otherwise.\n * There is also a lenient version of the function available on
nullable String, [String?.toBoolean].\n * Note that this function is case-sensitive.\n *
@sample
samples.text.Strings.toBooleanStrictOrNull\n *\n@SinceKotlin("1.5")\n\npublic fun
String.toBooleanStrictOrNull(): Boolean? = when (this) {\n    `true` -> true\n    `false` -> false\n    else ->
null\n},"*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of
this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n *\n\n//
Auto-generated file. DO NOT EDIT!\n\npackage kotlin\n\nimport
kotlin.jvm.*\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@JvmInline\n\npublic
value class UByteArray\n@PublishedApi\n\ninternal constructor(@PublishedApi internal val storage: ByteArray) :
Collection<UByte> {\n    /** Creates a new array of the specified [size], with all elements initialized to zero. *\n
public constructor(size: Int) : this(ByteArray(size))\n    /**\n * Returns the array element at the given [index].
This method can be called using the index operator.\n * If the [index] is out of bounds of this array, throws
an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n *\n public
operator fun get(index: Int): UByte = storage[index].toUByte()\n    /**\n * Sets the element at the given [index]
to the given [value]. This method can be called using the index operator.\n * If the [index] is out of bounds
of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is
unspecified.\n
*\n public operator fun set(index: Int, value: UByte) {\n    storage[index] = value.toByte()\n }\n\n /**
Returns the number of elements in the array. *\n public override val size: Int get() = storage.size\n    /** Creates
an iterator over the elements of the array. *\n public override operator fun iterator():
kotlin.collections.Iterator<UByte> = Iterator(storage)\n\n @Suppress("DEPRECATION_ERROR")\n private
class Iterator(private val array: ByteArray) : UByteIterator() {\n    private var index = 0\n    override fun
hasNext() = index < array.size\n    override fun nextUByte() = if (index < array.size) array[index++].toUByte()
else throw NoSuchElementException(index.toString())\n }\n\n override fun contains(element: UByte): Boolean
{\n    // TODO: Eliminate this check after KT-30016 gets fixed.\n    // Currently JS BE does not generate
special bridge method for this method.\n    @Suppress("USELESS_CAST")\n    if ((element
as Any?) !is UByte) return false\n    return storage.contains(element.toByte())\n }\n\n override fun
containsAll(elements: Collection<UByte>): Boolean {\n    return (elements as Collection<*>).all { it is UByte
&& storage.contains(it.toByte()) }\n }\n\n override fun isEmpty(): Boolean = this.storage.size == 0\n}\n\n**\n
* Creates a new array of the specified [size], where each element is calculated by calling the specified\n * [init]
function.\n * The function [init] is called for each array element sequentially starting from the first one.\n * It
should return the value for an array element given its index.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\n\npublic inline fun
UByteArray(size: Int, init: (Int) -> UByte): UByteArray {\n    return UByteArray(ByteArray(size) { index ->
init(index).toByte()
})\n}\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\n\npublic inline fun
ubyteArrayOf(vararg

```

```

elements: UByte): UByteArray = elements\n", "/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin\n\nimport
kotlin.jvm.*\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@JvmInline\npublic value class
UIntArray\n@PublishedApi\ninternal constructor(@PublishedApi internal val storage: IntArray) : Collection<UInt>
{\n\n /** Creates a new array of the specified [size], with all elements initialized to zero. *\n public
constructor(size: Int) : this(IntArray(size))\n\n /**\n * Returns the array element at the given [index]. This
method can be called using the index operator.\n * \n * If the [index] is out of bounds of this array, throws an
[IndexOutOfBoundsExcep] except in Kotlin/JS\n * where the behavior is unspecified.\n * \n public
operator fun get(index: Int): UInt = storage[index].toInt()\n\n /**\n * Sets the element at the given [index] to
the given [value]. This method can be called using the index operator.\n * \n * If the [index] is out of bounds of
this array, throws an [IndexOutOfBoundsExcep] except in Kotlin/JS\n * where the behavior is unspecified.\n\n
*\n public operator fun set(index: Int, value: UInt) {\n storage[index] = value.toInt()\n }\n\n /** Returns
the number of elements in the array. *\n public override val size: Int get() = storage.size\n\n /** Creates an
iterator over the elements of the array. *\n public override operator fun iterator(): kotlin.collections.Iterator<UInt>
= Iterator(storage)\n\n @Suppress("DEPRECATION_ERROR")\n private class Iterator(private val array:
IntArray) : UIntIterator() {\n private var index = 0\n override fun hasNext() = index < array.size\n
override fun nextUInt() = if (index < array.size)
array[index++].toInt() else throw NoSuchElementException(index.toString())\n }\n\n override fun
contains(element: UInt): Boolean {\n // TODO: Eliminate this check after KT-30016 gets fixed.\n //
Currently JS BE does not generate special bridge method for this method.\n
@Suppress("USELESS_CAST")\n if ((element as Any?) !is UInt) return false\n\n return
storage.contains(element.toInt())\n }\n\n override fun containsAll(elements: Collection<UInt>): Boolean {\n
return (elements as Collection<*>).all { it is UInt && storage.contains(it.toInt()) }\n }\n\n override fun
isEmpty(): Boolean = this.storage.size == 0\n}\n\n/**\n * Creates a new array of the specified [size], where each
element is calculated by calling the specified\n * [init] function.\n * \n * The function [init] is called for each array
element sequentially starting from the first one.\n * It should return the value for an array element given its index.\n
*\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UIntArray(size: Int, init: (Int) -> UInt): UIntArray {\n return UIntArray(IntArray(size) { index ->
init(index).toInt()
})\n}\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
uintArrayOf(vararg elements: UInt): UIntArray = elements\n", "/*\n * Copyright 2010-2022 JetBrains s.r.o. and
Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage
kotlin\n\nimport kotlin.jvm.*\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@JvmInline\npublic
value class ULongArray\n@PublishedApi\ninternal constructor(@PublishedApi internal val storage: LongArray) :
Collection<ULong> {\n\n /** Creates a new array of the specified [size], with all elements initialized to zero. *\n
public constructor(size:
Int) : this(LongArray(size))\n\n /**\n * Returns the array element at the given [index]. This method can be
called using the index operator.\n * \n * If the [index] is out of bounds of this array, throws an
[IndexOutOfBoundsExcep] except in Kotlin/JS\n * where the behavior is unspecified.\n * \n public
operator fun get(index: Int): ULong = storage[index].toULong()\n\n /**\n * Sets the element at the given
[index] to the given [value]. This method can be called using the index operator.\n * \n * If the [index] is out of
bounds of this array, throws an [IndexOutOfBoundsExcep] except in Kotlin/JS\n * where the behavior is
unspecified.\n * \n public operator fun set(index: Int, value: ULong) {\n storage[index] = value.toLong()\n
}\n\n /** Returns the number of elements in the array. *\n public override val size: Int get() = storage.size\n\n
/** Creates an iterator over the elements of the array. *\n

```

```

    public override operator fun iterator(): kotlin.collections.Iterator<ULong> = Iterator(storage)\n\n
@Suppress("DEPRECATION_ERROR")\n    private class Iterator(private val array: LongArray) : ULongIterator()
{\n    private var index = 0\n    override fun hasNext() = index < array.size\n    override fun nextULong() = if
(index < array.size) array[index++].toULong() else throw NoSuchElementException(index.toString())\n    }\n\n
override fun contains(element: ULong): Boolean {\n    // TODO: Eliminate this check after KT-30016 gets
fixed.\n    // Currently JS BE does not generate special bridge method for this method.\n
@Suppress("USELESS_CAST")\n    if ((element as Any?) !is ULong) return false\n\n    return
storage.contains(element.toLong())\n    }\n\n    override fun containsAll(elements: Collection<ULong>): Boolean
{\n    return (elements as Collection<*>).all { it is ULong && storage.contains(it.toLong()) }\n    }\n\n    override
fun
isEmpty(): Boolean = this.storage.size == 0\n\n}\n\n**\n * Creates a new array of the specified [size], where each
element is calculated by calling the specified\n * [init] function.\n * \n * The function [init] is called for each array
element sequentially starting from the first one.\n * It should return the value for an array element given its index.\n
*\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray(size: Int, init: (Int) -> ULong): ULongArray {\n    return ULongArray(LongArray(size) { index ->
init(index).toLong()
})\n}\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ulongArrayOf(vararg elements: ULong): ULongArray = elements\n\n,**\n * Copyright 2010-2022 JetBrains s.r.o.
and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license
that can be found in the license/LICENSE.txt file.\n *\n\n// Auto-generated file.
DO NOT EDIT!\n\npackage kotlin\n\nimport
kotlin.jvm.*\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@JvmInline\npublic value class
UShortArray\n@PublishedApi\ninternal constructor(@PublishedApi internal val storage: ShortArray) :
Collection<UShort> {\n\n    /** Creates a new array of the specified [size], with all elements initialized to zero. *\n
public constructor(size: Int) : this(ShortArray(size))\n\n    /**\n * Returns the array element at the given [index].
This method can be called using the index operator.\n * \n * If the [index] is out of bounds of this array, throws
an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n * \n public
operator fun get(index: Int): UShort = storage[index].toUShort()\n\n    /**\n * Sets the element at the given
[index] to the given [value]. This method can be called using the index operator.\n * \n * If the [index] is out of
bounds of this array, throws an [IndexOutOfBoundsException]
except in Kotlin/JS\n * where the behavior is unspecified.\n * \n public operator fun set(index: Int, value:
UShort) {\n    storage[index] = value.toShort()\n    }\n\n    /** Returns the number of elements in the array. *\n
public override val size: Int get() = storage.size\n\n    /** Creates an iterator over the elements of the array. *\n
public override operator fun iterator(): kotlin.collections.Iterator<UShort> = Iterator(storage)\n\n
@Suppress("DEPRECATION_ERROR")\n    private class Iterator(private val array: ShortArray) :
UShortIterator() {\n    private var index = 0\n    override fun hasNext() = index < array.size\n    override fun
nextUShort() = if (index < array.size) array[index++].toUShort() else throw
NoSuchElementException(index.toString())\n    }\n\n    override fun contains(element: UShort): Boolean {\n    //
TODO: Eliminate this check after KT-30016 gets fixed.\n    // Currently JS BE does not generate special
bridge method for this method.\n    @Suppress("USELESS_CAST")\n    if ((element as Any?) !is UShort)
return false\n\n    return storage.contains(element.toShort())\n    }\n\n    override fun containsAll(elements:
Collection<UShort>): Boolean {\n    return (elements as Collection<*>).all { it is UShort &&
storage.contains(it.toShort()) }\n    }\n\n    override fun isEmpty(): Boolean = this.storage.size == 0\n\n}\n\n**\n *
Creates a new array of the specified [size], where each element is calculated by calling the specified\n * [init]
function.\n * \n * The function [init] is called for each array element sequentially starting from the first one.\n * It
should return the value for an array element given its index.\n
*\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray(size: Int, init: (Int) -> UShort): UShortArray {\n    return UShortArray(ShortArray(size) { index ->

```



```

init(index).toShort()
})\n}\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ushortArrayOf(vararg elements: UShort): UShortArray = elements\n", "/*\n * Copyright 2010-2021
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("UArraysKt")\n@file:kotlin.jvm.JvmPacka
geName("kotlin.collections.unsigned")\n\npackage kotlin.collections\n\n/\n// NOTE: THIS FILE IS AUTO-
GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\n\nimport kotlin.random.*\nimport
kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the
size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior
is unspecified.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline operator fun UIntArray.component1(): UInt {\n    return get(0)\n}\n\n/**\n * Returns 1st *element* from the
array.\n * \n * If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n
* where the behavior is unspecified.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
ULongArray.component1(): ULong {\n    return get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n *
If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the
behavior is unspecified.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UByteArray.component1(): UByte {\n    return get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If
the size of this array is less than 1, throws an [IndexOutOfBoundsException]
except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UShortArray.component1(): UShort {\n    return get(0)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n *
If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the
behavior is unspecified.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UIntArray.component2(): UInt {\n    return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If
the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the
behavior is unspecified.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
ULongArray.component2(): ULong {\n    return get(1)\n}\n\n/**\n * Returns 2nd *element*
from the array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in
Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UByteArray.component2(): UByte {\n    return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n *
If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the
behavior is unspecified.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UShortArray.component2(): UShort {\n    return get(1)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n *
If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the
behavior is unspecified.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
operator fun UIntArray.component3(): UInt {\n    return get(2)\n}\n\n/**\n * Returns 3rd *element* from the
array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n
* where the behavior is unspecified.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun

```

UByteArray.component3(): ULong {  
 return get(2)}  
 Returns 3rd \*element\* from the array.  
 If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS where the behavior is unspecified.

@SinceKotlin("1.3")  
 @ExperimentalUnsignedTypes  
 @kotlin.internal.InlineOnly  
 public inline operator fun  
 UByteArray.component3(): UByte {  
 return get(2)}  
 Returns 3rd \*element\* from the array.  
 If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS where the behavior is unspecified.

@SinceKotlin("1.3")  
 @ExperimentalUnsignedTypes  
 @kotlin.internal.InlineOnly  
 public  
 inline operator fun  
 UShortArray.component3(): UShort {  
 return get(2)}  
 Returns 4th \*element\* from the array.  
 If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS where the behavior is unspecified.

@SinceKotlin("1.3")  
 @ExperimentalUnsignedTypes  
 @kotlin.internal.InlineOnly  
 public inline operator fun  
 UIntArray.component4(): UInt {  
 return get(3)}  
 Returns 4th \*element\* from the array.  
 If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS where the behavior is unspecified.

@SinceKotlin("1.3")  
 @ExperimentalUnsignedTypes  
 @kotlin.internal.InlineOnly  
 public  
 inline operator fun  
 ULongArray.component4(): ULong {  
 return get(3)}  
 Returns 4th \*element\* from the array.  
 If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS where the behavior is unspecified.

@SinceKotlin("1.3")  
 @ExperimentalUnsignedTypes  
 @kotlin.internal.InlineOnly  
 public inline operator fun  
 UByteArray.component4(): UByte {  
 return get(3)}  
 Returns 4th \*element\* from the array.  
 If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS where the behavior is unspecified.

@SinceKotlin("1.3")  
 @ExperimentalUnsignedTypes  
 @kotlin.internal.InlineOnly  
 public inline operator fun  
 UShortArray.component4(): UShort {  
 return get(3)}  
 Returns 5th \*element\* from the array.  
 If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS where the behavior is unspecified.

@SinceKotlin("1.3")  
 @ExperimentalUnsignedTypes  
 @kotlin.internal.InlineOnly  
 public inline operator fun  
 UIntArray.component5(): UInt {  
 return get(4)}  
 Returns 5th \*element\* from the array.  
 If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS where the behavior is unspecified.

@SinceKotlin("1.3")  
 @ExperimentalUnsignedTypes  
 @kotlin.internal.InlineOnly  
 public inline operator fun  
 ULongArray.component5(): ULong {  
 return get(4)}  
 Returns 5th \*element\* from the array.  
 If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS where the behavior is unspecified.

@SinceKotlin("1.3")  
 @ExperimentalUnsignedTypes  
 @kotlin.internal.InlineOnly  
 public inline operator fun  
 UByteArray.component5(): UByte {  
 return get(4)}  
 Returns 5th \*element\* from the array.  
 If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS where the behavior is unspecified.

@SinceKotlin("1.3")  
 @ExperimentalUnsignedTypes  
 @kotlin.internal.InlineOnly  
 public  
 inline operator fun  
 UShortArray.component5(): UShort {  
 return get(4)}  
 Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.  
 @sample samples.collections.Collections.Elements.elementAt

@SinceKotlin("1.3")  
 @ExperimentalUnsignedTypes  
 public expect fun  
 UIntArray.elementAt(index: Int):  
 UInt  
 Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.  
 @sample samples.collections.Collections.Elements.elementAt

@SinceKotlin("1.3")  
 @ExperimentalUnsignedTypes  
 public expect fun  
 ULongArray.elementAt(index: Int):  
 ULong  
 Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.  
 @sample samples.collections.Collections.Elements.elementAt

```

*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic expect
fun UByteArray.elementAt(index: Int): UByte\n\n/**\n * Returns an element at the given [index] or throws an
[IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAt\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic expect fun UShortArray.elementAt(index: Int):
UShort\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the
[index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.elementAtOrElse(index: Int, defaultValue: (Int) -> UInt): UInt {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds
of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.elementAtOrElse(index: Int, defaultValue: (Int) -> ULong): ULong {\n    return if (index >= 0 &&
index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the
result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.elementAtOrElse(index: Int, defaultValue: (Int) -> UByte): UByte {\n    return if (index >= 0 && index
<= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result
of calling the [defaultValue] function if the [index] is out of bounds of this
array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.elementAtOrElse(index: Int, defaultValue: (Int) -> UShort): UShort {\n    return if (index >= 0 &&
index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or
`null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.elementAtOrNull(index: Int): UInt? {\n    return this.getOrNull(index)\n}\n\n/**\n * Returns an element
at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.elementAtOrNull(index: Int): ULong? {\n    return this.getOrNull(index)\n}\n\n/**\n *
Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.elementAtOrNull(index: Int): UByte? {\n    return this.getOrNull(index)\n}\n\n/**\n * Returns an
element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.elementAtOrNull(index: Int): UShort? {\n    return this.getOrNull(index)\n}\n\n/**\n * Returns the
first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.find(predicate: (UInt) -> Boolean): UInt? {\n    return firstOrNull(predicate)\n}\n\n/**\n * Returns the
first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n

```

```

*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.find(predicate: (ULong) -> Boolean): ULong? {\n    return firstOrNull(predicate)\n}\n\n/**\n *
Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.find(predicate: (UByte) -> Boolean): UByte? {\n    return firstOrNull(predicate)\n}\n\n/**\n * Returns
the first element matching
the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.find(predicate: (UShort) -> Boolean): UShort? {\n    return firstOrNull(predicate)\n}\n\n/**\n *
Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.findLast(predicate: (UInt) -> Boolean): UInt? {\n    return lastOrNull(predicate)\n}\n\n/**\n * Returns the
last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.findLast(predicate:
(ULong) -> Boolean): ULong? {\n    return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching
the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.findLast(predicate: (UByte) -> Boolean): UByte? {\n    return lastOrNull(predicate)\n}\n\n/**\n *
Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.findLast(predicate: (UShort) -> Boolean): UShort? {\n    return lastOrNull(predicate)\n}\n\n/**\n *
Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UIntArray.first(): UInt {\n    return storage.first().toUInt()\n}\n\n/**\n * Returns first element.\n *
@throws [NoSuchElementException] if the array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.first(): ULong {\n    return storage.first().toULong()\n}\n\n/**\n * Returns first element.\n * @throws
[NoSuchElementException] if the array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.first(): UByte {\n    return storage.first().toUByte()\n}\n\n/**\n * Returns first element.\n * @throws
[NoSuchElementException] if the array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.first(): UShort {\n    return storage.first().toUShort()\n}\n\n/**\n * Returns the first element matching
the given [predicate].\n * @throws [NoSuchElementException] if no
such element is found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.first(predicate: (UInt) -> Boolean): UInt {\n    for (element in this) if (predicate(element)) return
element\n    throw NoSuchElementException("Array contains no element matching the predicate.")\n}\n\n/**\n *
Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such
element is found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun

```

```

ULongArray.first(predicate: (ULong) -> Boolean): ULong {\n  for (element in this) if (predicate(element)) return
element\n  throw NoSuchElementException("Array contains no element matching the predicate.")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such
element is found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UByteArray.first(predicate: (UByte) -> Boolean): UByte {\n  for (element in this) if
(predicate(element)) return element\n  throw NoSuchElementException("Array contains no element matching the
predicate.")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws
[NoSuchElementException] if no such element is found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.first(predicate: (UShort) -> Boolean): UShort {\n  for (element in this) if (predicate(element)) return
element\n  throw NoSuchElementException("Array contains no element matching the predicate.")\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.firstOrNull(): UInt? {\n  return
if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic
fun ULongArray.firstOrNull(): ULong? {\n  return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first
element, or `null` if the array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UByteArray.firstOrNull(): UByte? {\n  return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first
element, or `null` if the array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UShortArray.firstOrNull(): UShort? {\n  return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first
element matching the given [predicate], or `null` if element was not found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.firstOrNull(predicate: (UInt) -> Boolean): UInt? {\n  for (element in this) if (predicate(element)) return
element\n  return null\n}\n\n/**\n * Returns the first element matching the given
[predicate], or `null` if element was not found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.firstOrNull(predicate: (ULong) -> Boolean): ULong? {\n  for (element in this) if (predicate(element))
return element\n  return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if
element was not found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.firstOrNull(predicate: (UByte) -> Boolean): UByte? {\n  for (element in this) if (predicate(element))
return element\n  return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if
element was not found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.firstOrNull(predicate: (UShort) -> Boolean): UShort? {\n  for (element in this) if (predicate(element))
return
return
element\n  return null\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the
[defaultValue] function if the [index] is out of bounds of this array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.getOrNull(index: Int, defaultValue: (Int) -> UInt): UInt? {\n  return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds of this array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.getOrNull(index: Int, defaultValue: (Int) -> ULong): ULong? {\n  return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds of this

```

```

array.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.getOrNull(index: Int, defaultValue: (Int) -> UByte): UByte {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds of this array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.getOrNull(index: Int, defaultValue: (Int) -> UShort): UShort {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the
[index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.getOrNull(index: Int): UInt? {\n
return if (index
>= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given [index] or `null` if
the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.getOrNull(index: Int):
ULong? {\n    return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at
the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.getOrNull\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.getOrNull(index: Int): UByte?
{\n    return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the
given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.getOrNull\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic
fun UShortArray.getOrNull(index: Int): UShort? {\n    return if (index >= 0 && index <= lastIndex) get(index) else
null\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.indexOf(element: UInt): Int {\n    return storage.indexOf(element.toInt())\n}\n\n/**\n * Returns first
index of [element], or -1 if the array does not contain element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.indexOf(element: ULong): Int {\n    return storage.indexOf(element.toLong())\n}\n\n/**\n * Returns
first index of [element], or -1 if the array does not contain element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.indexOf(element: UByte): Int {\n    return storage.indexOf(element.toByte())\n}\n\n/**\n *
Returns first index of [element], or -1 if the array does not contain element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.indexOf(element: UShort): Int {\n    return storage.indexOf(element.toShort())\n}\n\n/**\n * Returns
index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.indexOfFirst(predicate: (UInt) -> Boolean): Int {\n    return storage.indexOfFirst { predicate(it.toUInt())
}\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain
such element.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.indexOfFirst(predicate: (ULong) -> Boolean): Int {\n    return storage.indexOfFirst {
predicate(it.toULong()) }\n}\n\n/**\n *
Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.indexOfFirst(predicate: (UByte) -> Boolean): Int {\n    return storage.indexOfFirst {
predicate(it.toUByte()) }\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the
array does not contain such element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.indexOfFirst(predicate: (UShort) -> Boolean): Int {\n    return storage.indexOfFirst {

```



```

    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if (predicate(element)) return
element\n    }\n    throw NoSuchElementException("Array contains no element matching the
predicate.")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws
NoSuchElementException if no such element is found.\n * \n * @sample
samples.collections.Collections.Elements.last\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.last(predicate: (UShort) -> Boolean): UShort {\n    for (index in this.indices.reversed()) {\n        val
element = this[index]\n        if (predicate(element)) return element\n    }\n    throw
NoSuchElementException("Array contains no element matching the predicate.")\n}\n\n/**\n * Returns last index
of [element], or -1 if the array does not contain element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun UIntArray.lastIndexOf(element: UInt): Int {\n    return storage.lastIndexOf(element.toInt())\n}\n\n/**\n *
Returns last index of [element], or -1 if the array does not contain element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.lastIndexOf(element: ULong): Int {\n    return storage.lastIndexOf(element.toLong())\n}\n\n/**\n *
Returns last index of [element], or -1 if the array does not contain element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.lastIndexOf(element: UByte): Int {\n    return storage.lastIndexOf(element.toByte())\n}\n\n/**\n *
Returns last index of [element], or -1 if the array does not contain element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.lastIndexOf(element: UShort): Int {\n    return storage.lastIndexOf(element.toShort())\n}\n\n/**\n *
Returns
the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.lastOrNull(): UInt? {\n    return
if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n *
@sample samples.collections.Collections.Elements.last\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.lastOrNull(): ULong? {\n    return
if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n *
@sample samples.collections.Collections.Elements.last\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.lastOrNull(): UByte? {\n    return
if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n *
@sample samples.collections.Collections.Elements.last\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic
fun UShortArray.lastOrNull(): UShort? {\n    return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the
last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.last\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.lastOrNull(predicate: (UInt) -> Boolean): UInt? {\n    for (index in this.indices.reversed()) {\n        val
element = this[index]\n        if (predicate(element)) return element\n    }\n    return null\n}\n\n/**\n * Returns the last
element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.last\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.lastOrNull(predicate: (ULong) -> Boolean): ULong? {\n    for (index in this.indices.reversed())
{\n        val element = this[index]\n        if (predicate(element)) return element\n    }\n    return null\n}\n\n/**\n *
Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.last\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.lastOrNull(predicate: (UByte) -> Boolean): UByte? {\n    for (index in this.indices.reversed()) {\n

```



```

val element = this[index]\n    if (predicate(element)) return element\n    }\n    return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.lastOrNull(predicate: (UShort) -> Boolean): UShort? {\n    for (index in this.indices.reversed())\n    {\n        val element = this[index]\n        if (predicate(element)) return element\n    }\n    return null\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.random(): UInt {\n    return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.random(): ULong {\n    return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.random(): UByte {\n    return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.random(): UShort {\n    return random(Random)\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.random(random: Random): UInt {\n    if (isEmpty())\n        throw NoSuchElementException("Array is empty.")\n    return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.random(random: Random): ULong {\n    if (isEmpty())\n        throw NoSuchElementException("Array is empty.")\n    return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.random(random: Random): UByte {\n    if (isEmpty())\n        throw NoSuchElementException("Array is empty.")\n    return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.random(random: Random): UShort {\n    if (isEmpty())\n        throw NoSuchElementException("Array is empty.")\n    return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.randomOrNull(): UInt? {\n    return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.randomOrNull(): ULong? {\n    return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.randomOrNull(): UByte? {\n    return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.randomOrNull(): UShort?

```

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    { \n    return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array using the specified
source of randomness, or `null` if this array is empty.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\np
ublic fun UIntArray.randomOrNull(random: Random): UInt? {\n    if (isEmpty())\n        return null\n    return
get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of
randomness, or `null` if this array is empty.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\np
ublic fun ULongArray.randomOrNull(random: Random): ULong? {\n    if (isEmpty())\n        return null\n    return
get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of
randomness, or `null` if this array is empty.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\np
ublic
fun UByteArray.randomOrNull(random: Random): UByte? {\n    if (isEmpty())\n        return null\n    return
get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of
randomness, or `null` if this array is empty.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\np
ublic fun UShortArray.randomOrNull(random: Random): UShort? {\n    if (isEmpty())\n        return null\n    return
get(random.nextInt(size))\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or
has more than one element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.single(): UInt {\n    return storage.single().toUInt()\n}\n\n/**\n * Returns the single element, or throws an
exception if the array is empty or has more than one element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.single(): ULong {\n    return storage.single().toULong()\n}\n\n/**\n * Returns the single
element, or throws an exception if the array is empty or has more than one element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.single(): UByte {\n    return storage.single().toUByte()\n}\n\n/**\n * Returns the single element, or
throws an exception if the array is empty or has more than one element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.single(): UShort {\n    return storage.single().toUShort()\n}\n\n/**\n * Returns the single element
matching the given [predicate], or throws exception if there is no or more than one matching element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.single(predicate: (UInt) -> Boolean): UInt {\n
    var single: UInt? = null\n    var found = false\n    for (element in this) {\n        if (predicate(element)) {\n            if
(found) throw IllegalArgumentException("Array contains more than one matching element.")\n            single =
element\n            found = true\n        }\n    }\n    if (!found) throw NoSuchElementException("Array contains no
element matching the predicate.")\n    @Suppress("UNCHECKED_CAST")\n    return single as UInt\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one
matching element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.single(predicate: (ULong) -> Boolean): ULong {\n    var single: ULong? = null\n    var found = false\n
for (element in this) {\n        if (predicate(element)) {\n            if (found) throw IllegalArgumentException("Array
contains more than one matching element.")\n            single = element\n            found = true\n        }\n    }\n    if (!found) throw NoSuchElementException("Array
contains no element matching the predicate.")\n    @Suppress("UNCHECKED_CAST")\n    return single as
ULong\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or
more than one matching element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun

```

```

ByteArray.single(predicate: (Byte) -> Boolean): Byte {
    var single: Byte? = null
    var found = false
    for (element in this) {
        if (predicate(element)) {
            if (found) throw IllegalArgumentException("Array
contains more than one matching element.")
            single = element
            found = true
        }
    }
    if (!found) throw NoSuchElementException("Array contains no element matching the predicate.")
}
@Suppress("UNCHECKED_CAST")
return single as Byte
}

* Returns the single element matching the given [predicate], or throws exception if there is no or more than one
matching element.

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun
UShortArray.single(predicate: (UShort) -> Boolean): UShort {
    var single: UShort? = null
    var found = false
    for (element in this) {
        if (predicate(element)) {
            if (found) throw IllegalArgumentException("Array
contains more than one matching element.")
            single = element
            found = true
        }
    }
    if (!found) throw NoSuchElementException("Array contains no element matching the predicate.")
}
@Suppress("UNCHECKED_CAST")
return single as UShort
}

* Returns single element, or `null` if
the array is empty or has more than one element.

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun UIntArray.singleOrNull(): UInt? {
    return if (size == 1) this[0]
    else null
}

* Returns single element, or `null` if the array is empty or has more than one element.

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun ULongArray.singleOrNull(): ULong? {
    return if (size == 1) this[0] else null
}

* Returns single element, or `null` if the array is empty or has more
than one element.

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun
ByteArray.singleOrNull(): Byte? {
    return if (size == 1) this[0] else null
}

* Returns single element,
or `null` if the array is empty or has more than one element.

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun UShortArray.singleOrNull(): UShort? {
    return if (size == 1) this[0] else null
}

* Returns the single element matching the given [predicate], or
`null` if element was not found or more than one element was found.

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public
inline fun UIntArray.singleOrNull(predicate: (UInt) -> Boolean): UInt? {
    var single: UInt? = null
    var found
= false
    for (element in this) {
        if (predicate(element)) {
            if (found) return null
            single =
element
            found = true
        }
    }
    if (!found) return null
    return single
}

* Returns the
single element matching the given [predicate], or `null` if element was not found or more than one element was
found.

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline
fun ULongArray.singleOrNull(predicate: (ULong) -> Boolean): ULong? {
    var single: ULong? = null
    var
found = false
    for (element in this) {
        if (predicate(element)) {
            if (found) return null
            single
= element
            found = true
        }
    }
    if (!found) return null
    return single
}

* Returns the
single element matching the given
[predicate], or `null` if element was not found or more than one element was found.

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun
ByteArray.singleOrNull(predicate: (Byte) -> Boolean): Byte? {
    var single: Byte? = null
    var found =
false
    for (element in this) {
        if (predicate(element)) {
            if (found) return null
            single =
element
            found = true
        }
    }
    if (!found) return null
    return single
}

* Returns the
single element matching the given [predicate], or `null` if element was not found or more than one element was
found.

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline
fun UShortArray.singleOrNull(predicate: (UShort) -> Boolean): UShort? {
    var single: UShort? = null
    var
found = false
    for (element in this) {
        if (predicate(element)) {
            if (found) return null
            single
= element
            found = true
        }
    }
    if (!found) return null
    return single
}

* Returns the
single element matching the given [predicate], or `null` if element was not found or more than one element was
found.

Returns a list containing all elements except first [n] elements.
* @throws IllegalArgumentException if [n] is
negative.
* @sample samples.collections.Collections.Transformations.drop

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun UIntArray.drop(n: Int): List<UInt> {

```

```

require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.drop(n: Int): List<ULong> {\n
  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws
IllegalArgumentException if [n]
is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.drop(n: Int): List<UByte> {\n
  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws
IllegalArgumentException if [n]
is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.drop(n: Int): List<UShort> {\n
  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws
IllegalArgumentException
if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.dropLast(n: Int): List<UInt> {\n
  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws
IllegalArgumentException
if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.dropLast(n: Int):
List<ULong> {\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws
IllegalArgumentException
if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic
fun UByteArray.dropLast(n: Int): List<UByte> {\n  require(n >= 0) { \"Requested element count $n is less than
zero.\" }\n  return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last
[n] elements.\n * \n * @throws
IllegalArgumentException
if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.dropLast(n: Int):
List<UShort> {\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given
[predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.dropLastWhile(predicate: (UInt) -> Boolean):
List<UInt> {\n  for (index in lastIndex downTo 0) {\n    if (!predicate(this[index])) {\n      return take(index
+ 1)\n    }\n  }\n  return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements
that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.dropLastWhile(predicate: (ULong) -> Boolean): List<ULong> {\n  for (index in lastIndex downTo 0)
{\n    if (!predicate(this[index])) {\n      return take(index + 1)\n    }\n  }\n  return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n

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*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.dropLastWhile(predicate:
(UByte) -> Boolean): List<UByte> {\n  for (index in lastIndex downTo 0) {\n    if (!predicate(this[index])) {\n      return take(index + 1)\n    }\n  }\n  return emptyList()\n}\n/**\n * Returns a list containing all elements
except last elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.dropLastWhile(predicate: (UShort) -> Boolean): List<UShort> {\n  for (index in lastIndex downTo
0) {\n    if (!predicate(this[index])) {\n      return take(index + 1)\n    }\n  }\n  return
emptyList()\n}\n/**\n * Returns a list containing all elements except first elements that satisfy the given
[predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UIntArray.dropWhile(predicate: (UInt) -> Boolean): List<UInt> {\n  var yielding = false\n  val list =
ArrayList<UInt>()\n  for (item in this)\n    if (yielding)\n      list.add(item)\n    else if (!predicate(item)) {\n      list.add(item)\n      yielding = true\n    }\n  return list\n}\n/**\n * Returns a list containing all
elements except first elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.dropWhile(predicate: (ULong) -> Boolean): List<ULong> {\n  var yielding = false\n  val list =
ArrayList<ULong>()\n  for (item in this)\n    if (yielding)\n      list.add(item)\n    else if (!predicate(item))
{\n      list.add(item)\n      yielding = true\n    }\n  return list\n}\n/**\n * Returns a list containing all
elements except
first elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.dropWhile(predicate: (UByte) -> Boolean): List<UByte> {\n  var yielding = false\n  val list =
ArrayList<UByte>()\n  for (item in this)\n    if (yielding)\n      list.add(item)\n    else if (!predicate(item))
{\n      list.add(item)\n      yielding = true\n    }\n  return list\n}\n/**\n * Returns a list containing all
elements except first elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.dropWhile(predicate: (UShort) -> Boolean): List<UShort> {\n  var yielding = false\n  val list =
ArrayList<UShort>()\n  for (item in this)\n    if (yielding)\n      list.add(item)\n    else if (!predicate(item))
{\n      list.add(item)\n      yielding = true\n    }\n  return list\n}\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.filter(predicate: (UInt) -> Boolean): List<UInt> {\n  return filterTo(ArrayList<UInt>(),
predicate)\n}\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.filter(predicate: (ULong) -> Boolean): List<ULong> {\n  return filterTo(ArrayList<ULong>(),
predicate)\n}\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n *
\n * @sample samples.collections.Collections.Filtering.filter\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.filter(predicate: (UByte) -> Boolean): List<UByte> {\n  return filterTo(ArrayList<UByte>(),
predicate)\n}\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n

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*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.filter(predicate: (UShort) -> Boolean): List<UShort> {\n    return filterTo(ArrayList<UShort>(),
predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param
[predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate
evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UIntArray.filterIndexed(predicate: (index: Int, UInt) -> Boolean): List<UInt> {\n    return
filterIndexedTo(ArrayList<UInt>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the
given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and
returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexed\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.filterIndexed(predicate: (index: Int, ULong) -> Boolean): List<ULong> {\n    return
filterIndexedTo(ArrayList<ULong>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the
given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and
returns the result of predicate evaluation
on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.filterIndexed(predicate: (index: Int, UByte) -> Boolean): List<UByte> {\n    return
filterIndexedTo(ArrayList<UByte>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the
given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and
returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexed\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.filterIndexed(predicate: (index: Int, UShort) -> Boolean): List<UShort> {\n    return
filterIndexedTo(ArrayList<UShort>(), predicate)\n}\n\n/**\n * Appends all elements matching the given [predicate]
to the given [destination].\n
 * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of
predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in UInt>> UIntArray.filterIndexedTo(destination: C, predicate: (index: Int, UInt) -> Boolean): C {
\n    forEachIndexed { index, element ->\n        if (predicate(index, element)) destination.add(element)\n    }\n    return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n *
@param [predicate] function that takes the index of an element and the element itself\n * and returns the result of
predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun <C : MutableCollection<in ULong>> ULongArray.filterIndexedTo(destination: C, predicate: (index: Int,
ULong) -> Boolean): C {\n    forEachIndexed { index, element ->\n        if (predicate(index, element))
destination.add(element)\n    }\n    return destination\n}\n\n/**\n * Appends all elements matching the given
[predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the
element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexedTo\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in UByte>> UByteArray.filterIndexedTo(destination: C, predicate: (index: Int, UByte) ->
Boolean): C {\n    forEachIndexed { index, element ->\n        if (predicate(index, element))
destination.add(element)\n    }\n    return destination\n}\n\n/**\n * Appends all
elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the
index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n *

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@sample samples.collections.Collections.Filtering.filterIndexedTo\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in UShort>> UShortArray.filterIndexedTo(destination: C, predicate: (index: Int, UShort) ->
Boolean): C {\n  forEachIndexed { index, element ->\n    if (predicate(index, element))
destination.add(element)\n  }\n  return destination\n}\n\n/**\n * Returns a list containing all elements not
matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.filterNot(predicate: (UInt) -> Boolean): List<UInt> {\n  return
filterNotTo(ArrayList<UInt>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the
given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.filterNot(predicate: (ULong) -> Boolean): List<ULong> {\n  return filterNotTo(ArrayList<ULong>(),
predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.filterNot(predicate: (UByte) -> Boolean): List<UByte> {\n  return filterNotTo(ArrayList<UByte>(),
predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UShortArray.filterNot(predicate: (UShort) -> Boolean): List<UShort> {\n  return
filterNotTo(ArrayList<UShort>(), predicate)\n}\n\n/**\n * Appends all elements not matching the given [predicate]
to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in UInt>> UIntArray.filterNotTo(destination: C, predicate: (UInt) -> Boolean): C {\n  for
(element in this) if (!predicate(element)) destination.add(element)\n  return destination\n}\n\n/**\n * Appends all
elements not matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in ULong>> ULongArray.filterNotTo(destination:
C, predicate: (ULong) -> Boolean): C {\n  for (element in this) if (!predicate(element)) destination.add(element)\n
return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given
[destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in UByte>> UByteArray.filterNotTo(destination: C, predicate: (UByte) -> Boolean): C {\n  for
(element in this) if (!predicate(element)) destination.add(element)\n  return destination\n}\n\n/**\n * Appends all
elements not matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in UShort>> UShortArray.filterNotTo(destination: C, predicate: (UShort) -> Boolean):
C {\n  for (element in this) if (!predicate(element)) destination.add(element)\n  return destination\n}\n\n/**\n *
Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in UInt>> UIntArray.filterTo(destination: C, predicate: (UInt) -> Boolean): C {\n  for (element
in this) if (predicate(element)) destination.add(element)\n  return destination\n}\n\n/**\n * Appends all elements
matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :

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MutableCollection<in ULong>> ULongArray.filterTo(destination: C, predicate: (ULong) -> Boolean): C {\n for
(element in this) if (predicate(element))
    destination.add(element)\n return destination\n}\n\n/**\n * Appends all elements matching the given [predicate]
to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in UByte>> UByteArray.filterTo(destination: C, predicate: (UByte) -> Boolean): C {\n for
(element in this) if (predicate(element)) destination.add(element)\n return destination\n}\n\n/**\n * Appends all
elements matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in UShort>> UShortArray.filterTo(destination: C, predicate: (UShort) -> Boolean): C {\n for
(element in this) if (predicate(element)) destination.add(element)\n return destination\n}\n\n/**\n
* Returns a list containing elements at indices in the specified [indices] range.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.slice(indices: IntRange):
List<UInt> {\n if (indices.isEmpty()) return listOf()\n return copyOfRange(indices.start, indices.endInclusive +
1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.slice(indices: IntRange):
List<ULong> {\n if (indices.isEmpty()) return listOf()\n return copyOfRange(indices.start, indices.endInclusive
+ 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.slice(indices: IntRange):
List<UByte> {\n if (indices.isEmpty()) return listOf()\n return copyOfRange(indices.start, indices.endInclusive
+ 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.slice(indices: IntRange):
List<UShort> {\n if (indices.isEmpty()) return listOf()\n return copyOfRange(indices.start, indices.endInclusive
+ 1).asList()\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.slice(indices: Iterable<Int>):
List<UInt> {\n val size = indices.collectionSizeOrDefault(10)\n if (size == 0) return emptyList()\n val list =
ArrayList<UInt>(size)\n for (index in indices) {\n list.add(get(index))\n }\n return list\n}\n\n/**\n *
Returns a list containing elements at specified [indices].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.slice(indices: Iterable<Int>):
List<ULong> {\n val size = indices.collectionSizeOrDefault(10)\n if (size ==
0) return emptyList()\n val list = ArrayList<ULong>(size)\n for (index in indices) {\n list.add(get(index))\n
}\n return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.slice(indices: Iterable<Int>):
List<UByte> {\n val size = indices.collectionSizeOrDefault(10)\n if (size == 0) return emptyList()\n val list =
ArrayList<UByte>(size)\n for (index in indices) {\n list.add(get(index))\n }\n return list\n}\n\n/**\n *
Returns a list containing elements at specified [indices].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.slice(indices: Iterable<Int>):
List<UShort> {\n val size = indices.collectionSizeOrDefault(10)\n if (size == 0) return emptyList()\n val list =
ArrayList<UShort>(size)\n for (index in indices) {\n list.add(get(index))\n }\n return list\n}\n\n/**\n *
Returns an array
containing elements of this array at specified [indices].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sliceArray(indices:
Collection<Int>): UIntArray {\n return UIntArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array
containing elements of this array at specified [indices].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sliceArray(indices:
Collection<Int>): ULongArray {\n return ULongArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array

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containing elements of this array at specified [indices].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sliceArray(indices:
Collection<Int>): UByteArray {\n    return UByteArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array
containing elements of this array at specified [indices].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sliceArray(indices:
Collection<Int>): UShortArray {\n
    return UShortArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing elements at indices in
the specified [indices] range.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UIntArray.sliceArray(indices: IntRange): UIntArray {\n    return UIntArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sliceArray(indices: IntRange):
ULongArray {\n    return ULongArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing
elements at indices in the specified [indices] range.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sliceArray(indices: IntRange):
UByteArray {\n    return UByteArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing
elements at indices in the specified [indices] range.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic
fun UShortArray.sliceArray(indices: IntRange): UShortArray {\n    return
UShortArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n *
@throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.take(n: Int): List<UInt> {\n
require(n >= 0) { "Requested element count $n is less than zero." }\n    if (n == 0) return emptyList()\n    if (n >=
size) return toList()\n    if (n == 1) return listOf(this[0])\n    var count = 0\n    val list = ArrayList<UInt>(n)\n    for
(item in this) {\n        list.add(item)\n        if (++count == n)\n            break\n    }\n    return list\n}\n\n/**\n * Returns
a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic
fun ULongArray.take(n: Int): List<ULong> {\n    require(n >= 0) { "Requested element count $n is less than
zero." }\n    if (n == 0) return emptyList()\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[0])\n
var count = 0\n    val list = ArrayList<ULong>(n)\n    for (item in this) {\n        list.add(item)\n        if (++count ==
n)\n            break\n    }\n    return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.take(n: Int): List<UByte> {\n
require(n >= 0) { "Requested element count $n is less than zero." }\n    if (n == 0) return emptyList()\n    if (n >=
size) return toList()\n    if (n == 1) return listOf(this[0])\n    var count = 0\n    val list = ArrayList<UByte>(n)\n
for (item in this) {\n        list.add(item)\n        if (++count == n)\n            break\n    }\n    return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.take(n: Int): List<UShort> {\n
require(n >= 0) { "Requested element count $n is less than zero." }\n    if (n == 0) return emptyList()\n    if (n >=
size) return toList()\n    if (n == 1) return listOf(this[0])\n    var count = 0\n    val list = ArrayList<UShort>(n)\n
for (item in this) {\n        list.add(item)\n        if (++count == n)\n            break\n    }\n    return list\n}\n\n/**\n * Returns
a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic

```

```

fun UIntArray.takeLast(n: Int): List<UInt> {
    require(n >= 0) { "Requested element count $n is less than zero." }
    if (n == 0) return emptyList()
    val size = size
    if (n >= size) return toList()
    if (n == 1) return listOf(this[size - 1])
    val list = ArrayList<UInt>(n)
    for (index in size - n until size)
        list.add(this[index])
    return list
}

/** Returns a list containing last [n] elements.
 * @throws IllegalArgumentException if [n] is negative.
 * @sample samples.collections.Collections.Transformations.take
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun ULongArray.takeLast(n: Int): List<ULong> {
    require(n >= 0) { "Requested element count $n is less than zero." }
    if (n == 0) return emptyList()
    val size = size
    if (n >= size) return toList()
    if (n == 1) return listOf(this[size - 1])
    val list = ArrayList<ULong>(n)
    for (index in size - n until size)
        list.add(this[index])
    return list
}

/** Returns a list containing last [n] elements.
 * @throws IllegalArgumentException if [n] is negative.
 * @sample samples.collections.Collections.Transformations.take
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun UByteArray.takeLast(n: Int): List<UByte> {
    require(n >= 0) { "Requested element count $n is less than zero." }
    if (n == 0) return emptyList()
    val size = size
    if (n >= size) return toList()
    if (n == 1) return listOf(this[size - 1])
    val list = ArrayList<UByte>(n)
    for (index in size - n until size)
        list.add(this[index])
    return list
}

/** Returns a list containing last [n] elements.
 * @throws IllegalArgumentException if [n] is negative.
 * @sample samples.collections.Collections.Transformations.take
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun UShortArray.takeLast(n: Int): List<UShort> {
    require(n >= 0) { "Requested element count $n is less than zero." }
    if (n == 0) return emptyList()
    val size = size
    if (n >= size) return toList()
    if (n == 1) return listOf(this[size - 1])
    val list = ArrayList<UShort>(n)
    for (index in size - n until size)
        list.add(this[index])
    return list
}

/** Returns a list containing last elements satisfying the given [predicate].
 * @sample samples.collections.Collections.Transformations.take
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun UIntArray.takeLastWhile(predicate: (UInt) -> Boolean): List<UInt> {
    for (index in lastIndex downTo 0)
        if (!predicate(this[index]))
            return drop(index + 1)
    return toList()
}

/** Returns a list containing last elements satisfying the given [predicate].
 * @sample samples.collections.Collections.Transformations.take
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun ULongArray.takeLastWhile(predicate: (ULong) -> Boolean): List<ULong> {
    for (index in lastIndex downTo 0)
        if (!predicate(this[index]))
            return drop(index + 1)
    return toList()
}

/** Returns a list containing last elements satisfying the given [predicate].
 * @sample samples.collections.Collections.Transformations.take
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun UByteArray.takeLastWhile(predicate: (UByte) -> Boolean): List<UByte> {
    for (index in lastIndex downTo 0)
        if (!predicate(this[index]))
            return drop(index + 1)
    return toList()
}

/** Returns a list containing last elements satisfying the given [predicate].
 * @sample samples.collections.Collections.Transformations.take
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun UShortArray.takeLastWhile(predicate: (UShort) -> Boolean): List<UShort> {
    for (index in lastIndex downTo 0)
        if (!predicate(this[index]))
            return drop(index + 1)
    return toList()
}

/** Returns a list containing first elements satisfying the given [predicate].
 * @sample samples.collections.Collections.Transformations.take
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun UIntArray.takeWhile(predicate: (UInt) -> Boolean): List<UInt> {
    val list = ArrayList<UInt>()
    for (item in this)
        if (!predicate(item))
            break
        list.add(item)
    return list
}

/** Returns a list

```

```

containing first elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.takeWhile(predicate: (ULong) -> Boolean): List<ULong> {\n val list =
ArrayList<ULong>()\n for (item in this) {\n if (!predicate(item))\n break\n list.add(item)\n }\n
return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.takeWhile(predicate: (UByte) -> Boolean): List<UByte> {\n val list = ArrayList<UByte>()\n for
(item in this) {\n if (!predicate(item))\n break\n list.add(item)\n }\n return list\n}\n\n/**\n *
Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UShortArray.takeWhile(predicate: (UShort) -> Boolean): List<UShort> {\n val list =
ArrayList<UShort>()\n for (item in this) {\n if (!predicate(item))\n break\n list.add(item)\n }\n
return list\n}\n\n/**\n * Reverses elements in the array in-place.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.reverse(): Unit {\n storage.reverse()\n}\n\n/**\n * Reverses elements in the array in-place.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.reverse(): Unit {\n storage.reverse()\n}\n\n/**\n * Reverses elements in the array in-place.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.reverse(): Unit {\n storage.reverse()\n}\n\n/**\n * Reverses elements in the array in-place.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UShortArray.reverse(): Unit {\n storage.reverse()\n}\n\n/**\n * Reverses elements of the array in the
specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param
toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is
less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if
[fromIndex] is greater than [toIndex].\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n storage.reverse(fromIndex, toIndex)\n}\n\n/**\n *
Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range
(inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws
IndexOutOfBoundsException if [fromIndex] is
less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if
[fromIndex] is greater than [toIndex].\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n storage.reverse(fromIndex, toIndex)\n}\n\n/**\n *
Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range
(inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws
IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n *
@throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n storage.reverse(fromIndex, toIndex)\n}\n\n/**\n *
Reverses elements
of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to
reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws
IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n *
@throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n

```

```

*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n    storage.reverse(fromIndex, toIndex)\n}\n\n/**\n *
Returns a list with elements in reversed order.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic
fun UIntArray.reversed(): List<UInt> {\n    if (isEmpty()) return emptyList()\n    val list = toMutableList()\n
list.reverse()\n    return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic
fun ULongArray.reversed(): List<ULong> {\n    if (isEmpty()) return emptyList()\n    val list = toMutableList()\n
list.reverse()\n    return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.reversed(): List<UByte> {\n
if (isEmpty()) return emptyList()\n    val list = toMutableList()\n    list.reverse()\n    return list\n}\n\n/**\n * Returns
a list with elements in reversed order.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UShortArray.reversed(): List<UShort> {\n    if (isEmpty()) return emptyList()\n    val list = toMutableList()\n
list.reverse()\n    return list\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.reversedArray(): UIntArray {\n    return UIntArray(storage.reversedArray())\n}\n\n/**\n * Returns an
array
with elements of this array in reversed order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.reversedArray(): ULongArray {\n    return ULongArray(storage.reversedArray())\n}\n\n/**\n *
Returns an array with elements of this array in reversed order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.reversedArray(): UByteArray {\n    return UByteArray(storage.reversedArray())\n}\n\n/**\n * Returns
an array with elements of this array in reversed order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.reversedArray(): UShortArray {\n    return UShortArray(storage.reversedArray())\n}\n\n/**\n *
Randomly shuffles elements in this array in-place.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.shuffle(): Unit {\n
shuffle(Random)\n}\n\n/**\n * Randomly shuffles
elements in this array in-place.\n *\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun
ULongArray.shuffle(): Unit {\n    shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-
place.\n *\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.shuffle(): Unit {\n
shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.shuffle(): Unit {\n
shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random]
instance as the source of randomness.\n * \n * See:
https://en.wikipedia.org/wiki/Fisher%20%80%93Yates\_shuffle#The\_modern\_algorithm\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.shuffle(random: Random): Unit
{\n    for (i in lastIndex downTo 1) {\n        val j = random.nextInt(i + 1)\n        val copy = this[i]\n        this[i] =
this[j]\n        this[j]
= copy\n    }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance
as the source of randomness.\n * \n * See:
https://en.wikipedia.org/wiki/Fisher%20%80%93Yates\_shuffle#The\_modern\_algorithm\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.shuffle(random: Random):
Unit {\n    for (i in lastIndex downTo 1) {\n        val j = random.nextInt(i + 1)\n        val copy = this[i]\n        this[i] =
this[j]\n        this[j] = copy\n    }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified
[random] instance as the source of randomness.\n * \n * See:
https://en.wikipedia.org/wiki/Fisher%20%80%93Yates\_shuffle#The\_modern\_algorithm\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.shuffle(random: Random):

```

```

Unit {
    for (i in lastIndex downTo 1) {
        val j = random.nextInt(i + 1)
        val copy = this[i]
        this[i] =
        this[j]
        this[j] = copy
    }
}

Randomly shuffles elements in this array in-place using the specified [random] instance as the
source of randomness. See:
https://en.wikipedia.org/wiki/Fisher%20%80%93Yates\_shuffle#The\_modern\_algorithm

@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
public fun UShortArray.shuffle(random: Random):
Unit {
    for (i in lastIndex downTo 1) {
        val j = random.nextInt(i + 1)
        val copy = this[i]
        this[i] =
        this[j]
        this[j] = copy
    }
}

Sorts elements in the array in-place descending according to their
natural sort order.

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun
UIntArray.sortDescending(): Unit {
    if (size > 1) {
        sort()
        reverse()
    }
}

Sorts elements
in the array in-place descending according to their natural sort order.

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun ULongArray.sortDescending(): Unit {
    if
(size > 1)
{
        sort()
        reverse()
    }
}

Sorts elements in the array in-place descending according to their
natural sort order.

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun
UByteArray.sortDescending(): Unit {
    if (size > 1) {
        sort()
        reverse()
    }
}

Sorts
elements in the array in-place descending according to their natural sort order.

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun UShortArray.sortDescending(): Unit {
    if
(size > 1) {
        sort()
        reverse()
    }
}

Returns a list of all elements sorted according to their
natural sort order.

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun UIntArray.sorted():
List<UInt> {
    return copyOf().apply { sort() }.asList()
}

Returns a list of all elements sorted
according to their natural sort order.

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun
ULongArray.sorted():
List<ULong> {
    return copyOf().apply { sort() }.asList()
}

Returns a list of all elements sorted
according to their natural sort order.

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun
UByteArray.sorted(): List<UByte> {
    return copyOf().apply { sort() }.asList()
}

Returns a list of all
elements sorted according to their natural sort order.

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun UShortArray.sorted(): List<UShort> {
    return copyOf().apply { sort() }.asList()
}

Returns an array with all elements of this array sorted
according to their natural sort order.

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun
UIntArray.sortedArray(): UIntArray {
    if (isEmpty()) return this
    return this.copyOf().apply { sort()
}
}

Returns an array with all elements of this array sorted according to their natural sort order.

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public
fun ULongArray.sortedArray(): ULongArray {
    if (isEmpty()) return this
    return this.copyOf().apply { sort()
}
}

Returns an array with all elements of this array sorted according to their natural sort order.

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun UByteArray.sortedArray(): UByteArray {
    if (isEmpty()) return this
    return this.copyOf().apply { sort() }
}

Returns an array with all elements
of this array sorted according to their natural sort order.

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun UShortArray.sortedArray(): UShortArray
{
    if (isEmpty()) return this
    return this.copyOf().apply { sort() }
}

Returns an array with all
elements of this array sorted descending according to their natural sort order.

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun UIntArray.sortedArrayDescending():
UIntArray {
    if (isEmpty()) return this
    return this.copyOf().apply
{
        sortDescending()
    }
}

Returns an array with all elements of this array sorted descending according to
their natural sort order.

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun
ULongArray.sortedArrayDescending(): ULongArray {
    if (isEmpty()) return this
    return this.copyOf().apply {
        sortDescending()
    }
}

Returns an array with all elements of this array sorted descending according to
their natural sort order.

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun

```

```

UByteArray.sortedArrayDescending(): UByteArray { \n  if (isEmpty()) return this\n  return this.copyOf().apply {
sortDescending() } \n} \n \n /** \n * Returns an array with all elements of this array sorted descending according to
their natural sort order. \n * \n @SinceKotlin("1.3") \n @ExperimentalUnsignedTypes \n public fun
UShortArray.sortedArrayDescending(): UShortArray { \n  if (isEmpty()) return this\n  return this.copyOf().apply {
sortDescending() } \n} \n \n /** \n
* Returns a list of all elements sorted descending according to their natural sort order. \n * \n * The sort is _stable_.
It means that equal elements preserve their order relative to each other after sorting. \n
* \n @SinceKotlin("1.3") \n @ExperimentalUnsignedTypes \n public fun UIntArray.sortedDescending(): List<UInt>
{ \n  return copyOf().apply { sort() }.reversed() \n} \n \n /** \n * Returns a list of all elements sorted descending
according to their natural sort order. \n * \n * The sort is _stable_. It means that equal elements preserve their order
relative to each other after sorting. \n * \n @SinceKotlin("1.3") \n @ExperimentalUnsignedTypes \n public fun
ULongArray.sortedDescending(): List<ULong> { \n  return copyOf().apply { sort() }.reversed() \n} \n \n /** \n *
Returns a list of all elements sorted descending according to their natural sort order. \n * \n * The sort is _stable_. It
means that equal elements preserve their order relative to each other after sorting. \n
* \n @SinceKotlin("1.3") \n @ExperimentalUnsignedTypes \n public
fun UByteArray.sortedDescending(): List<UByte> { \n  return copyOf().apply { sort() }.reversed() \n} \n \n /** \n *
Returns a list of all elements sorted descending according to their natural sort order. \n * \n * The sort is _stable_. It
means that equal elements preserve their order relative to each other after sorting. \n
* \n @SinceKotlin("1.3") \n @ExperimentalUnsignedTypes \n public fun UShortArray.sortedDescending():
List<UShort> { \n  return copyOf().apply { sort() }.reversed() \n} \n \n /** \n * Returns an array of type [ByteArray],
which is a view of this array where each element is a signed reinterpretation \n * of the corresponding element of this
array. \n * \n @SinceKotlin("1.3") \n @ExperimentalUnsignedTypes \n @kotlin.internal.InlineOnly \n public inline fun
UByteArray.asByteArray(): ByteArray { \n  return storage \n} \n \n /** \n * Returns an array of type [IntArray], which
is a view of this array where each element is a signed reinterpretation \n
* of the corresponding element of this array. \n
* \n @SinceKotlin("1.3") \n @ExperimentalUnsignedTypes \n @kotlin.internal.InlineOnly \n public inline fun
UIntArray.asIntArray(): IntArray { \n  return storage \n} \n \n /** \n * Returns a [List] that wraps the original array. \n
* \n @SinceKotlin("1.3") \n @ExperimentalUnsignedTypes \n public expect fun UIntArray.asList():
List<UInt> \n \n /** \n * Returns a [List] that wraps the original array. \n
* \n @SinceKotlin("1.3") \n @ExperimentalUnsignedTypes \n public expect fun ULongArray.asList():
List<ULong> \n \n /** \n * Returns a [List] that wraps the original array. \n
* \n @SinceKotlin("1.3") \n @ExperimentalUnsignedTypes \n public expect fun UByteArray.asList():
List<UByte> \n \n /** \n * Returns a [List] that wraps the original array. \n
* \n @SinceKotlin("1.3") \n @ExperimentalUnsignedTypes \n public expect fun UShortArray.asList():
List<UShort> \n \n /** \n * Returns an array of type [LongArray], which is a view of this array where each element is
a signed reinterpretation \n
* of the corresponding element of this array. \n
* \n @SinceKotlin("1.3") \n @ExperimentalUnsignedTypes \n @kotlin.internal.InlineOnly \n public inline fun
ULongArray.asLongArray(): LongArray { \n  return storage \n} \n \n /** \n * Returns an array of type [ShortArray],
which is a view of this array where each element is a signed reinterpretation \n * of the corresponding element of this
array. \n * \n @SinceKotlin("1.3") \n @ExperimentalUnsignedTypes \n @kotlin.internal.InlineOnly \n public inline fun
UShortArray.asShortArray(): ShortArray { \n  return storage \n} \n \n /** \n * Returns an array of type [UByteArray],
which is a view of this array where each element is an unsigned reinterpretation \n * of the corresponding element of
this array. \n * \n @SinceKotlin("1.3") \n @ExperimentalUnsignedTypes \n @kotlin.internal.InlineOnly \n public inline
fun ByteArray.asUByteArray(): UByteArray { \n  return UByteArray(this) \n} \n \n /** \n * Returns an array of type
[UIntArray], which is a view of this array where
each element is an unsigned reinterpretation \n * of the corresponding element of this array. \n
* \n @SinceKotlin("1.3") \n @ExperimentalUnsignedTypes \n @kotlin.internal.InlineOnly \n public inline fun

```

```

IntArray.asUIntArray(): UIntArray {
    return UIntArray(this)
}

/**
 * Returns an array of type [ULongArray], which is a view of this array where each element is an unsigned reinterpretation of the corresponding element of this array.
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun
LongArray.asULongArray(): ULongArray {
    return ULongArray(this)
}

/**
 * Returns an array of type [UShortArray], which is a view of this array where each element is an unsigned reinterpretation of the corresponding element of this array.
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun
ShortArray.asUShortArray(): UShortArray {
    return UShortArray(this)
}

/**
 * Returns `true` if the two specified arrays are *structurally* equal to one another, i.e. contain the same number of the same elements in the same order.
 *
 * @Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")
 * @SinceKotlin("1.3")
 * @DeprecatedSinceKotlin(hiddenSince = "1.4")
 * @ExperimentalUnsignedTypes
 * public infix fun UIntArray.contentEquals(other: UIntArray): Boolean {
 *     return this.contentEquals(other)
 * }

/**
 * Returns `true` if the two specified arrays are *structurally* equal to one another, i.e. contain the same number of the same elements in the same order.
 *
 * @Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")
 * @SinceKotlin("1.3")
 * @DeprecatedSinceKotlin(hiddenSince = "1.4")
 * @ExperimentalUnsignedTypes
 * public infix fun ULongArray.contentEquals(other: ULongArray): Boolean {
 *     return this.contentEquals(other)
 * }

/**
 * Returns `true` if the two specified arrays are *structurally* equal to one another, i.e. contain the same number of the same elements in the same order.
 *
 * @Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")
 * @SinceKotlin("1.3")
 * @DeprecatedSinceKotlin(hiddenSince = "1.4")
 * @ExperimentalUnsignedTypes
 * public infix fun UByteArray.contentEquals(other: UByteArray): Boolean {
 *     return this.contentEquals(other)
 * }

/**
 * Returns `true` if the two specified arrays are *structurally* equal to one another, i.e. contain the same number of the same elements in the same order.
 *
 * @Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")
 * @SinceKotlin("1.3")
 * @DeprecatedSinceKotlin(hiddenSince = "1.4")
 * @ExperimentalUnsignedTypes
 * public infix fun UShortArray.contentEquals(other: UShortArray): Boolean {
 *     return this.contentEquals(other)
 * }

/**
 * Returns `true` if the two specified arrays are *structurally* equal to one another, i.e. contain the same number of the same elements in the same order.
 *
 * @SinceKotlin("1.4")
 * @ExperimentalUnsignedTypes
 * public
 * infix fun UIntArray?.contentEquals(other: UIntArray?): Boolean {
 *     return
 *     this?.storage.contentEquals(other?.storage)
 * }

/**
 * Returns `true` if the two specified arrays are *structurally* equal to one another, i.e. contain the same number of the same elements in the same order.
 *
 * @SinceKotlin("1.4")
 * @ExperimentalUnsignedTypes
 * public infix fun
 * ULongArray?.contentEquals(other: ULongArray?): Boolean {
 *     return this?.storage.contentEquals(other?.storage)
 * }

/**
 * Returns `true` if the two specified arrays are *structurally* equal to one another, i.e. contain the same number of the same elements in the same order.
 *
 * @SinceKotlin("1.4")
 * @ExperimentalUnsignedTypes
 * public infix fun
 * UByteArray?.contentEquals(other: UByteArray?): Boolean {
 *     return
 *     this?.storage.contentEquals(other?.storage)
 * }

/**
 * Returns `true` if the two specified arrays are *structurally* equal to one another, i.e. contain the same number of the same elements in the same order.
 *
 * @SinceKotlin("1.4")
 * @ExperimentalUnsignedTypes
 * public infix fun
 * UShortArray?.contentEquals(other: UShortArray?): Boolean {
 *     return
 *     this?.storage.contentEquals(other?.storage)
 * }

/**
 * Returns a hash code based on the contents of this array as if it is [List].
 *
 * @Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")
 * @SinceKotlin("1.3")
 * @DeprecatedSinceKotlin(hiddenSince = "1.4")
 * @ExperimentalUnsignedTypes
 * public fun UIntArray.contentHashCode(): Int {
 *     return
 *     this.contentHashCode()
 * }

/**
 * Returns a hash code based on the contents of this array as if it is [List].
 */

```





```

    {
        return this?.joinToString(", ", "[", "]") ?: "null"
    }
}

Returns a string representation of the contents of the specified array as if it is [List].

@sample
samples.collections.Arrays.ContentOperations.contentToString

@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
public fun UByteArray?.contentToString(): String {
    return this?.joinToString(", ", "[", "]") ?: "null"
}

Returns a string representation of the contents of the specified array as if it is [List].

@sample
samples.collections.Arrays.ContentOperations.contentToString

@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
public fun UShortArray?.contentToString(): String {
    return this?.joinToString(", ", "[", "]") ?: "null"
}

Copies this array or its subrange into the [destination] array and returns that array. It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.

@param destination the array to copy to.
@param destinationOffset the position in the [destination] array to copy to, 0 by default.
@param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.
@param endIndex the end (exclusive) of the subrange to copy, size of this array by default.

@throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.
@throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset], or when that index is out of the [destination] array indices range.

@return the [destination] array.

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun
UIntArray.copyInto(destination: UIntArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): UIntArray {
    storage.copyInto(destination.storage, destinationOffset, startIndex, endIndex)
    return destination
}

Copies this array or its subrange into the [destination] array and returns that array. It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.

@param destination the array to copy to.
@param destinationOffset the position in the [destination] array to copy to, 0 by default.
@param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.
@param endIndex the end (exclusive) of the subrange to copy, size of this array by default.

@throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.
@throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset], or when that index is out of the [destination] array indices range.

@return the [destination] array.

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun
ULongArray.copyInto(destination: ULongArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): ULongArray {
    storage.copyInto(destination.storage, destinationOffset, startIndex, endIndex)
    return destination
}

Copies this array or its subrange into the [destination] array and returns that array. It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.

@param destination the array to copy to.
@param destinationOffset the position in the [destination] array to copy to, 0 by default.
@param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.
@param endIndex the end (exclusive) of the subrange to copy, size of this array by default.

@throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.
@throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset], or when that index is out of the [destination] array indices range.

@return the [destination] array.

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun
UByteArray.copyInto(destination: UByteArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): UByteArray {
    storage.copyInto(destination.storage, destinationOffset, startIndex, endIndex)
    return destination
}

Copies this array or its subrange into the [destination] array and returns that array.

```

It's allowed to pass the same array in the [destination] and even

specify the subrange so that it overlaps with the destination range.  
@param destination the array to copy to.  
@param destinationOffset the position in the [destination] array to copy to, 0 by default.  
@param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.  
@param endIndex the end (exclusive) of the subrange to copy, size of this array by default.  
@throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.  
@throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset], or when that index is out of the [destination] array indices range.  
@return the [destination] array.

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun  
UShortArray.copyInto(destination: UShortArray, destinationOffset:
```

```
Int = 0, startIndex: Int = 0, endIndex: Int = size): UShortArray {\n    storage.copyInto(destination.storage,  
destinationOffset, startIndex, endIndex)\n    return destination\n}\n/**\n * Returns new array which is a copy of  
the original array.\n * @sample samples.collections.Arrays.CopyOfOperations.copyOf
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun  
UIntArray.copyOf(): UIntArray {\n    return UIntArray(storage.copyOf())\n}\n/**\n * Returns new array which is  
a copy of the original array.\n * @sample samples.collections.Arrays.CopyOfOperations.copyOf
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun  
ULongArray.copyOf(): ULongArray {\n    return ULongArray(storage.copyOf())\n}\n/**\n * Returns new array  
which is a copy of the original array.\n * @sample samples.collections.Arrays.CopyOfOperations.copyOf
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic  
inline fun UByteArray.copyOf(): UByteArray {\n    return UByteArray(storage.copyOf())\n}\n/**\n * Returns  
new array which is a copy of the original array.\n * @sample  
samples.collections.Arrays.CopyOfOperations.copyOf
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun  
UShortArray.copyOfOf(): UShortArray {\n    return UShortArray(storage.copyOfOf())\n}\n/**\n * Returns new array  
which is a copy of the original array, resized to the given [newSize].  
The copy is either truncated or padded at  
the end with zero values if necessary.  
- If [newSize] is less than the size of the original array, the copy array  
is truncated to the [newSize].  
- If [newSize] is greater than the size of the original array, the extra elements in the  
copy array are filled with zero values.
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun  
UIntArray.copyOfOf(newSize:
```

```
Int): UIntArray {\n    return UIntArray(storage.copyOfOf(newSize))\n}\n/**\n * Returns new array which is a copy  
of the original array, resized to the given [newSize].  
The copy is either truncated or padded at the end with zero  
values if necessary.  
- If [newSize] is less than the size of the original array, the copy array is truncated to the  
[newSize].  
- If [newSize] is greater than the size of the original array, the extra elements in the copy array are  
filled with zero values.
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun  
ULongArray.copyOfOf(newSize: Int): ULongArray {\n    return ULongArray(storage.copyOfOf(newSize))\n}\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].  
The copy is either  
truncated or padded at the end with zero values if necessary.  
- If [newSize] is less than the size of the  
original array, the copy array is truncated
```

```
to the [newSize].  
- If [newSize] is greater than the size of the original array, the extra elements in the copy array  
are filled with zero values.
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun  
UByteArray.copyOfOf(newSize: Int): UByteArray {\n    return UByteArray(storage.copyOfOf(newSize))\n}\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].  
The copy is either  
truncated or padded at the end with zero values if necessary.  
- If [newSize] is less than the size of the
```

original array, the copy array is truncated to the [newSize].\n \* - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun  
UShortArray.copyOf(newSize: Int): UShortArray {\n    return UShortArray(storage.copyOf(newSize))\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun  
UIntArray.copyOfRange(fromIndex: Int, toIndex: Int): UIntArray {\n    return  
UIntArray(storage.copyOfRange(fromIndex, toIndex))\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun  
ULongArray.copyOfRange(fromIndex: Int, toIndex: Int): ULongArray {\n    return  
ULongArray(storage.copyOfRange(fromIndex, toIndex))\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws  
IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun  
UByteArray.copyOfRange(fromIndex: Int, toIndex: Int): UByteArray {\n    return  
UByteArray(storage.copyOfRange(fromIndex, toIndex))\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws  
IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun  
UShortArray.copyOfRange(fromIndex: Int, toIndex: Int): UShortArray {\n    return  
UShortArray(storage.copyOfRange(fromIndex, toIndex))\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws  
IndexOutOfBoundsException if [fromIndex] is less than zero  
or [toIndex] is greater than the size of this array.\n * @throws  
IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.fill(element: UInt, fromIndex: Int = 0, toIndex: Int = size): Unit {\n    storage.fill(element.toInt(), fromIndex, toIndex)\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws  
IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws  
IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.fill(element: ULong, fromIndex: Int = 0, toIndex: Int = size): Unit {\n    storage.fill(element.toLong(), fromIndex, toIndex)\n}\n\n/**\n
```

```
 * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws  
IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater
```

than the size of this array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n

```

*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.fill(element: UByte,
fromIndex: Int = 0, toIndex: Int = size): Unit {\n    storage.fill(element.toByte(), fromIndex, toIndex)\n}\n\n/**\n *
Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range
(inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by
default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less
than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is
greater than [toIndex].\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UShortArray.fill(element: UShort, fromIndex: Int = 0, toIndex: Int = size): Unit {\n    storage.fill(element.toShort(),
fromIndex, toIndex)\n}\n\n/**\n * Returns the range of valid indices for the array.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic inline val UIntArray.indices: IntRange\n    get()
= storage.indices\n\n/**\n * Returns the range of valid indices for the array.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic inline val ULongArray.indices: IntRange\n    get() = storage.indices\n\n/**\n * Returns the range of valid indices for the array.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic inline val UByteArray.indices: IntRange\n    get() = storage.indices\n\n/**\n * Returns the range of valid indices for the array.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic inline val UShortArray.indices: IntRange\n    get() = storage.indices\n\n/**\n * Returns the last valid index for the array.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic inline val UIntArray.lastIndex: Int\n    get() =
storage.lastIndex\n\n/**\n * Returns the last valid index for the array.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic inline val ULongArray.lastIndex: Int\n    get() =
storage.lastIndex\n\n/**\n * Returns the last valid index for the array.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic inline val UByteArray.lastIndex: Int\n    get() =
storage.lastIndex\n\n/**\n * Returns the last valid index for the array.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic inline val UShortArray.lastIndex: Int\n    get() =
storage.lastIndex\n\n/**\n * Returns an array containing all elements of the original array and then the given
[element].\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline operator fun UIntArray.plus(element: UInt): UIntArray {\n    return UIntArray(storage +
element.toInt())\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given
[element].\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
operator fun ULongArray.plus(element: ULong): ULongArray {\n    return ULongArray(storage +
element.toLong())\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given
[element].\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
operator fun UByteArray.plus(element: UByte): UByteArray {\n    return UByteArray(storage +
element.toByte())\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given
[element].\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline operator fun UShortArray.plus(element: UShort): UShortArray {\n    return UShortArray(storage +
element.toShort())\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements
of the given [elements] collection.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic operator
fun UIntArray.plus(elements: Collection<UInt>): UIntArray {\n    var index = size\n    val result =
storage.copyOfOf(size + elements.size)\n    for (element in elements) result[index++] = element.toInt()\n    return
UIntArray(result)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements
of the given [elements] collection.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic operator
fun ULongArray.plus(elements: Collection<ULong>): ULongArray {\n    var index = size\n    val result =
storage.copyOfOf(size + elements.size)\n    for (element in elements) result[index++] = element.toLong()\n    return
ULongArray(result)\n}\n\n/**\n * Returns an array containing all elements of the original array and then
all elements of the given [elements] collection.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic operator fun UByteArray.plus(elements:

```

```

Collection<UByte>): UByteArray {
    var index = size
    val result = storage.copyOf(size + elements.size)
    for (element in elements) result[index++] = element.toByte()
    return UByteArray(result)
}

/**
 * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public operator fun UShortArray.plus(elements: Collection<UShort>): UShortArray {
    var index = size
    val result = storage.copyOf(size + elements.size)
    for (element in elements) result[index++] = element.toShort()
    return UShortArray(result)
}

/**
 * Returns an array containing all elements of the original array and then all elements of the given [elements] array.
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline operator fun UIntArray.plus(elements: UIntArray): UIntArray {
    return UIntArray(storage + elements.storage)
}

/**
 * Returns an array containing all elements of the original array and then all elements of the given [elements] array.
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline operator fun ULongArray.plus(elements: ULongArray): ULongArray {
    return ULongArray(storage + elements.storage)
}

/**
 * Returns an array containing all elements of the original array and then all elements of the given [elements] array.
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline operator fun UByteArray.plus(elements: UByteArray): UByteArray {
    return UByteArray(storage + elements.storage)
}

/**
 * Returns an array containing all elements of the original array and then all elements of the given [elements] array.
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline operator fun UShortArray.plus(elements: UShortArray): UShortArray {
    return UShortArray(storage + elements.storage)
}

/**
 * Sorts the array in-place.
 * @sample samples.collections.Arrays.Sorting.sortArray
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun UIntArray.sort(): Unit {
    if (size > 1) sortArray(this, 0, size)
}

/**
 * Sorts the array in-place.
 * @sample samples.collections.Arrays.Sorting.sortArray
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun ULongArray.sort(): Unit {
    if (size > 1) sortArray(this, 0, size)
}

/**
 * Sorts the array in-place.
 * @sample samples.collections.Arrays.Sorting.sortArray
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun UByteArray.sort(): Unit {
    if (size > 1) sortArray(this, 0, size)
}

/**
 * Sorts the array in-place.
 * @sample samples.collections.Arrays.Sorting.sortArray
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun UShortArray.sort(): Unit {
    if (size > 1) sortArray(this, 0, size)
}

/**
 * Sorts a range in the array in-place.
 * @param fromIndex the start of the range (inclusive) to sort, 0 by default.
 * @param toIndex the end of the range (exclusive) to sort, size of this array by default.
 * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.
 * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].
 * @sample samples.collections.Arrays.Sorting.sortRangeOfArray
 */
@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
public fun UIntArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {
    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)
    sortArray(this, fromIndex, toIndex)
}

/**
 * Sorts a range in the array in-place.
 * @param fromIndex the start of the range (inclusive) to sort, 0 by default.
 * @param toIndex the end of the range (exclusive) to sort, size of this array by default.
 * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.
 * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].
 * @sample samples.collections.Arrays.Sorting.sortRangeOfArray
 */
@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
public fun ULongArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {
    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)
    sortArray(this, fromIndex, toIndex)
}

/**
 * Sorts a range in the array in-place.
 * @param fromIndex the start of the range (inclusive) to sort, 0 by default.
 * @param toIndex the end of the range (exclusive) to sort, size of this array
 */

```

by default.\n \* \n \* @throws IndexOutOfBoundsException  
if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws  
IllegalArgumentException if [fromIndex] is greater than [toIndex].\n \* \n \* @sample  
samples.collections.Arrays.Sorting.sortRangeOfArray\n

```
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sort(fromIndex: Int = 0,
toIndex: Int = size): Unit {\n    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    sortArray(this,
fromIndex, toIndex)\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the
range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array
by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater
than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n *
@sample samples.collections.Arrays.Sorting.sortRangeOfArray\n
```

```
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic
fun UShortArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    sortArray(this, fromIndex, toIndex)\n}\n\n/**\n *
Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their
natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end
of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or
[toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than
[toIndex].\n *\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun
UIntArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n    sort(fromIndex, toIndex)\n    reverse(fromIndex,
toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements
are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range
(inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws
IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n *
@throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
```

```
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sortDescending(fromIndex:
Int, toIndex: Int): Unit {\n    sort(fromIndex, toIndex)\n    reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements
of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort
order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range
(exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is
greater than the size
of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
```

```
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sortDescending(fromIndex:
Int, toIndex: Int): Unit {\n    sort(fromIndex, toIndex)\n    reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements
of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort
order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range
(exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is
greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
```

```
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sortDescending(fromIndex:
Int, toIndex: Int): Unit {\n    sort(fromIndex, toIndex)\n    reverse(fromIndex, toIndex)\n}\n\n/**\n * Returns
an array of type [ByteArray], which is a copy of this array where each element is a signed reinterpretation\n * of the
corresponding element of this array.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.toByteArray(): ByteArray {\n    return storage.copyOf()\n}\n\n/**\n * Returns an array of type
[IntArray], which is a copy of this array where each element is a signed reinterpretation\n * of the corresponding
element of this array.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.toIntArray(): IntArray {\n    return storage.copyOf()\n}\n\n/**\n * Returns an array of type [LongArray],
```

which is a copy of this array where each element is a signed reinterpretation of the corresponding element of this array.

```

* Since Kotlin("1.3") ExperimentalUnsignedTypes @kotlin.internal.InlineOnly public inline fun
UByteArray.toByteArray(): UByteArray {
    return storage.copyOf()
}

```

\* Returns an array of type [UByteArray], which is a copy of this array where each element is a signed reinterpretation of the corresponding element of this array.

```

* Since Kotlin("1.3") ExperimentalUnsignedTypes @kotlin.internal.InlineOnly public inline fun
UShortArray.toShortArray(): ShortArray {
    return storage.copyOf()
}

```

\* Returns a \*typed\* object array containing all of the elements of this primitive array.

```

* Since Kotlin("1.3") ExperimentalUnsignedTypes public fun
UIntArray.toArray(): Array<UInt> {
    return Array(size) { index -> this[index] }
}

```

\* Returns a \*typed\* object array containing all of the elements of this primitive array.

```

* Since Kotlin("1.3") ExperimentalUnsignedTypes public fun
UByteArray.toArray(): Array<UByte> {
    return Array(size) { index -> this[index] }
}

```

\* Returns a \*typed\* object array containing all of the elements of this primitive array.

```

* Since Kotlin("1.3") ExperimentalUnsignedTypes public fun
UShortArray.toArray(): Array<UShort> {
    return Array(size) { index -> this[index] }
}

```

\* Returns an array of UByte containing all of the elements of this generic array.

```

* Since Kotlin("1.3") ExperimentalUnsignedTypes public fun
Array<out UByte>.toUByteArray(): UByteArray {
    return UByteArray(size) { index -> this[index] }
}

```

\* Returns an array of type [UByteArray], which is a copy of this array where each element is an unsigned reinterpretation of the corresponding element of this array.

```

* Since Kotlin("1.3") ExperimentalUnsignedTypes @kotlin.internal.InlineOnly public inline fun
ByteArray.toByteArray(): UByteArray {
    return UByteArray(this.copyOf())
}

```

\* Returns an array of UInt containing all of the elements of this generic array.

```

* Since Kotlin("1.3") ExperimentalUnsignedTypes public fun
Array<out UInt>.toUIntArray(): UIntArray {
    return UIntArray(size) { index -> this[index] }
}

```

\* Returns an array of type [UIntArray], which is a copy of this array where each element is an unsigned reinterpretation of the corresponding element of this array.

```

* Since Kotlin("1.3") ExperimentalUnsignedTypes @kotlin.internal.InlineOnly public inline fun
IntArray.toUIntArray(): UIntArray {
    return UIntArray(this.copyOf())
}

```

\* Returns an array of ULong containing all of the elements of this generic array.

```

* Since Kotlin("1.3") ExperimentalUnsignedTypes public fun
Array<out ULong>.toULongArray(): ULongArray {
    return ULongArray(size) { index -> this[index] }
}

```

\* Returns an array of type [ULongArray], which is a copy of this array where each element is an unsigned reinterpretation of the corresponding element of this array.

```

* Since Kotlin("1.3") ExperimentalUnsignedTypes @kotlin.internal.InlineOnly public inline fun
LongArray.toULongArray(): ULongArray {
    return ULongArray(this.copyOf())
}

```

\* Returns an array of UShort containing all of the elements of this generic array.

```

* Since Kotlin("1.3") ExperimentalUnsignedTypes public fun
Array<out UShort>.toUShortArray(): UShortArray {
    return UShortArray(size) { index -> this[index] }
}

```

\* Returns an array of type [UShortArray], which is a copy of this array where each element is an unsigned reinterpretation of the corresponding element of this array.

```

* Since Kotlin("1.3") ExperimentalUnsignedTypes @kotlin.internal.InlineOnly public inline fun
ShortArray.toUShortArray(): UShortArray {
    return UShortArray(this.copyOf())
}

```

\* Returns a [Map] where keys are elements from the given array and values are produced by the [valueSelector] function applied to each element.

\* If any two elements are equal, the last one gets added to the map.

\* The returned map preserves the entry iteration order of the original array.

```

\n * @sample samples.collections.Collections.Transformations.associateWith\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>
UIntArray.associateWith(valueSelector: (UInt) -> V): Map<UInt, V> {\n    val result = LinkedHashMap<UInt,
V>(mapCapacity(size).coerceAtLeast(16))\n    return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a
[Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function
applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The
returned map preserves the entry iteration order of the original array.\n * \n * @sample
samples.collections.Collections.Transformations.associateWith\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>
ULongArray.associateWith(valueSelector: (ULong) -> V): Map<ULong, V> {\n    val result =
LinkedHashMap<ULong, V>(mapCapacity(size).coerceAtLeast(16))\n    return associateWithTo(result,
valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n *
produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one
gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n *
@sample samples.collections.Collections.Transformations.associateWith\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>
UByteArray.associateWith(valueSelector: (UByte) -> V): Map<UByte, V> {\n    val result =
LinkedHashMap<UByte, V>(mapCapacity(size).coerceAtLeast(16))\n    return associateWithTo(result,
valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n *
produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one
gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n *
@sample samples.collections.Collections.Transformations.associateWith\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>
UShortArray.associateWith(valueSelector: (UShort) -> V): Map<UShort, V> {\n    val result =
LinkedHashMap<UShort, V>(mapCapacity(size).coerceAtLeast(16))\n    return associateWithTo(result,
valueSelector)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each
element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function
applied to that key.\n * \n * If any
two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample
samples.collections.Collections.Transformations.associateWithTo\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V, M>
MutableMap<in UInt, in V>> UIntArray.associateWithTo(destination: M, valueSelector: (UInt) -> V): M {\n    for
(element in this) {\n        destination.put(element, valueSelector(element))\n    }\n    return destination\n}\n\n/**\n *
Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n *
where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If
any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample
samples.collections.Collections.Transformations.associateWithTo\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun <V, M : MutableMap<in ULong, in V>> ULongArray.associateWithTo(destination: M, valueSelector: (ULong)
-> V): M {\n    for (element in this) {\n        destination.put(element, valueSelector(element))\n    }\n    return
destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element
of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied
to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n *
@sample samples.collections.Collections.Transformations.associateWithTo\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V, M :
MutableMap<in UByte, in V>> UByteArray.associateWithTo(destination: M, valueSelector: (UByte) -> V): M {\n    for
(element in this) {\n        destination.put(element, valueSelector(element))\n    }\n    return
destination\n}\n\n/**\n * Populates

```



and returns the [destination] mutable map with key-value pairs for each element of the given array, \n \* where key is the element itself and value is provided by the [valueSelector] function applied to that key. \n \* \n \* If any two elements are equal, the last one overwrites the former value in the map. \n \* \n \* @sample samples.collections.Collections.Transformations.associateWithTo

```
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in UShort, in V>> UShortArray.associateWithTo(destination: M, valueSelector: (UShort) -> V): M {\n    for (element in this) {\n        destination.put(element, valueSelector(element))\n    }\n    return destination\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array. \n * \n * @sample samples.collections.Collections.Transformations.flatMap
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.flatMap(transform: (UInt) -> Iterable<R>): List<R> {\n    return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array. \n * \n * @sample samples.collections.Collections.Transformations.flatMap
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.flatMap(transform: (ULong) -> Iterable<R>): List<R> {\n    return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array. \n * \n * @sample samples.collections.Collections.Transformations.flatMap
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.flatMap(transform: (UByte) -> Iterable<R>): List<R> {\n    return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array. \n * \n * @sample samples.collections.Collections.Transformations.flatMap
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.flatMap(transform: (UShort) -> Iterable<R>): List<R> {\n    return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element \n * and its index in the original array. \n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.flatMapIndexed(transform: (index: Int, UInt) -> Iterable<R>): List<R> {\n    return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element \n * and its index in the original array. \n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.flatMapIndexed(transform: (index: Int, ULong) -> Iterable<R>): List<R> {\n    return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element \n * and its index in the original array. \n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.flatMapIndexed(transform: (index: Int, UByte) -> Iterable<R>): List<R> {\n    return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element \n * and its index in the original array. \n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed
```

```

*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UShortArray.flatMapIndexed(transform: (index: Int, UShort) -> Iterable<R>): List<R> {\n    return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Appends all elements yielded from results of
[transform] function being invoked on each element\n * and its
index in the original array, to the given [destination].\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C :
MutableCollection<in R>> UIntArray.flatMapIndexedTo(destination: C, transform: (index: Int, UInt) ->
Iterable<R>): C {\n    var index = 0\n    for (element in this) {\n        val list = transform(index++, element)\n
destination.addAll(list)\n    }\n    return destination\n}\n\n/**\n * Appends all elements yielded from results of
[transform] function being invoked on each element\n * and its index in the original array, to the given
[destination].\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C :
MutableCollection<in R>> ULongArray.flatMapIndexedTo(destination:
C, transform: (index: Int, ULong) -> Iterable<R>): C {\n    var index = 0\n    for (element in this) {\n        val list =
transform(index++, element)\n        destination.addAll(list)\n    }\n    return destination\n}\n\n/**\n * Appends all
elements yielded from results of [transform] function being invoked on each element\n * and its index in the original
array, to the given [destination].\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C :
MutableCollection<in R>> UByteArray.flatMapIndexedTo(destination: C, transform: (index: Int, UByte) ->
Iterable<R>): C {\n    var index = 0\n    for (element in this) {\n        val list = transform(index++, element)\n
destination.addAll(list)\n    }\n    return destination\n}\n\n/**\n * Appends all elements yielded from results of
[transform] function being invoked on each
element\n * and its index in the original array, to the given [destination].\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C :
MutableCollection<in R>> UShortArray.flatMapIndexedTo(destination: C, transform: (index: Int, UShort) ->
Iterable<R>): C {\n    var index = 0\n    for (element in this) {\n        val list = transform(index++, element)\n
destination.addAll(list)\n    }\n    return destination\n}\n\n/**\n * Appends all elements yielded from results of
[transform] function being invoked on each element of original array, to the given [destination].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C :
MutableCollection<in R>> UIntArray.flatMapTo(destination: C, transform: (UInt) -> Iterable<R>): C {\n    for
(element in this) {\n        val list = transform(element)\n        destination.addAll(list)\n    }\n    return
destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C :
MutableCollection<in R>> ULongArray.flatMapTo(destination: C, transform: (ULong) -> Iterable<R>): C {\n    for
(element in this) {\n        val list = transform(element)\n        destination.addAll(list)\n    }\n    return
destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each
element of original array, to the given [destination].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C :
MutableCollection<in R>> UByteArray.flatMapTo(destination: C, transform: (UByte) -> Iterable<R>): C {\n    for
(element in this) {\n        val list =
transform(element)\n        destination.addAll(list)\n    }\n    return destination\n}\n\n/**\n * Appends all elements
yielded from results of [transform] function being invoked on each element of original array, to the given

```

```

[destination].\n * \n @SinceKotlin("1.3")\n @ExperimentalUnsignedTypes\n @kotlin.internal.InlineOnly\n public
inline fun <R, C : MutableCollection<in R>> UShortArray.flatMapTo(destination: C, transform: (UShort) ->
Iterable<R>): C {\n   for (element in this) {\n     val list = transform(element)\n     destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given
[keySelector] function\n * applied to each element and returns a map where each group key is associated with a list
of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from
the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*\n @SinceKotlin("1.3")\n @ExperimentalUnsignedTypes\n @kotlin.internal.InlineOnly\n public inline fun <K>
UIntArray.groupBy(keySelector: (UInt) -> K): Map<K, List<UInt>> {\n   return groupByTo(LinkedHashMap<K,
MutableList<UInt>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the
given [keySelector] function\n * applied to each element and returns a map where each group key is associated with
a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced
from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*\n @SinceKotlin("1.3")\n @ExperimentalUnsignedTypes\n @kotlin.internal.InlineOnly\n public inline fun <K>
ULongArray.groupBy(keySelector: (ULong) -> K): Map<K, List<ULong>> {\n   return
groupByTo(LinkedHashMap<K, MutableList<ULong>>(), keySelector)\n}\n\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector]
function\n * applied to each element and returns a map where each group key is associated with a list of
corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the
original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*\n @SinceKotlin("1.3")\n @ExperimentalUnsignedTypes\n @kotlin.internal.InlineOnly\n public inline fun <K>
UByteArray.groupBy(keySelector: (UByte) -> K): Map<K, List<UByte>> {\n   return
groupByTo(LinkedHashMap<K, MutableList<UByte>>(), keySelector)\n}\n\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map
where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the
entry iteration order of the keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupBy\n
*\n @SinceKotlin("1.3")\n @ExperimentalUnsignedTypes\n @kotlin.internal.InlineOnly\n public
inline fun <K> UShortArray.groupBy(keySelector: (UShort) -> K): Map<K, List<UShort>> {\n   return
groupByTo(LinkedHashMap<K, MutableList<UShort>>(), keySelector)\n}\n\n/**\n * Groups values returned by
the [valueTransform] function applied to each element of the original array\n * by the key returned by the given
[keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of
corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the
original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n
*\n @SinceKotlin("1.3")\n @ExperimentalUnsignedTypes\n @kotlin.internal.InlineOnly\n public inline fun <K, V>
UIntArray.groupBy(keySelector: (UInt) -> K, valueTransform: (UInt) -> V): Map<K, List<V>> {\n   return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values
returned by the [valueTransform] function applied to each element of the original array\n * by the
key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key
is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the
keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n
*\n @SinceKotlin("1.3")\n @ExperimentalUnsignedTypes\n @kotlin.internal.InlineOnly\n public inline fun <K, V>
ULongArray.groupBy(keySelector: (ULong) -> K, valueTransform: (ULong) -> V): Map<K, List<V>> {\n   return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values
returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by
the given [keySelector] function applied to the element\n * and returns

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a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves
the entry iteration order of the keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n
*/\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V>
UByteArray.groupBy(keySelector: (UByte) -> K, valueTransform: (UByte) -> V): Map<K, List<V>> {\n    return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values
returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by
the given [keySelector] function applied to the element\n * and returns a map where each group key is associated
with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys
produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n
*/\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V>
UShortArray.groupBy(keySelector: (UShort) -> K, valueTransform: (UShort) -> V): Map<K, List<V>> {\n    return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups elements
of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to
the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The
[destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*/\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, M :
MutableMap<in K, MutableList<UInt>>> UIntArray.groupByTo(destination: M, keySelector: (UInt) -> K): M {\n
    for (element in this) {\n        val key = keySelector(element)\n        val
list = destination.getOrPut(key) { ArrayList<UInt>() }\n        list.add(element)\n    }\n    return
destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector]
function\n * applied to each element and puts to the [destination] map each group key associated with a list of
corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample
samples.collections.Collections.Transformations.groupBy\n
*/\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, M :
MutableMap<in K, MutableList<ULong>>> ULongArray.groupByTo(destination: M, keySelector: (ULong) -> K):
M {\n    for (element in this) {\n        val key = keySelector(element)\n        val list = destination.getOrPut(key) {
ArrayList<ULong>() }\n        list.add(element)\n    }\n    return destination\n}\n\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector] function\n * applied to each
element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n *
@return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*/\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, M :
MutableMap<in K, MutableList<UByte>>> UByteArray.groupByTo(destination: M, keySelector: (UByte) -> K):
M {\n    for (element in this) {\n        val key = keySelector(element)\n        val list = destination.getOrPut(key) {
ArrayList<UByte>() }\n        list.add(element)\n    }\n    return destination\n}\n\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the
[destination] map each group key associated with a list of corresponding elements.\n * \n * @return The
[destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*/\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun <K, M : MutableMap<in K, MutableList<UShort>>> UShortArray.groupByTo(destination: M,
keySelector: (UShort) -> K): M {\n    for (element in this) {\n        val key = keySelector(element)\n        val list =
destination.getOrPut(key) { ArrayList<UShort>() }\n        list.add(element)\n    }\n    return destination\n}\n\n/**\n *
Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the
key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each
group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n
*/\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V,

```



element and its index in the original array.\n \* @param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
```

```
fun <R> UIntArray.mapIndexed(transform: (index: Int, UInt) -> R): List<R> {\n    return\n    mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the\n * given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function\n * that takes the index of an element and the element itself\n * and returns the result of the transform applied to the\n * element.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline\nfun <R> ULongArray.mapIndexed(transform: (index: Int, ULong) -> R): List<R> {\n    return\n    mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the\n * given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function\n * that takes the index of an element and the element itself\n * and returns the result of the transform applied to the\n * element.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic\ninline fun <R> UByteArray.mapIndexed(transform: (index: Int, UByte) -> R): List<R> {\n    return\n    mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the\n * given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function\n * that takes the index of an element and the element itself\n * and returns the result of the transform applied to the\n * element.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline\nfun <R> UShortArray.mapIndexed(transform: (index: Int, UShort) -> R): List<R> {\n    return\n    mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Applies the given [transform] function to each\n * element and its index in the original array\n * and appends the results to the given [destination].\n * @param\n * [transform] function that takes the index of an element and\n * the element itself\n * and returns the result of the transform applied to the element.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UIntArray.mapIndexedTo(destination: C, transform: (index: Int, UInt) -> R): C {\n    var\n    index = 0\n    for (item in this)\n        destination.add(transform(index++, item))\n    return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element\n * itself\n * and returns the result of the transform applied to the element.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> ULongArray.mapIndexedTo(destination: C, transform: (index: Int, ULong) -> R): C {\n    var\n    index = 0\n    for (item in this)\n        destination.add(transform(index++, item))\n    return destination\n}\n\n/**\n * Applies the given [transform]\n * function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of\n * the transform applied to the element.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UByteArray.mapIndexedTo(destination: C, transform: (index: Int, UByte) -> R): C {\n    var\n    index = 0\n    for (item in this)\n        destination.add(transform(index++, item))\n    return\n    destination\n}\n\n/**\n * Applies the given [transform] function\n * to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an\n * element and the element itself\n * and returns\n * the result of the transform applied to the element.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UShortArray.mapIndexedTo(destination: C, transform: (index: Int, UShort) -> R): C {\n    var\n    index = 0\n    for (item in this)\n        destination.add(transform(index++, item))\n    return\n    destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and\n * appends the results to the given [destination].\n
```

```

*^@SinceKotlin("1.3")^@ExperimentalUnsignedTypes^@kotlin.internal.InlineOnly^public inline fun <R, C :
MutableCollection<in R>> UIntArray.mapTo(destination: C, transform: (UInt) -> R): C {^n for (item in this)^n
destination.add(transform(item))^n return destination^n\n\n/**^n * Applies the given [transform] function to each
element of the original array^n * and appends the results to the given [destination].^n
*^@SinceKotlin("1.3")^@ExperimentalUnsignedTypes^@kotlin.internal.InlineOnly^public
inline fun <R, C : MutableCollection<in R>> ULongArray.mapTo(destination: C, transform: (ULong) -> R): C {^n
for (item in this)^n destination.add(transform(item))^n return destination^n\n\n/**^n * Applies the given
[transform] function to each element of the original array^n * and appends the results to the given [destination].^n
*^@SinceKotlin("1.3")^@ExperimentalUnsignedTypes^@kotlin.internal.InlineOnly^public inline fun <R, C :
MutableCollection<in R>> UByteArray.mapTo(destination: C, transform: (UByte) -> R): C {^n for (item in this)^n
destination.add(transform(item))^n return destination^n\n\n/**^n * Applies the given [transform] function to
each element of the original array^n * and appends the results to the given [destination].^n
*^@SinceKotlin("1.3")^@ExperimentalUnsignedTypes^@kotlin.internal.InlineOnly^public inline fun <R, C :
MutableCollection<in R>> UShortArray.mapTo(destination:
C, transform: (UShort) -> R): C {^n for (item in this)^n destination.add(transform(item))^n return
destination^n\n\n/**^n * Returns a lazy [Iterable] that wraps each element of the original array^n * into an
[IndexValue] containing the index of that element and the element itself.^n
*^@SinceKotlin("1.3")^@ExperimentalUnsignedTypes^public fun UIntArray.withIndex():
Iterable<IndexedValue<UInt>> {^n return IndexingIterable { iterator() }^n\n\n/**^n * Returns a lazy [Iterable]
that wraps each element of the original array^n * into an [IndexedValue] containing the index of that element and the
element itself.^n
*^@SinceKotlin("1.3")^@ExperimentalUnsignedTypes^public fun ULongArray.withIndex():
Iterable<IndexedValue<ULong>> {^n return IndexingIterable { iterator() }^n\n\n/**^n * Returns a lazy [Iterable]
that wraps each element of the original array^n * into an [IndexedValue] containing the index of that element and the
element itself.^n
*^@SinceKotlin("1.3")^@ExperimentalUnsignedTypes^public fun UByteArray.withIndex():
Iterable<IndexedValue<UByte>> {^n return IndexingIterable { iterator() }^n\n\n/**^n * Returns a lazy [Iterable]
that wraps each element of the original array^n * into an [IndexedValue] containing the index of that element and the
element itself.^n
*^@SinceKotlin("1.3")^@ExperimentalUnsignedTypes^public fun UShortArray.withIndex():
Iterable<IndexedValue<UShort>> {^n return IndexingIterable { iterator() }^n\n\n/**^n * Returns `true` if all
elements match the given [predicate].^n * ^n * @sample samples.collections.Collections.Aggregates.all^n
*^@SinceKotlin("1.3")^@ExperimentalUnsignedTypes^@kotlin.internal.InlineOnly^public inline fun
UIntArray.all(predicate: (UInt) -> Boolean): Boolean {^n for (element in this) if (!predicate(element)) return
false^n return true^n\n\n/**^n * Returns `true` if all elements match the given [predicate].^n * ^n * @sample
samples.collections.Collections.Aggregates.all^n
*^@SinceKotlin("1.3")^@ExperimentalUnsignedTypes^@kotlin.internal.InlineOnly^public inline fun
ULongArray.all(predicate: (ULong) -> Boolean): Boolean {^n for (element in this) if (!predicate(element)) return
false^n return true^n\n\n/**^n * Returns `true` if all elements match the given [predicate].^n * ^n * @sample
samples.collections.Collections.Aggregates.all^n
*^@SinceKotlin("1.3")^@ExperimentalUnsignedTypes^@kotlin.internal.InlineOnly^public inline fun
UByteArray.all(predicate: (UByte) -> Boolean): Boolean {^n for (element in this) if (!predicate(element)) return
false^n return true^n\n\n/**^n * Returns `true` if all elements match the given [predicate].^n * ^n * @sample
samples.collections.Collections.Aggregates.all^n
*^@SinceKotlin("1.3")^@ExperimentalUnsignedTypes^@kotlin.internal.InlineOnly^public inline fun
UShortArray.all(predicate: (UShort) -> Boolean): Boolean {^n for (element in this) if (!predicate(element))
return false^n return true^n\n\n/**^n * Returns `true` if array has at least one element.^n * ^n * @sample
samples.collections.Collections.Aggregates.any^n
*^@SinceKotlin("1.3")^@ExperimentalUnsignedTypes^@kotlin.internal.InlineOnly^public inline fun
UIntArray.any(): Boolean {^n return storage.any()\n\n/**^n * Returns `true` if array has at least one element.^n

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* \n * @sample samples.collections.Collections.Aggregates.any\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.any(): Boolean {\n    return storage.any()\n}\n\n/**\n * Returns `true` if array has at least one
element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.any(): Boolean {\n    return storage.any()\n}\n\n/**\n * Returns `true` if array has at least one
element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.any(): Boolean {\n    return storage.any()\n}\n\n/**\n * Returns `true` if at least one element matches
the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.any(predicate: (UInt) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return true\n
return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.anyWithPredicate\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.any(predicate: (ULong) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return
true\n    return false\n}\n\n/**\n * Returns
`true` if at least one element matches the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.anyWithPredicate\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.any(predicate: (UByte) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return
true\n    return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n *
@sample samples.collections.Collections.Aggregates.anyWithPredicate\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.any(predicate: (UShort) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return
true\n    return false\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.count(predicate: (UInt)
-> Boolean): Int {\n    var count = 0\n    for (element in this) if (predicate(element)) ++count\n    return
count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.count(predicate: (ULong) -> Boolean): Int {\n    var count = 0\n    for (element in this) if
(predicate(element)) ++count\n    return count\n}\n\n/**\n * Returns the number of elements matching the given
[predicate].\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UByteArray.count(predicate: (UByte) -> Boolean): Int {\n    var count = 0\n    for (element in this) if
(predicate(element)) ++count\n    return count\n}\n\n/**\n * Returns the number of elements matching the given
[predicate].\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UShortArray.count(predicate: (UShort)
-> Boolean): Int {\n    var count = 0\n    for (element in this) if (predicate(element)) ++count\n    return
count\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to
current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n
* @param [operation] function that takes current accumulator value and an element, and calculates the next
accumulator value.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UIntArray.fold(initial: R, operation: (acc: R, UInt) -> R): R {\n    var accumulator = initial\n    for (element in this)
accumulator = operation(accumulator, element)\n    return accumulator\n}\n\n/**\n * Accumulates value starting
with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n *
\n * Returns the specified [initial] value if the array is empty.\n

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\* \n \* @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n

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*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
ULongArray.fold(initial: R, operation: (acc: R, ULong) -> R): R {\n  var accumulator = initial\n  for (element in
this) accumulator = operation(accumulator, element)\n  return accumulator\n}\n\n/**\n * Accumulates value
starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each
element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that
takes current accumulator value and an element, and calculates the next accumulator value.\n
*/\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UByteArray.fold(initial: R, operation: (acc: R, UByte) -> R): R {\n  var accumulator = initial\n
for (element in this) accumulator = operation(accumulator, element)\n  return accumulator\n}\n\n/**\n *
Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator
value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param
[operation] function that takes current accumulator value and an element, and calculates the next accumulator
value.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
<R> UShortArray.fold(initial: R, operation: (acc: R, UShort) -> R): R {\n  var accumulator = initial\n
for (element in this) accumulator = operation(accumulator, element)\n  return accumulator\n}\n\n/**\n *
Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator
value and each element with its index in the original array.\n * \n * Returns the specified [initial]
value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current
accumulator value\n * and the element itself, and calculates the next accumulator value.\n
*/\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UIntArray.foldIndexed(initial: R, operation: (index: Int, acc: R, UInt) -> R): R {\n  var index = 0\n  var
accumulator = initial\n  for (element in this) accumulator = operation(index++, accumulator, element)\n  return
accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to
right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the
specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an
element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n
*/\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun <R> ULongArray.foldIndexed(initial: R, operation: (index: Int, acc: R, ULong) -> R): R {\n  var index
= 0\n  var accumulator = initial\n  for (element in this) accumulator = operation(index++, accumulator, element)\n
return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left
to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the
specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an
element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n
*/\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UByteArray.foldIndexed(initial: R, operation: (index: Int, acc: R, UByte) -> R): R {\n  var index = 0\n  var
accumulator = initial\n
for (element in this) accumulator = operation(index++, accumulator, element)\n  return accumulator\n}\n\n/**\n *
Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current
accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value
if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator
value\n * and the element itself, and calculates the next accumulator value.\n
*/\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UShortArray.foldIndexed(initial: R, operation: (index: Int, acc: R, UShort) -> R): R {\n  var index = 0\n  var
accumulator = initial\n  for (element in this) accumulator = operation(index++, accumulator, element)\n  return
accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to
left\n

```

\* to each element and current accumulator value.\n \* \n \* Returns the specified [initial] value if the array is empty.\n \* \n \* @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n

```

*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UIntArray.foldRight(initial: R, operation: (UInt, acc: R) -> R): R {\n    var index = lastIndex\n    var accumulator =
initial\n    while (index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n    }\n    return
accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to
left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is
empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the
next accumulator value.\n

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```

*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun <R> ULongArray.foldRight(initial: R, operation: (ULong, acc: R) -> R): R {\n    var index = lastIndex\n
var accumulator = initial\n    while (index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n    }\n
return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right
to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is
empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the
next accumulator value.\n

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```

*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UByteArray.foldRight(initial: R, operation: (UByte, acc: R) -> R): R {\n    var index = lastIndex\n    var
accumulator = initial\n    while (index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n
    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation]
from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if
the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and
calculates the next accumulator value.\n

```

```

*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UShortArray.foldRight(initial: R, operation: (UShort, acc: R) -> R): R {\n    var index = lastIndex\n    var
accumulator = initial\n    while (index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n    }\n
return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right
to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the
specified [initial] value if the
array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and
current accumulator value, and calculates the next accumulator value.\n

```

```

*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UIntArray.foldRightIndexed(initial: R, operation: (index: Int, UInt, acc: R) -> R): R {\n    var index = lastIndex\n
var accumulator = initial\n    while (index >= 0) {\n        accumulator = operation(index, get(index), accumulator)\n
        --index\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying
[operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n
* \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the
index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator
value.\n

```

```

*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun <R> ULongArray.foldRightIndexed(initial: R, operation: (index: Int, ULong, acc: R) -> R): R {\n    var index =
lastIndex\n    var accumulator = initial\n    while (index >= 0) {\n        accumulator = operation(index, get(index),
accumulator)\n        --index\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with [initial]
value and applying [operation] from right to left\n * to each element with its index in the original array and current
accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation]
function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the
next accumulator value.\n

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*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>

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UByteArray.foldRightIndexed(initial: R, operation:

```
(index: Int, UByte, acc: R) -> R): R { \n  var index = lastIndex\n  var accumulator = initial\n  while (index >= 0) {\n    accumulator = operation(index, get(index), accumulator)\n    --index\n  }\n  return
```

```
accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n
```

```
*\n * @SinceKotlin("1.3")\n * @ExperimentalUnsignedTypes\n * @kotlin.internal.InlineOnly\n * public inline fun <R>
```

```
UShortArray.foldRightIndexed(initial: R, operation: (index: Int, UShort, acc: R) -> R): R { \n  var index = lastIndex\n  var accumulator = initial\n  while (index >= 0) {\n    accumulator = operation(index, get(index), accumulator)\n    --index\n  }\n  return accumulator\n}\n\n/**\n * Performs the given [action] on each element.\n
```

```
*\n * @SinceKotlin("1.3")\n * @ExperimentalUnsignedTypes\n * @kotlin.internal.InlineOnly\n * public inline fun UIntArray.forEach(action: (UInt) -> Unit): Unit { \n  for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n
```

```
*\n * @SinceKotlin("1.3")\n * @ExperimentalUnsignedTypes\n * @kotlin.internal.InlineOnly\n * public inline fun
```

```
ULongArray.forEach(action: (ULong) -> Unit): Unit { \n  for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n
```

```
*\n * @SinceKotlin("1.3")\n * @ExperimentalUnsignedTypes\n * @kotlin.internal.InlineOnly\n * public inline fun
```

```
UByteArray.forEach(action: (UByte) -> Unit): Unit { \n  for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n
```

```
*\n * @SinceKotlin("1.3")\n * @ExperimentalUnsignedTypes\n * @kotlin.internal.InlineOnly\n * public inline fun UShortArray.forEach(action: (UShort) -> Unit): Unit { \n  for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n
```

```
*\n * @SinceKotlin("1.3")\n * @ExperimentalUnsignedTypes\n * @kotlin.internal.InlineOnly\n * public inline fun UIntArray.forEachIndexed(action: (index: Int, UInt) -> Unit): Unit { \n  var index = 0\n  for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n
```

```
*\n * @SinceKotlin("1.3")\n * @ExperimentalUnsignedTypes\n * @kotlin.internal.InlineOnly\n * public inline fun
```

```
ULongArray.forEachIndexed(action: (index: Int, ULong) -> Unit): Unit { \n  var index = 0\n  for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n
```

```
*\n * @SinceKotlin("1.3")\n * @ExperimentalUnsignedTypes\n * @kotlin.internal.InlineOnly\n * public inline fun
```

```
UByteArray.forEachIndexed(action: (index: Int, UByte) -> Unit): Unit { \n  var index = 0\n  for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n
```

```
*\n * @SinceKotlin("1.3")\n * @ExperimentalUnsignedTypes\n * @kotlin.internal.InlineOnly\n * public inline fun
```

```
UShortArray.forEachIndexed(action: (index: Int, UShort) -> Unit): Unit { \n  var index = 0\n  for (item in this) action(index++, item)\n}\n\n@Deprecated("Use maxOrNull instead.")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5", hiddenSince = "1.6")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.max(): UInt? { \n  return maxOrNull()\n}\n\n@Deprecated("Use maxOrNull instead.")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5", hiddenSince = "1.6")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.max(): ULong? { \n  return maxOrNull()\n}\n\n@Deprecated("Use maxOrNull instead.")
```

```

ReplaceWith("this.maxOrNull()")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5",
hiddenSince = "1.6")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.max():
UByte? {\n    return maxOrNull()\n}\n\n@Deprecated("Use maxOrNull instead."),
ReplaceWith("this.maxOrNull()")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince
= "1.5", hiddenSince = "1.6")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UShortArray.max(): UShort? {\n    return maxOrNull()\n}\n\n@Deprecated("Use maxByOrNull instead.",
ReplaceWith("this.maxByOrNull(selector)")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince =
"1.5", hiddenSince =
"1.6")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
<R : Comparable<R>> UIntArray.maxBy(selector: (UInt) -> R): UInt? {\n    return
maxByOrNull(selector)\n}\n\n@Deprecated("Use maxByOrNull instead."),
ReplaceWith("this.maxByOrNull(selector)")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince =
"1.5", hiddenSince =
"1.6")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
<R : Comparable<R>> ULongArray.maxBy(selector: (ULong) -> R): ULong? {\n    return
maxByOrNull(selector)\n}\n\n@Deprecated("Use maxByOrNull instead."),
ReplaceWith("this.maxByOrNull(selector)")\n@DeprecatedSinceKotlin(warningSince
= "1.4", errorSince = "1.5", hiddenSince =
"1.6")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
<R : Comparable<R>> UByteArray.maxBy(selector: (UByte) -> R): UByte? {\n    return
maxByOrNull(selector)\n}\n\n@Deprecated("Use maxByOrNull instead."),
ReplaceWith("this.maxByOrNull(selector)")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince =
"1.5", hiddenSince =
"1.6")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
<R : Comparable<R>> UShortArray.maxBy(selector: (UShort) -> R): UShort? {\n    return
maxByOrNull(selector)\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or
`null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n
*/\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun <R : Comparable<R>> UIntArray.maxByOrNull(selector: (UInt) -> R): UInt? {\n    if (isEmpty()) return
null\n    var maxElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return maxElem\n    var
maxValue = selector(maxElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if
(maxValue < v) {\n            maxElem = e\n            maxValue = v\n        }\n    }\n    return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n
*/\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> ULongArray.maxByOrNull(selector: (ULong) -> R): ULong? {\n    if (isEmpty()) return null\n
var maxElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return maxElem\n    var maxValue =
selector(maxElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (maxValue < v) {\n            maxElem
= e\n            maxValue = v\n        }\n    }\n    return maxElem\n}\n\n/**\n * Returns the first
element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.maxByOrNull\n
*/\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UByteArray.maxByOrNull(selector: (UByte) -> R): UByte? {\n    if (isEmpty()) return null\n
var maxElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return maxElem\n    var maxValue =
selector(maxElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (maxValue < v) {\n            maxElem
= e\n            maxValue = v\n        }\n    }\n    return maxElem\n}\n\n/**\n * Returns the first

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element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.maxByOrNull\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UShortArray.maxByOrNull(selector: (UShort) -> R): UShort? {\n if (isEmpty()) return null\n
var maxElem = this[0]\n val lastIndex = this.lastIndex\n if (lastIndex == 0) return maxElem\n var maxValue =
selector(maxElem)\n for (i in 1..lastIndex) {\n val e = this[i]\n val v = selector(e)\n if (maxValue < v)
{\n maxElem = e\n maxValue = v\n }\n }\n return maxElem\n}\n\n/**\n * Returns the largest
value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of
values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws
NoSuchElementException if
the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.maxOf(selector: (UInt) -> Double): Double {\n if (isEmpty()) throw NoSuchElementException()\n
var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n maxValue =
maxOf(maxValue, v)\n }\n return maxValue\n}\n\n/**\n * Returns the largest value among all values produced
by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector]
function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.maxOf(selector: (ULong) -> Double): Double {\n if (isEmpty()) throw
NoSuchElementException()\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v =
selector(this[i])\n maxValue = maxOf(maxValue, v)\n }\n return maxValue\n}\n\n/**\n * Returns the
largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If
any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.maxOf(selector: (UByte) -> Double): Double {\n if (isEmpty()) throw NoSuchElementException()\n
var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n maxValue
= maxOf(maxValue, v)\n }\n return maxValue\n}\n\n/**\n * Returns the largest value among all values
produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by
[selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is
empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.maxOf(selector: (UShort) -> Double): Double {\n if (isEmpty()) throw
NoSuchElementException()\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v =
selector(this[i])\n maxValue = maxOf(maxValue, v)\n }\n return maxValue\n}\n\n/**\n * Returns the
largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If
any of values produced by [selector]
function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.maxOf(selector: (UInt) -> Float): Float {\n if (isEmpty()) throw NoSuchElementException()\n var
maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n maxValue =
maxOf(maxValue, v)\n }\n return maxValue\n}\n\n/**\n * Returns the largest value among all values produced
by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector]

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function is `NaN`, the returned result is `NaN`. \n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.maxOf(selector: (ULong) -> Float): Float {\n    if (isEmpty()) throw
NoSuchElementException()\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =
selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the
largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If
any of values produced by [selector] function is `NaN`, the returned result is `NaN`. \n * \n * @throws
NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.maxOf(selector: (UByte) -> Float): Float {\n    if (isEmpty()) throw NoSuchElementException()\n    var
maxValue = selector(this[0])\n
    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return
maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`. \n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.maxOf(selector: (UShort) -> Float): Float {\n    if (isEmpty()) throw NoSuchElementException()\n
var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue =
maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced
by [selector]
function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is
empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UIntArray.maxOf(selector: (UInt) -> R): R {\n    if (isEmpty()) throw
NoSuchElementException()\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =
selector(this[i])\n        if (maxValue < v) {\n            maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the
array.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun <R : Comparable<R>> ULongArray.maxOf(selector: (ULong) -> R): R {\n    if (isEmpty()) throw
NoSuchElementException()\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =
selector(this[i])\n        if (maxValue < v) {\n            maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the
array.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UByteArray.maxOf(selector: (UByte) -> R): R {\n    if (isEmpty()) throw
NoSuchElementException()\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =
selector(this[i])\n        if (maxValue < v) {\n
            maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values
produced by [selector] function\n * applied to each element in the array.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

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ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UShortArray.maxOf(selector: (UShort -> R): R {\n  if (isEmpty()) throw
NoSuchElementException()\n  var maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v =
selector(this[i])\n    if (maxValue < v) {\n      maxValue = v\n    }\n  }\n  return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function
is `NaN`, the returned result is `NaN`.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.maxOfOrNull(selector: (UInt -> Double): Double? {\n  if (isEmpty()) return null\n  var maxValue =
selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    maxValue = maxOf(maxValue, v)\n
  }\n  return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n *
applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector]
function is `NaN`, the returned result is `NaN`.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.maxOfOrNull(selector:
(ULong -> Double): Double? {\n  if (isEmpty()) return null\n  var maxValue = selector(this[0])\n  for (i in
1..lastIndex) {\n    val v = selector(this[i])\n    maxValue = maxOf(maxValue, v)\n  }\n  return
maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to
each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function
is `NaN`, the returned result is `NaN`.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.maxOfOrNull(selector: (UByte -> Double): Double? {\n  if (isEmpty()) return null\n  var maxValue
= selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    maxValue = maxOf(maxValue,
v)\n  }\n  return maxValue\n}\n\n/**\n * Returns
the largest value among all values produced by [selector] function\n * applied to each element in the array or `null`
if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.maxOfOrNull(selector: (UShort -> Double): Double? {\n  if (isEmpty()) return null\n  var
maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    maxValue =
maxOf(maxValue, v)\n  }\n  return maxValue\n}\n\n/**\n * Returns the largest value among all values produced
by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of
values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UIntArray.maxOfOrNull(selector: (UInt -> Float): Float? {\n  if (isEmpty()) return null\n  var
maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    maxValue =
maxOf(maxValue, v)\n  }\n  return maxValue\n}\n\n/**\n * Returns the largest value among all values produced
by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of
values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.maxOfOrNull(selector: (ULong -> Float): Float? {\n  if (isEmpty()) return

```

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null\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n     val v = selector(this[i])\n     maxValue = maxOf(maxValue, v)\n } return maxValue\n\n\n**\n * Returns the largest value among all values
produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If
any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ByteArray.maxOfOrNull(selector: (UByte) -> Float): Float? {\n     if (isEmpty()) return null\n     var maxValue =
selector(this[0])\n     for (i in 1..lastIndex) {\n         val v = selector(this[i])\n         maxValue = maxOf(maxValue, v)\n
    }\n     return maxValue\n}\n\n**\n * Returns the largest value among all values produced by [selector] function\n
* applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by
[selector] function is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.maxOfOrNull(selector: (UShort) -> Float): Float? {\n     if (isEmpty()) return null\n     var maxValue =
selector(this[0])\n     for (i in 1..lastIndex) {\n         val v = selector(this[i])\n         maxValue = maxOf(maxValue, v)\n
    }\n     return maxValue\n}\n\n**\n * Returns the largest value among all values produced by [selector] function\n
* applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun <R : Comparable<R>> UIntArray.maxOfOrNull(selector: (UInt) -> R): R? {\n     if (isEmpty()) return
null\n     var maxValue = selector(this[0])\n     for (i in 1..lastIndex) {\n         val v = selector(this[i])\n         if
(maxValue < v) {\n             maxValue = v\n         }\n     }\n     return maxValue\n}\n\n**\n * Returns the largest value
among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no
elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> ULongArray.maxOfOrNull(selector: (ULong) -> R): R? {\n     if (isEmpty()) return null\n     var
maxValue = selector(this[0])\n     for (i in 1..lastIndex) {\n         val v = selector(this[i])\n         if (maxValue < v) {\n
             maxValue = v\n         }\n     }\n     return maxValue\n}\n\n**\n * Returns the largest value among all values
produced by [selector] function\n * applied to each element in the
array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UByteArray.maxOfOrNull(selector: (UByte) -> R): R? {\n     if (isEmpty()) return null\n     var
maxValue = selector(this[0])\n     for (i in 1..lastIndex) {\n         val v = selector(this[i])\n         if (maxValue < v) {\n
             maxValue = v\n         }\n     }\n     return maxValue\n}\n\n**\n * Returns the largest value among all values
produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
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ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun <R : Comparable<R>> UShortArray.maxOfOrNull(selector: (UShort) -> R): R? {\n     if (isEmpty())
return null\n     var maxValue = selector(this[0])\n     for (i in 1..lastIndex) {\n         val v = selector(this[i])\n         if
(maxValue < v) {\n             maxValue = v\n         }\n     }\n     return maxValue\n}\n\n**\n * Returns the largest value
according to the provided [comparator]\n * among all values produced by [selector] function applied to each
element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UIntArray.maxOfWith(comparator: Comparator<in R>, selector: (UInt) -> R): R {\n     if (isEmpty()) throw
NoSuchElementException()\n     var maxValue = selector(this[0])\n     for (i in 1..lastIndex) {\n         val v

```



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= selector(this[i])\n    if (comparator.compare(maxValue, v) < 0) {\n        maxValue = v\n    }\n }\n
return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws\n NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>\n ULongArray.maxOfWith(comparator: Comparator<in R>, selector: (ULong) -> R): R {\n    if (isEmpty()) throw\n NoSuchElementException()\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =\n selector(this[i])\n        if (comparator.compare(maxValue, v) < 0) {\n            maxValue = v\n        }\n    }\n    return\n maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws\n NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>\n UByteArray.maxOfWith(comparator: Comparator<in R>, selector: (UByte) -> R): R {\n    if (isEmpty()) throw\n NoSuchElementException()\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =\n selector(this[i])\n        if (comparator.compare(maxValue, v) < 0) {\n            maxValue = v\n        }\n    }\n    return\n maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws\n NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic\n inline fun <R> UShortArray.maxOfWith(comparator: Comparator<in R>, selector: (UShort) -> R): R {\n    if\n (isEmpty()) throw NoSuchElementException()\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if (comparator.compare(maxValue, v) < 0) {\n            maxValue = v\n        }\n    }\n    return\n maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>\n UIntArray.maxOfWithOrNull(comparator: Comparator<in R>, selector:\n (UInt) -> R): R? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if (comparator.compare(maxValue, v) < 0) {\n            maxValue = v\n        }\n    }\n    return\n maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>\n ULongArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (ULong) -> R): R? {\n    if (isEmpty())\n return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if\n (comparator.compare(maxValue, v) < 0) {\n            maxValue = v\n        }\n    }\n    return\n maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>\n UByteArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (UByte) -> R): R? {\n    if (isEmpty())\n return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if\n (comparator.compare(maxValue, v) < 0) {\n            maxValue = v\n        }\n    }\n    return\n maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector]\n function applied to each element in the array or `null` if there are no elements.\n

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*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun <R> UShortArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (UShort) -> R): R? {\n
if (isEmpty()) return null\n var max = selector(this[0])\n for (i in 1..lastIndex) {\n val v =
selector(this[i])\n if (comparator.compare(max, v) < 0) {\n max = v\n }\n }\n return
max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.maxOrNull(): UInt? {\n if
(isEmpty()) return null\n var max = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (max < e) max
= e\n }\n return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic
fun ULongArray.maxOrNull(): ULong? {\n if (isEmpty()) return null\n var max = this[0]\n for (i in
1..lastIndex) {\n val e = this[i]\n if (max < e) max = e\n }\n return max\n}\n\n/**\n * Returns the largest
element or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun
UByteArray.maxOrNull(): UByte? {\n if (isEmpty()) return null\n var max = this[0]\n for (i in 1..lastIndex) {\n
val e = this[i]\n if (max < e) max = e\n }\n return max\n}\n\n/**\n * Returns the largest element or `null`
if there are no elements.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun
UShortArray.maxOrNull(): UShort? {\n if (isEmpty()) return null\n var max = this[0]\n for (i in 1..lastIndex)
{\n val e = this[i]\n if (max < e) max = e\n }\n return max\n}\n\n@Deprecated("Use maxWithOrNull
instead.", ReplaceWith("this.maxWithOrNull(comparator)"))\n@DeprecatedSinceKotlin(warningSince
= "1.4", errorSince = "1.5", hiddenSince =
"1.6")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.maxWith(comparator:
Comparator<in UInt>): UInt? {\n return maxWithOrNull(comparator)\n}\n\n@Deprecated("Use maxWithOrNull
instead.", ReplaceWith("this.maxWithOrNull(comparator)"))\n@DeprecatedSinceKotlin(warningSince = "1.4",
errorSince = "1.5", hiddenSince = "1.6")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
ULongArray.maxWith(comparator: Comparator<in ULong>): ULong? {\n return
maxWithOrNull(comparator)\n}\n\n@Deprecated("Use maxWithOrNull instead.",
ReplaceWith("this.maxWithOrNull(comparator)"))\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince
= "1.5", hiddenSince = "1.6")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UByteArray.maxWith(comparator: Comparator<in UByte>): UByte? {\n return
maxWithOrNull(comparator)\n}\n\n@Deprecated("Use maxWithOrNull
instead.", ReplaceWith("this.maxWithOrNull(comparator)"))\n@DeprecatedSinceKotlin(warningSince = "1.4",
errorSince = "1.5", hiddenSince = "1.6")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UShortArray.maxWith(comparator: Comparator<in UShort>): UShort? {\n return
maxWithOrNull(comparator)\n}\n\n/**\n * Returns the first element having the largest value according to the
provided [comparator] or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.maxWithOrNull(comparator:
Comparator<in UInt>): UInt? {\n if (isEmpty()) return null\n var max = this[0]\n for (i in 1..lastIndex) {\n
val e = this[i]\n if (comparator.compare(max, e) < 0) max = e\n }\n return max\n}\n\n/**\n * Returns the
first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun
ULongArray.maxWithOrNull(comparator: Comparator<in ULong>): ULong? {\n if (isEmpty()) return null\n
var max = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (comparator.compare(max, e) < 0) max =
e\n }\n return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided
[comparator] or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.maxWithOrNull(comparator:
Comparator<in UByte>): UByte? {\n if (isEmpty()) return null\n var max = this[0]\n for (i in 1..lastIndex) {\n
val e = this[i]\n if (comparator.compare(max, e) < 0) max = e\n }\n return max\n}\n\n/**\n * Returns the
first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n

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*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.maxWithOrNull(comparator:
Comparator<in UShort>): UShort?
    {\n    if (isEmpty()) return null\n    var max = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if
(comparator.compare(max, e) < 0) max = e\n    }\n    return max\n}\n\n@Deprecated("Use minOrNull instead.\",
ReplaceWith("this.minOrNull()"))\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5",
hiddenSince = "1.6")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.min(): UInt?
{\n    return minOrNull()\n}\n\n@Deprecated("Use minOrNull instead.\",
ReplaceWith("this.minOrNull()"))\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5",
hiddenSince = "1.6")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.min():
ULong? {\n    return minOrNull()\n}\n\n@Deprecated("Use minOrNull instead.\",
ReplaceWith("this.minOrNull()"))\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5",
hiddenSince = "1.6")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
    UByteArray.min(): UByte? {\n    return minOrNull()\n}\n\n@Deprecated("Use minOrNull instead.\",
ReplaceWith("this.minOrNull()"))\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.5",
hiddenSince = "1.6")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.min():
UShort? {\n    return minOrNull()\n}\n\n@Deprecated("Use minByOrNull instead.\",
ReplaceWith("this.minByOrNull(selector)"))\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince =
"1.5", hiddenSince =
"1.6")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
<R : Comparable<R>> UIntArray.minBy(selector: (UInt) -> R): UInt? {\n    return
minByOrNull(selector)\n}\n\n@Deprecated("Use minByOrNull instead.\",
ReplaceWith("this.minByOrNull(selector)"))\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince =
"1.5", hiddenSince =
"1.6")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
    inline fun <R : Comparable<R>> ULongArray.minBy(selector: (ULong) -> R): ULong? {\n    return
minByOrNull(selector)\n}\n\n@Deprecated("Use minByOrNull instead.\",
ReplaceWith("this.minByOrNull(selector)"))\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince =
"1.5", hiddenSince =
"1.6")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
<R : Comparable<R>> UByteArray.minBy(selector: (UByte) -> R): UByte? {\n    return
minByOrNull(selector)\n}\n\n@Deprecated("Use minByOrNull instead.\",
ReplaceWith("this.minByOrNull(selector)"))\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince =
"1.5", hiddenSince =
"1.6")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
<R : Comparable<R>> UShortArray.minBy(selector: (UShort) -> R): UShort? {\n    return
minByOrNull(selector)\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or
`null`
if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UIntArray.minByOrNull(selector: (UInt) -> R): UInt? {\n    if (isEmpty()) return null\n    var
minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var minValue =
selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (minValue > v)
{\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the first
element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.minByOrNull\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> ULongArray.minByOrNull(selector:

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(ULong) -> R): ULong? {\n  if (isEmpty()) return null\n  var minElem = this[0]\n  val lastIndex =
this.lastIndex\n  if (lastIndex == 0) return minElem\n  var minValue = selector(minElem)\n  for (i in
1..lastIndex) {\n    val e = this[i]\n    val v = selector(e)\n    if (minValue > v) {\n      minElem = e\n
minValue = v\n    }\n  }\n  return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value
of the given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.minByOrNull\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UByteArray.minByOrNull(selector: (UByte) -> R): UByte? {\n  if (isEmpty()) return null\n
var minElem = this[0]\n  val lastIndex = this.lastIndex\n  if (lastIndex == 0) return minElem\n  var minValue =
selector(minElem)\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    val v = selector(e)\n    if (minValue > v) {\n
minElem = e\n    minValue = v\n    }\n  }\n  return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function
or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UShortArray.minByOrNull(selector: (UShort) -> R): UShort? {\n  if (isEmpty()) return null\n
var minElem = this[0]\n  val lastIndex = this.lastIndex\n  if (lastIndex == 0) return minElem\n  var minValue =
selector(minElem)\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    val v = selector(e)\n    if (minValue > v) {\n
minElem = e\n    minValue = v\n    }\n  }\n  return minElem\n}\n\n/**\n * Returns the smallest
value among all values produced by [selector]
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*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.minOf(selector: (UInt) -> Double): Double {\n  if (isEmpty()) throw NoSuchElementException()\n
var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    minValue =
minOf(minValue, v)\n  }\n  return minValue\n}\n\n/**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector]
function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.minOf(selector: (ULong) -> Double): Double {\n  if (isEmpty()) throw
NoSuchElementException()\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v =
selector(this[i])\n    minValue = minOf(minValue, v)\n  }\n  return minValue\n}\n\n/**\n * Returns the smallest
value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of
values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.minOf(selector: (UByte)
-> Double): Double {\n  if (isEmpty()) throw NoSuchElementException()\n  var minValue = selector(this[0])\n
for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    minValue = minOf(minValue, v)\n  }\n  return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.minOf(selector: (UShort) -> Double): Double {\n  if (isEmpty()) throw NoSuchElementException()\n
var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    minValue =

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minOf(minValue, v)\n

}\n return minValue\n}\n\n/\*\*\n \* Returns the smallest value among all values produced by [selector]  
function\n \* applied to each element in the array.\n \* \n \* If any of values produced by [selector] function is `NaN`,  
the returned result is `NaN`.\n \* \n \* @throws NoSuchElementException if the array is empty.\n \*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution  
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun  
UIntArray.minOf(selector: (UInt) -> Float): Float {\n if (isEmpty()) throw NoSuchElementException()\n var  
minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n minValue =  
minOf(minValue, v)\n }\n return minValue\n}\n\n/\*\*\n \* Returns the smallest value among all values produced  
by [selector] function\n \* applied to each element in the array.\n \* \n \* If any of values produced by [selector]  
function is `NaN`, the

returned result is `NaN`.\n \* \n \* @throws NoSuchElementException if the array is empty.\n \*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution  
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun  
ULongArray.minOf(selector: (ULong) -> Float): Float {\n if (isEmpty()) throw NoSuchElementException()\n  
var minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n minValue =  
minOf(minValue, v)\n }\n return minValue\n}\n\n/\*\*\n \* Returns the smallest value among all values produced  
by [selector] function\n \* applied to each element in the array.\n \* \n \* If any of values produced by [selector]  
function is `NaN`, the returned result is `NaN`.\n \* \n \* @throws NoSuchElementException if the array is empty.\n \*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

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NoSuchElementException()\n var minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v =  
selector(this[i])\n minValue = minOf(minValue, v)\n }\n return minValue\n}\n\n/\*\*\n \* Returns the smallest  
value among all values produced by [selector] function\n \* applied to each element in the array.\n \* \n \* If any of  
values produced by [selector] function is `NaN`, the returned result is `NaN`.\n \* \n \* @throws  
NoSuchElementException if the array is empty.\n \*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun  
UShortArray.minOf(selector: (UShort) -> Float): Float {\n if (isEmpty()) throw NoSuchElementException()\n  
var minValue = selector(this[0])\n for (i  
in 1..lastIndex) {\n val v = selector(this[i])\n minValue = minOf(minValue, v)\n }\n return  
minValue\n}\n\n/\*\*\n \* Returns the smallest value among all values produced by [selector] function\n \* applied to  
each element in the array.\n \* \n \* @throws NoSuchElementException if the array is empty.\n \*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :  
Comparable<R>> UIntArray.minOf(selector: (UInt) -> R): R {\n if (isEmpty()) throw  
NoSuchElementException()\n var minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v =  
selector(this[i])\n if (minValue > v) {\n minValue = v\n }\n }\n return minValue\n}\n\n/\*\*\n \* Returns the smallest value among all values produced by [selector] function\n \* applied to each element in the  
array.\n \* \n \* @throws NoSuchElementException  
if the array is empty.\n \*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :  
Comparable<R>> ULongArray.minOf(selector: (ULong) -> R): R {\n if (isEmpty()) throw  
NoSuchElementException()\n var minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v =  
selector(this[i])\n if (minValue > v) {\n minValue = v\n }\n }\n return minValue\n}\n\n/\*\*\n \* Returns the smallest value among all values produced by [selector] function\n \* applied to each element in the

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array.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UByteArray.minOf(selector: (UByte)
-> R): R {\n if (isEmpty()) throw NoSuchElementException()\n var minValue = selector(this[0])\n for (i in
1..lastIndex) {\n val v = selector(this[i])\n if (minValue > v) {\n minValue = v\n }\n }\n
return minValue\n}\n\n**\n * Returns the smallest value among all values produced by [selector] function\n *
applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UShortArray.minOf(selector: (UShort) -> R): R {\n if (isEmpty()) throw
NoSuchElementException()\n var minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v =
selector(this[i])\n if (minValue > v) {\n minValue = v\n }\n }\n return minValue\n}\n\n**\n *
Returns
the smallest value among all values produced by [selector] function\n * applied to each element in the array or
`null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result
is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.minOfOrNull(selector: (UInt) -> Double): Double? {\n if (isEmpty()) return null\n var minValue =
selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n minValue = minOf(minValue, v)\n
}\n return minValue\n}\n\n**\n * Returns the smallest value among all values produced by [selector] function\n *
applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector]
function is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.minOfOrNull(selector: (ULong) -> Double): Double? {\n if (isEmpty()) return null\n
var minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n minValue =
minOf(minValue, v)\n }\n return minValue\n}\n\n**\n * Returns the smallest value among all values produced
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UByteArray.minOfOrNull(selector: (UByte) -> Double): Double? {\n if (isEmpty())
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minValue = minOf(minValue, v)\n }\n return minValue\n}\n\n**\n * Returns the smallest value among all
values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n *
\n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.minOfOrNull(selector: (UShort) -> Double): Double? {\n if (isEmpty()) return null\n var minValue
= selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n minValue = minOf(minValue, v)\n
}\n return minValue\n}\n\n**\n * Returns the smallest value among all values produced by [selector]
function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values
produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.minOfOrNull(selector: (UInt) -> Float): Float? {\n if (isEmpty()) return null\n var minValue =

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selector(this[0])\n for (i in 1..lastIndex) {\n     val v = selector(this[i])\n     minValue = minOf(minValue, v)\n }
}\n return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.minOfOrNull(selector: (ULong) -> Float): Float? {\n    if (isEmpty()) return null\n    var
minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        minValue =
minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of
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*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.minOfOrNull(selector: (UByte) -> Float): Float? {\n    if (isEmpty()) return null\n    var minValue =
selector(this[0])\n    for
(i in 1..lastIndex) {\n        val v = selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function
is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.minOfOrNull(selector: (UShort) -> Float): Float? {\n    if (isEmpty()) return null\n    var minValue =
selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UIntArray.minOfOrNull(selector: (UInt) -> R): R? {\n    if (isEmpty()) return null\n    var
minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if (minValue > v) {\n
            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values
produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> ULongArray.minOfOrNull(selector: (ULong) -> R): R? {\n    if (isEmpty())
return null\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if
(minValue > v) {\n            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value
among all values produced by [selector] function\n * applied to each element
in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UByteArray.minOfOrNull(selector: (UByte) -> R): R? {\n    if (isEmpty()) return null\n    var
minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if (minValue > v) {\n
            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values
produced by [selector] function\n * applied to each element
in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :

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minValue}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values
produced by [selector] function applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UByteArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (UByte) -> R): R? {\n if (isEmpty())
return null\n var minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if
(comparator.compare(minValue, v) > 0) {\n minValue = v\n }\n }\n return minValue}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UShortArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (UShort) -> R): R? {\n if (isEmpty())
return null\n var minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if
(comparator.compare(minValue, v) > 0) {\n minValue = v\n }\n }\n return minValue}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.minOrNull(): UInt? {\n if
(isEmpty()) return null\n var min = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (min > e) min = e\n }\n return min}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.minOrNull(): ULong? {\n if
(isEmpty()) return null\n var min = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (min > e) min =
e\n }\n return min}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.minOrNull(): UByte? {\n if
(isEmpty()) return null\n var min = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (min > e) min =
e\n }\n return min}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.minOrNull(): UShort? {\n if
(isEmpty()) return
null\n var min = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (min > e) min = e\n }\n return
min}\n\n@Deprecated("Use minWithOrNull instead.")
ReplaceWith("this.minWithOrNull(comparator)")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince
= "1.5", hiddenSince = "1.6")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UIntArray.minWith(comparator: Comparator<in UInt>): UInt? {\n return
minWithOrNull(comparator)\n}\n\n@Deprecated("Use minWithOrNull instead.")
ReplaceWith("this.minWithOrNull(comparator)")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince
= "1.5", hiddenSince = "1.6")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
ULongArray.minWith(comparator: Comparator<in ULong>): ULong? {\n return
minWithOrNull(comparator)\n}\n\n@Deprecated("Use minWithOrNull instead.")
ReplaceWith("this.minWithOrNull(comparator)")\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince
= "1.5", hiddenSince = "1.6")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UByteArray.minWith(comparator: Comparator<in UByte>): UByte? {\n return
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= "1.5", hiddenSince = "1.6")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UShortArray.minWith(comparator: Comparator<in UShort>): UShort? {\n return
minWithOrNull(comparator)\n}\n\n/**\n * Returns the first element having the smallest value according to the
provided [comparator] or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.minWithOrNull(comparator:
Comparator<in UInt>): UInt? {\n if (isEmpty()) return null\n var min = this[0]\n for (i in 1..lastIndex) {\n

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val e = this[i]\n    if (comparator.compare(min, e) > 0) min = e\n
    }\n    return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided
[comparator] or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.minWithOrNull(comparator:
Comparator<in ULong>): ULong? {\n    if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n
    val e = this[i]\n        if (comparator.compare(min, e) > 0) min = e\n    }\n    return min\n}\n\n/**\n * Returns the
first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.minWithOrNull(comparator:
Comparator<in UByte>): UByte? {\n    if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n
    val e = this[i]\n        if (comparator.compare(min, e) > 0) min = e\n    }\n    return min\n}\n\n/**\n * Returns the
first element having
the smallest value according to the provided [comparator] or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.minWithOrNull(comparator:
Comparator<in UShort>): UShort? {\n    if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n
    val e = this[i]\n        if (comparator.compare(min, e) > 0) min = e\n    }\n    return min\n}\n\n/**\n * Returns
`true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.none(): Boolean {\n    return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n *
@sample samples.collections.Collections.Aggregates.none\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.none(): Boolean {\n    return isEmpty()\n}\n\n/**\n * Returns
`true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.none(): Boolean {\n    return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n *
@sample samples.collections.Collections.Aggregates.none\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.none(): Boolean {\n    return isEmpty()\n}\n\n/**\n * Returns `true` if no elements match the given
[predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.none(predicate: (UInt) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return
false\n    return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n
* \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.none(predicate: (ULong) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return
false\n    return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.none(predicate: (UByte) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return
false\n    return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.none(predicate:
(UShort) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return false\n    return
true\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.onEach(action: (UInt) -> Unit): UIntArray {\n    return apply { for (element in this) action(element)
}\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun

```

```

UByteArray.forEach(action: (UByte) -> Unit): UByteArray {
    return apply { for (element in this)
        action(element) }
}

* Performs the given [action] on each element and returns the array itself afterwards.

@SinceKotlin("1.4")@ExperimentalUnsignedTypes@kotlin.internal.InlineOnly@public
inline fun UByteArray.forEach(action: (UByte) -> Unit): UByteArray
{
    return apply { for (element in this) action(element) }
}

* Performs the given [action] on each element and returns the array itself afterwards.

@SinceKotlin("1.4")@ExperimentalUnsignedTypes@kotlin.internal.InlineOnly@public inline fun
UShortArray.forEach(action: (UShort) -> Unit): UShortArray {
    return apply { for (element in this)
        action(element) }
}

* Performs the given [action] on each element, providing sequential index with the element,
* and returns the array itself afterwards.
* @param [action] function that takes the index of an element and the element itself
* and performs the action on the element.

@SinceKotlin("1.4")@ExperimentalUnsignedTypes@kotlin.internal.InlineOnly@public inline fun
UIntArray.forEachIndexed(action: (index: Int, UInt) -> Unit): UIntArray {
    return apply {
        forEachIndexed(action) }
}

* Performs the given [action] on each element, providing sequential index with the element,
* and returns the array itself afterwards.
* @param [action] function that takes the index of an element and the element itself
* and performs the action on the element.

@SinceKotlin("1.4")@ExperimentalUnsignedTypes@kotlin.internal.InlineOnly@public inline fun
UByteArray.forEachIndexed(action: (index: Int, UByte) -> Unit): UByteArray {
    return apply {
        forEachIndexed(action) }
}

* Performs the given [action] on each element, providing sequential index with the
element,
* and returns the array itself afterwards.
* @param [action] function that takes the index of an element and the element itself
* and performs the action on the element.

@SinceKotlin("1.4")@ExperimentalUnsignedTypes@kotlin.internal.InlineOnly@public inline fun
UShortArray.forEachIndexed(action: (index: Int, UShort) -> Unit): UShortArray {
    return apply {
        forEachIndexed(action) }
}

* Accumulates value starting with the first element and applying [operation] from left to right
* to current accumulator value and each element.
* Throws an exception if this array is empty. If the array can be empty in an expected way,
* please use [reduceOrNull] instead. It returns `null` when its receiver is empty.
* @param [operation] function that takes current accumulator value and an element,
* and calculates the next accumulator value.
* @sample samples.collections.Collections.Aggregates.reduce

@SinceKotlin("1.3")@ExperimentalUnsignedTypes@kotlin.internal.InlineOnly@public
inline fun UIntArray.reduce(operation: (acc: UInt, UInt) -> UInt): UInt {
    if (isEmpty())
        throw UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = this[0]
    for (index in 1..lastIndex) {
        accumulator = operation(accumulator, this[index])
    }
    return accumulator
}

* Accumulates value starting with the first element and applying [operation] from left to right
* to current accumulator value and each element.
* Throws an exception if this array is empty. If the array can be empty in an expected way,
* please use [reduceOrNull] instead. It returns `null` when its receiver is empty.
* @param [operation] function that takes current accumulator value and an element,
* and calculates the next accumulator value.
* @sample samples.collections.Collections.Aggregates.reduce

@SinceKotlin("1.3")@ExperimentalUnsignedTypes@kotlin.internal.InlineOnly@public
inline fun ULongArray.reduce(operation: (acc: ULong, ULong) -> ULong): ULong {
    if (isEmpty())
        throw UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = this[0]
    for (index in 1..lastIndex) {
        accumulator = operation(accumulator, this[index])
    }
    return

```

```

accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to
right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the
array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is
empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates
the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n
*/\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun UByteArray.reduce(operation: (acc: UByte, UByte) -> UByte): UByte {\n    if (isEmpty())\n        throw
UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = this[0]\n    for (index in
1..lastIndex) {\n        accumulator = operation(accumulator, this[index])\n    }\n    return accumulator\n}\n\n/**\n *
Accumulates value starting with the first element and applying [operation] from left to right\n * to current
accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty
in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n *
@param [operation] function that takes current accumulator value and an element,\n * and calculates the next
accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n
*/\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.reduce(operation:
(acc: UShort, UShort) -> UShort): UShort {\n    if (isEmpty())\n        throw
UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = this[0]\n    for (index in
1..lastIndex) {\n        accumulator = operation(accumulator, this[index])\n    }\n    return accumulator\n}\n\n/**\n *
Accumulates value starting with the first element and applying [operation] from left to right\n * to current
accumulator value and each element with its index in the original array.\n * \n * Throws an exception if this array is
empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null`
when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current
accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduce\n
*/\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UIntArray.reduceIndexed(operation: (index: Int, acc: UInt, UInt) -> UInt): UInt {\n    if (isEmpty())\n
throw UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = this[0]\n    for
(index in 1..lastIndex) {\n        accumulator = operation(index, accumulator, this[index])\n    }\n    return
accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to
right\n * to current accumulator value and each element with its index in the original array.\n * \n * Throws an
exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull]
instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an
element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n *
@sample samples.collections.Collections.Aggregates.reduce\n
*/\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.reduceIndexed(operation: (index: Int, acc: ULong, ULong) -> ULong): ULong {\n    if (isEmpty())\n
throw UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = this[0]\n    for
(index in 1..lastIndex) {\n        accumulator = operation(index, accumulator, this[index])\n    }\n    return
accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to
right\n * to current accumulator value and each element with its index in the original array.\n * \n * Throws an
exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull]
instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an
element, current accumulator value and the element itself,\n * and calculates the next
accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n
*/\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.reduceIndexed(operation: (index: Int, acc: UByte, UByte) -> UByte): UByte {\n    if (isEmpty())\n
throw UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = this[0]\n    for

```

(index in 1..lastIndex) {\n accumulator = operation(index, accumulator, this[index])\n }\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with the first element and applying [operation] from left to right\n \* to current accumulator value and each element with its index in the original array.\n \* \n \* Throws an exception if this array is empty. If the array can be empty in an expected way,\n \* please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n \* \n \* @param [operation] function that takes the index of an element,

current accumulator value and the element itself,\n \* and calculates the next accumulator value.\n \* \n \* @sample samples.collections.Collections.Aggregates.reduce\n

```
*/\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.reduceIndexed(operation: (index: Int, acc: UShort, UShort) -> UShort): UShort {\n if (isEmpty())\n throw UnsupportedOperationException("Empty array can't be reduced.")\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(index, accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and
```

calculates the next accumulator value.\n \* \n \* @sample samples.collections.Collections.Aggregates.reduceOrNull\n

```
*/\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.reduceIndexedOrNull(operation: (index: Int, acc: UInt, UInt) -> UInt): UInt? {\n if (isEmpty())\n return null\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(index, accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n
```

```
*/\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.reduceIndexedOrNull(operation: (index: Int, acc: ULong, ULong) -> ULong): ULong? {\n if (isEmpty())\n return null\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(index, accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n
```

```
*/\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.reduceIndexedOrNull(operation: (index: Int, acc: UByte, UByte) -> UByte): UByte? {\n if (isEmpty())\n return null\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(index, accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n
```

```
*/\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.reduceIndexedOrNull(operation: (index: Int, acc: UShort, UShort) -> UShort): UShort? {\n if (isEmpty())\n return null\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(index, accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the first
```

element and applying [operation] from left to right to current accumulator value and each element. Returns null if the array is empty. @param [operation] function that takes current accumulator value and an element and calculates the next accumulator value. @sample

```

samples.collections.Collections.Aggregates.reduceOrNull
*/\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.reduceOrNull(operation: (acc: UInt, UInt) -> UInt): UInt? {\n if (isEmpty())\n return null\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right to current accumulator value and each element.\n * Returns `null` if the array is empty.\n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * @sample samples.collections.Collections.Aggregates.reduceOrNull
*/\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.reduceOrNull(operation: (acc: ULong, ULong) -> ULong): ULong? {\n if (isEmpty())\n return null\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right to current accumulator value and each element.\n * Returns `null` if the array is empty.\n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * @sample samples.collections.Collections.Aggregates.reduceOrNull
*/\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.reduceOrNull(operation: (acc: UByte, UByte) -> UByte): UByte? {\n if (isEmpty())\n return null\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right to current accumulator value and each element.\n * Returns `null` if the array is empty.\n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * @sample samples.collections.Collections.Aggregates.reduceOrNull
*/\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.reduceOrNull(operation: (acc: UShort, UShort) -> UShort): UShort? {\n if (isEmpty())\n return null\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left to each element and current accumulator value.\n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty.\n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the next accumulator value.\n * @sample samples.collections.Collections.Aggregates.reduceRight
*/\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.reduceRight(operation: (UInt, acc: UInt) -> UInt): UInt {\n var index = lastIndex\n if (index < 0)\n throw UnsupportedOperationException("Empty array can't be reduced.")\n var accumulator = get(index--)\n while (index >= 0) {\n accumulator = operation(get(index--), accumulator)\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left to each element and current accumulator value.\n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty.\n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the next

```

```

accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.reduceRight(operation: (UByte, acc: UByte) -> UByte): UByte {\n  var index = lastIndex\n  if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n  var accumulator =
get(index--)\n  while (index >= 0) {\n    accumulator = operation(get(index--), accumulator)\n  }\n  return
accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to
left\n * to each element and current accumulator value.\n * \n * Throws an exception if this array is empty. If the
array can be empty in an expected way,\n * please use [reduceRightOrNull] instead. It returns `null` when its
receiver is empty.\n * \n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the
next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.reduceRight(operation: (UShort, acc: UShort) -> UShort): UShort {\n  var index = lastIndex\n  if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n  var accumulator =
get(index--)\n  while (index >= 0) {\n    accumulator = operation(get(index--), accumulator)\n  }\n  return
accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to
left\n * to each element with its index in the original array and current accumulator value.\n * \n * Throws an
exception if this array is empty. If the array can be empty in an expected way,\n * please use
[reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation]
function that takes the index
of an element, the element itself and current accumulator value,\n * and calculates the next accumulator value.\n *
\n * @sample samples.collections.Collections.Aggregates.reduceRight\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.reduceRightIndexed(operation: (index: Int, UInt, acc: UInt) -> UInt): UInt {\n  var index = lastIndex\n
if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n  var accumulator =
get(index--)\n  while (index >= 0) {\n    accumulator = operation(index, get(index), accumulator)\n    --index\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation]
from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n *
Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use
[reduceRightIndexedOrNull]
instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an
element, the element itself and current accumulator value,\n * and calculates the next accumulator value.\n * \n *
@sample samples.collections.Collections.Aggregates.reduceRight\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.reduceRightIndexed(operation: (index: Int, ULong, acc: ULong) -> ULong): ULong {\n  var index =
lastIndex\n  if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n  var
accumulator = get(index--)\n  while (index >= 0) {\n    accumulator = operation(index, get(index),
accumulator)\n    --index\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with the last

```

element and applying [operation] from right to left to each element with its index in the original array and current accumulator value. Throws

an exception if this array is empty. If the array can be empty in an expected way, please use [reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty. @param [operation] function that takes the index of an element, the element itself and current accumulator value, and calculates the next accumulator value. @sample samples.collections.Collections.Aggregates.reduceRight

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun  
UByteArray.reduceRightIndexed(operation: (index: Int, UByte, acc: UByte) -> UByte): UByte {\n    var index =  
lastIndex\n    if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n    var  
accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(index, get(index),  
accumulator)\n        --index\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the last  
element and applying [operation]
```

from right to left to each element with its index in the original array and current accumulator value. Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty. @param [operation] function that takes the index of an element, the element itself and current accumulator value, and calculates the next accumulator value. @sample samples.collections.Collections.Aggregates.reduceRight

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun  
UShortArray.reduceRightIndexed(operation: (index: Int, UShort, acc: UShort) -> UShort): UShort {\n    var index =  
lastIndex\n    if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n    var  
accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(index, get(index),  
accumulator)\n        --index\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying  
[operation] from right to left to each element with its index in the original array and current accumulator value.
```

Returns `null` if the array is empty. @param [operation] function that takes the index of an element, the element itself and current accumulator value, and calculates the next accumulator value. @sample samples.collections.Collections.Aggregates.reduceRightOrNull

```
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun  
UIntArray.reduceRightIndexedOrNull(operation: (index: Int, UInt, acc: UInt) -> UInt): UInt? {\n    var index =  
lastIndex\n    if (index < 0) return null\n    var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(index, get(index), accumulator)\n        --index\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting
```

with the last element and applying [operation] from right to left to each element with its index in the original array and current accumulator value. Returns `null` if the array is empty. @param [operation] function that takes the index of an element, the element itself and current accumulator value, and calculates the next accumulator value. @sample samples.collections.Collections.Aggregates.reduceRightOrNull

```
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun  
ULongArray.reduceRightIndexedOrNull(operation: (index: Int, ULong, acc: ULong) -> ULong): ULong? {\n    var  
index = lastIndex\n    if (index < 0) return null\n    var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(index, get(index), accumulator)\n        --index\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left
```

to each element with its index in the original array and current accumulator value. Returns `null` if the array is empty. @param [operation] function that takes the index of an element, the element itself and current accumulator value, and calculates the next accumulator value. @sample samples.collections.Collections.Aggregates.reduceRightOrNull

```
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun  
UByteArray.reduceRightIndexedOrNull(operation: (index: Int, UByte, acc: UByte) -> UByte): UByte? {\n    var  
index = lastIndex\n    if (index < 0) return null\n    var accumulator = get(index--)\n    while (index >= 0) {\n
```



```

accumulator = operation(index, get(index), accumulator)\n    --index\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * Returns `null` if the array is empty.\n * @param [operation] function that takes the index of an element, the element itself and current accumulator value,\n * and calculates the next accumulator value.\n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n */\n\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.reduceRightIndexedOrNull(operation: (index: Int, UShort, acc: UShort) -> UShort): UShort? {\n    var index = lastIndex\n    if (index < 0) return null\n    var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(index, get(index), accumulator)\n        --index\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * Returns `null` if the array is empty.\n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the next accumulator value.\n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n */\n\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.reduceRightOrNull(operation: (UInt, acc: UInt) -> UInt): UInt? {\n    var index = lastIndex\n    if (index < 0) return null\n    var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * Returns `null` if the array is empty.\n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the next accumulator value.\n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n */\n\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.reduceRightOrNull(operation: (ULong, acc: ULong) -> ULong): ULong? {\n    var index = lastIndex\n    if (index < 0) return null\n    var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * Returns `null` if the array is empty.\n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the next accumulator value.\n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n */\n\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.reduceRightOrNull(operation: (UByte, acc: UByte) -> UByte): UByte? {\n    var index = lastIndex\n    if (index < 0) return null\n    var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * Returns `null` if the array is empty.\n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the next accumulator value.\n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n */\n\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.reduceRightOrNull(operation: (UShort, acc: UShort) -> UShort): UShort? {\n    var index = lastIndex\n    if (index < 0) return null\n    var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n    }\n    return accumulator\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * @param

```

```

[operation] function that takes current accumulator value and an element, and calculates the next accumulator
value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UIntArray.runningFold(initial: R, operation: (acc: R, UInt) -> R): List<R> {\n  if (isEmpty()) return
listOf(initial)\n
    val result = ArrayList<R>(size + 1).apply { add(initial) }\n    var accumulator = initial\n    for (element in this) {\n
        accumulator = operation(accumulator, element)\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to
each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to
[operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n *
@param [operation] function that takes current accumulator value and an element, and calculates the next
accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
ULongArray.runningFold(initial: R, operation: (acc: R, ULong) -> R): List<R> {\n  if (isEmpty())
return listOf(initial)\n    val result = ArrayList<R>(size + 1).apply { add(initial) }\n    var accumulator = initial\n
for (element in this) {\n        accumulator = operation(accumulator, element)\n        result.add(accumulator)\n    }\n
return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying
[operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n
* Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the
previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an
element, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.runningFold\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UByteArray.runningFold(initial: R, operation: (acc: R,
UByte) -> R): List<R> {\n  if (isEmpty()) return listOf(initial)\n    val result = ArrayList<R>(size + 1).apply {
add(initial) }\n    var accumulator = initial\n    for (element in this) {\n        accumulator = operation(accumulator,
element)\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive
accumulation values generated by applying [operation] from left to right\n * to each element and current
accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should
not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation]
function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n *
@sample samples.collections.Collections.Aggregates.runningFold\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UShortArray.runningFold(initial:
R, operation: (acc: R, UShort) -> R): List<R> {\n  if (isEmpty()) return listOf(initial)\n    val result =
ArrayList<R>(size + 1).apply { add(initial) }\n    var accumulator = initial\n    for (element in this) {\n
        accumulator = operation(accumulator, element)\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to
each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n *
Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the
previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current
accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.runningFold\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun <R> UIntArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, UInt) -> R): List<R> {\n
if (isEmpty()) return listOf(initial)\n    val result = ArrayList<R>(size + 1).apply { add(initial) }\n    var accumulator
= initial\n    for (index in indices) {\n        accumulator = operation(index, accumulator, this[index])\n
        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation

```

values generated by applying [operation] from left to right to each element, its index in the original array and current accumulator value that starts with [initial] value. Note that `acc` value passed to [operation] function should not be mutated; otherwise it would affect the previous value in resulting list.

@param [operation] function that takes the index of an element, current accumulator value and the element itself, and calculates the next accumulator value.

```

@sample samples.collections.Collections.Aggregates.runningFold
*\/n@SinceKotlin("1.4")\/n@ExperimentalUnsignedTypes\/n@kotlin.internal.InlineOnly\/npublic inline fun <R>
ULongArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, ULong) -> R): List<R> {
    if (isEmpty()) return listOf(initial)
    val result = ArrayList<R>(size + 1).apply { add(initial) }
    var accumulator = initial
    for (index in indices) {
        accumulator = operation(index, accumulator, this[index])
        result.add(accumulator)
    }
    return result
}

```

Returns a list containing successive accumulation values generated by applying [operation] from left to right to each element, its index in the original array and current accumulator value that starts with [initial] value. Note that `acc` value passed to [operation] function should not be mutated; otherwise it would affect the previous value in resulting list.

@param [operation] function that takes the index of an element, current accumulator value and the element itself, and calculates the next accumulator value.

@sample samples.collections.Collections.Aggregates.runningFold

```

*\/n@SinceKotlin("1.4")\/n@ExperimentalUnsignedTypes\/n@kotlin.internal.InlineOnly\/npublic inline fun <R>
UByteArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, UByte) -> R): List<R> {
    if (isEmpty()) return listOf(initial)
    val result = ArrayList<R>(size + 1).apply { add(initial) }
    var accumulator = initial
    for (index in indices) {
        accumulator = operation(index, accumulator, this[index])
        result.add(accumulator)
    }
    return result
}

```

Returns a list containing successive accumulation values generated by applying [operation] from left to right to each element, its index in the original array and current accumulator value that starts with [initial] value. Note that `acc` value passed to [operation] function should not be mutated; otherwise it would affect the previous value in resulting list.

@param [operation] function that takes the index of an element, current accumulator value and the element itself, and calculates the next accumulator value.

@sample samples.collections.Collections.Aggregates.runningFold

```

*\/n@SinceKotlin("1.4")\/n@ExperimentalUnsignedTypes\/n@kotlin.internal.InlineOnly\/npublic inline fun <R>
UShortArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, UShort) -> R): List<R> {
    if (isEmpty()) return listOf(initial)
    val result = ArrayList<R>(size + 1).apply { add(initial) }
    var accumulator = initial
    for (index in indices) {
        accumulator = operation(index, accumulator, this[index])
        result.add(accumulator)
    }
    return result
}

```

Returns a list containing successive accumulation values generated by applying [operation] from left to right to each element and current accumulator value that starts with the first element of this array. Note that `acc` value passed to [operation] function should not be mutated; otherwise it would affect the previous value in resulting list.

@param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.

@sample samples.collections.Collections.Aggregates.runningReduce

```

*\/n@SinceKotlin("1.4")\/n@ExperimentalUnsignedTypes\/n@kotlin.internal.InlineOnly\/npublic inline fun
UIntArray.runningReduce(operation: (acc: UInt, UInt) -> UInt): List<UInt> {
    if (isEmpty()) return emptyList()
    var accumulator = this[0]
    val result = ArrayList<UInt>(size).apply { add(accumulator) }
    for (index in 1 until size) {
        accumulator = operation(accumulator, this[index])
        result.add(accumulator)
    }
    return result
}

```

Returns a list containing successive accumulation values generated by applying [operation] from left to right to each element and current accumulator value that starts with the first element of this array. Note that `acc` value passed to [operation] function should not be mutated; otherwise it would affect the previous value in resulting list.

@param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.

@sample samples.collections.Collections.Aggregates.runningReduce

```

*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.runningReduce(operation: (acc: ULong, ULong) -> ULong): List<ULong> {\n  if (isEmpty()) return
emptyList()\n  var accumulator = this[0]\n  val result = ArrayList<ULong>(size).apply { add(accumulator) }\n  for (index in 1 until size) {\n    accumulator = operation(accumulator, this[index])\n    result.add(accumulator)\n  }\n  return result\n}\n\n/*\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n *
to each element and current accumulator value that starts with the first element of this array.\n * \n * Note that `acc`
value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in
resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and
calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.runningReduce\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.runningReduce(operation: (acc: UByte, UByte) -> UByte): List<UByte> {\n  if (isEmpty()) return
emptyList()\n  var accumulator = this[0]\n  val result = ArrayList<UByte>(size).apply { add(accumulator) }\n
for (index in 1 until size) {\n    accumulator = operation(accumulator, this[index])\n    result.add(accumulator)\n  }\n  return result\n}\n\n/*\n * Returns a list containing successive accumulation
values generated by applying [operation] from left to right\n * to each element and current accumulator value that
starts with the first element of this array.\n * \n * Note that `acc` value passed to [operation] function should
not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation]
function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n *
@sample
samples.collections.Collections.Aggregates.runningReduce\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.runningReduce(operation: (acc: UShort, UShort) -> UShort): List<UShort> {\n  if (isEmpty()) return
emptyList()\n  var accumulator = this[0]\n  val result = ArrayList<UShort>(size).apply { add(accumulator) }\n
for (index in 1 until size)\n  {\n    accumulator = operation(accumulator, this[index])\n    result.add(accumulator)\n  }\n  return
result\n}\n\n/*\n * Returns a list containing successive accumulation values generated by applying [operation] from
left to right\n * to each element, its index in the original array and current accumulator value that starts with
the first
element of this array.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n *
otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes
the
index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator
value.\n * \n * @sample
samples.collections.Collections.Aggregates.runningReduce\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.runningReduceIndexed(operation: (index: Int, acc: UInt, UInt) -> UInt): List<UInt> {\n  if (isEmpty())
return
emptyList()\n  var accumulator = this[0]\n  val result = ArrayList<UInt>(size).apply { add(accumulator) }\n  for
(index in 1 until size) {\n    accumulator = operation(index, accumulator, this[index])\n    result.add(accumulator)\n  }\n  return result\n}\n\n/*\n * Returns a list containing successive accumulation
values generated by applying [operation] from left to right\n * to each element, its index in the original array
and
current accumulator value that starts with the first element of this array.\n * \n * Note that `acc` value passed
to
[operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n *
\n * @param [operation] function that takes the index of an element, current accumulator value\n * and the
element
itself, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.runningReduce\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.runningReduceIndexed(operation: (index: Int, acc: ULong, ULong) -> ULong):
List<ULong> {\n  if (isEmpty()) return emptyList()\n  var accumulator = this[0]\n  val result =
ArrayList<ULong>(size).apply { add(accumulator) }\n  for (index in 1 until size) {\n    accumulator =

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operation(index, accumulator, this[index])\n    result.add(accumulator)\n    }\n    return result\n}\n\n/**\n *
Returns a list containing successive accumulation values generated by applying [operation] from left to right\n *
to each element, its index in the original array and current accumulator value that starts with the first element of this
array.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would
affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element,
current accumulator value\n * and the element itself, and calculates the next accumulator
value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n
*/\n\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.runningReduceIndexed(operation: (index: Int, acc: UByte, UByte) -> UByte): List<UByte> {\n    if
(isEmpty()) return emptyList()\n    var accumulator = this[0]\n    val result = ArrayList<UByte>(size).apply {
add(accumulator) }\n    for (index in 1 until size) {\n        accumulator = operation(index, accumulator, this[index])\n
        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation
values generated by applying [operation] from left to right\n * to each element, its index in the original array and
current accumulator value that starts with the first element of this array.\n * \n * Note that `acc` value passed to
[operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n
* @param [operation] function that takes the index of an element, current accumulator value\n * and the element
itself, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.runningReduce\n
*/\n\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.runningReduceIndexed(operation: (index: Int, acc: UShort, UShort) -> UShort): List<UShort> {\n    if
(isEmpty()) return emptyList()\n    var accumulator = this[0]\n    val result = ArrayList<UShort>(size).apply {
add(accumulator) }\n    for (index in 1 until size) {\n        accumulator = operation(index, accumulator, this[index])\n
        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation
values generated by applying [operation] from left to right\n * to each element and current accumulator value that
starts with [initial] value.\n * \n * Note that `acc` value passed to [operation]
function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param
[operation] function that takes current accumulator value and an element, and calculates the next accumulator
value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n
*/\n\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n
@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.scan(initial: R, operation: (acc: R, UInt) -> R):
List<R> {\n    return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation
values generated by applying [operation] from left to right\n * to each element and current accumulator value that
starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n *
otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current
accumulator
value and an element, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.scan\n
*/\n\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n
@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.scan(initial: R, operation: (acc: R, ULong) -> R):
List<R> {\n    return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation
values generated by applying [operation] from left to right\n * to each element and current accumulator value that
starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n *
otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current
accumulator
value and an element, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.scan\n
*/\n\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n
@kotlin.internal.InlineOnly\npublic

```

```

inline fun <R> UByteArray.scan(initial: R, operation: (acc: R, UByte) -> R): List<R> {
    return runningFold(initial, operation)
}

/**
 * Returns a list containing successive accumulation values generated by
 * applying [operation] from left to right to each element and current accumulator value that starts with [initial]
 * value.
 * Note that `acc` value passed to [operation] function should not be mutated; otherwise it would
 * affect the previous value in resulting list.
 * @param [operation] function that takes current accumulator value
 * and an element, and calculates the next accumulator value.
 * @sample
 * samples.collections.Collections.Aggregates.scan
 */
@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
@WasExperimental(ExperimentalStdlibApi::class)
@kotlin.internal.InlineOnly
public inline fun <R> UShortArray.scan(initial: R, operation: (acc: R,
    UShort) -> R): List<R> {
    return runningFold(initial, operation)
}

/**
 * Returns a list containing
 * successive accumulation values generated by applying [operation] from left to right to each element, its index in
 * the original array and current accumulator value that starts with [initial] value.
 * Note that `acc` value passed
 * to [operation] function should not be mutated; otherwise it would affect the previous value in resulting list.
 * @param [operation] function that takes the index of an element, current accumulator value
 * and the element
 * itself, and calculates the next accumulator value.
 * @sample
 * samples.collections.Collections.Aggregates.scan
 */
@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
@WasExperimental(ExperimentalStdlibApi::class)
@kotlin.internal.InlineOnly
public inline fun <R> UIntArray.scanIndexed(initial: R, operation: (index: Int, acc: R,
    UInt) -> R): List<R> {
    return runningFoldIndexed(initial, operation)
}

/**
 * Returns a list containing successive accumulation values generated by applying [operation] from left to right
 * to each element, its index in the original array and current accumulator value that starts with [initial] value.
 * Note that `acc` value passed to [operation] function should not be mutated; otherwise it would affect the
 * previous value in resulting list.
 * @param [operation] function that takes the index of an element, current
 * accumulator value
 * and the element itself, and calculates the next accumulator value.
 * @sample
 * samples.collections.Collections.Aggregates.scan
 */
@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
@WasExperimental(ExperimentalStdlibApi::class)
@kotlin.internal.InlineOnly
public inline fun <R> ULongArray.scanIndexed(initial: R, operation: (index: Int, acc:
    R, ULong) -> R): List<R> {
    return runningFoldIndexed(initial, operation)
}

/**
 * Returns a list
 * containing successive accumulation values generated
 * by applying [operation] from left to right to each element, its index in the original array and current accumulator
 * value that starts with [initial] value.
 * Note that `acc` value passed to [operation] function should not be
 * mutated; otherwise it would affect the previous value in resulting list.
 * @param [operation] function that
 * takes the index of an element, current accumulator value
 * and the element itself, and calculates the next
 * accumulator value.
 * @sample
 * samples.collections.Collections.Aggregates.scan
 */
@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
@WasExperimental(ExperimentalStdlibApi::class)
@kotlin.internal.InlineOnly
public inline fun <R> UByteArray.scanIndexed(initial: R, operation: (index: Int, acc:
    R, UByte) -> R): List<R> {
    return runningFoldIndexed(initial, operation)
}

/**
 * Returns a list containing
 * successive accumulation values generated by applying [operation] from left to right to each element, its index
 * in the original array and current accumulator value that starts with [initial] value.
 * Note that `acc` value
 * passed to [operation] function should not be mutated; otherwise it would affect the previous value in resulting
 * list.
 * @param [operation] function that takes the index of an element, current accumulator value
 * and the
 * element itself, and calculates the next accumulator value.
 * @sample
 * samples.collections.Collections.Aggregates.scan
 */
@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
@WasExperimental(ExperimentalStdlibApi::class)
@kotlin.internal.InlineOnly
public inline fun <R> UShortArray.scanIndexed(initial: R, operation: (index: Int, acc:
    R, UShort) -> R): List<R> {
    return runningFoldIndexed(initial, operation)
}

/**
 * Returns the sum of all
 * values produced by [selector] function applied to each element in the array.
 * @Deprecated("Use sumOf
 * instead.", ReplaceWith("this.sumOf(selector)"))
 * @DeprecatedSinceKotlin(warningSince

```

```

= \"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.sumBy(selector: (UInt) -> UInt): UInt {\n    var sum: UInt = 0u\n    for (element in this) {\n        sum +=
selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\",
ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince =
\"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.sumBy(selector: (ULong) -> UInt): UInt {\n    var sum: UInt = 0u\n    for (element in this) {\n        sum
+= selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector]
function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\",
ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince
= \"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.sumBy(selector: (UByte) -> UInt): UInt {\n    var sum: UInt = 0u\n    for (element in this) {\n        sum
+= selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector]
function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\",
ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince =
\"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.sumBy(selector: (UShort) -> UInt): UInt {\n    var sum: UInt = 0u\n    for (element in this) {\n
sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector]
function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\",
ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince
= \"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.sumByDouble(selector: (UInt) -> Double): Double {\n    var sum: Double = 0.0\n    for (element in this)
{\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\",
ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince =
\"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.sumByDouble(selector: (ULong) -> Double): Double {\n    var sum: Double = 0.0\n    for (element in
this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\",
ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince
= \"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.sumByDouble(selector: (UByte) -> Double): Double {\n    var sum: Double = 0.0\n    for (element in
this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\",
ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince =
\"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.sumByDouble(selector: (UShort) -> Double): Double {\n    var sum: Double = 0.0\n    for (element in
this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\",
ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince =
\"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.sumOf(selector: (UInt) -> Double): Double {\n    var sum: Double = 0.toDouble()\n    for
(element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values
produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.sumOf(selector:

```

```

(ULong) -> Double): Double {\n  var sum: Double = 0.toDouble()\n  for (element in this) {\n    sum +=
selector(element)\n  }\n  return
sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the
array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfDouble")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.sumOf(selector:
(UByte) -> Double): Double {\n  var sum: Double = 0.toDouble()\n  for (element in this) {\n    sum +=
selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfDouble")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.sumOf(selector:
(UShort) -> Double): Double {\n  var sum: Double = 0.toDouble()\n  for (element in this) {\n    sum +=
selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfInt")\n
@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.sumOf(selector: (UInt) -
> Int): Int {\n  var sum: Int = 0.toInt()\n  for (element in this) {\n    sum += selector(element)\n  }\n  return
sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the
array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfInt")\n
@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.sumOf(selector: (ULong) -> Int): Int {\n  var sum: Int = 0.toInt()\n  for (element in this)
{\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfInt")\n
@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.sumOf(selector:
(UByte) -> Int): Int {\n  var sum: Int = 0.toInt()\n  for (element in this) {\n    sum += selector(element)\n  }\n
return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in
the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfInt")\n
@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UShortArray.sumOf(selector: (UShort) -> Int): Int {\n  var sum: Int = 0.toInt()\n  for (element in this)
{\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfLong")\n
@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.sumOf(selector: (UInt)
-> Long): Long {\n  var sum: Long = 0.toLong()\n  for (element in this) {\n    sum += selector(element)\n  }\n
return sum\n}\n\n/**\n * Returns the sum of all values produced
by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfLong")

```



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\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.sumOf(selector:
(ULong) -> Long): Long {\n    var sum: Long = 0.toLong()\n    for (element in this) {\n        sum +=
selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfLong")
\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.sumOf(selector:
(UByte) -> Long): Long {\n    var sum: Long = 0.toLong()\n    for (element
in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced
by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfLong")
\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.sumOf(selector:
(UShort) -> Long): Long {\n    var sum: Long = 0.toLong()\n    for (element in this) {\n        sum +=
selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfUInt")\n
\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.Inline
Only\npublic
inline fun UIntArray.sumOf(selector: (UInt) -> UInt): UInt {\n    var sum: UInt = 0.toUInt()\n    for (element in this)
{\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfUInt")\n
\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.Inline
Only\npublic inline fun ULongArray.sumOf(selector: (ULong) -> UInt): UInt {\n    var sum: UInt = 0.toUInt()\n
for (element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all
values produced by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfUInt")\n
\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.Inline
Only\npublic
inline fun UByteArray.sumOf(selector: (UByte) -> UInt): UInt {\n    var sum: UInt = 0.toUInt()\n    for (element in
this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfUInt")\n
\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.Inline
Only\npublic inline fun UShortArray.sumOf(selector: (UShort) -> UInt): UInt {\n    var sum: UInt =
0.toUInt()\n    for (element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the
sum of all values produced by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfULong\
")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.Inli
neOnly\npublic inline fun UIntArray.sumOf(selector: (UInt) -> ULong): ULong {\n    var sum: ULong =
0.toULong()\n    for (element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns
the sum of all values produced by [selector] function applied to each element in the array.\n

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*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfULong\
")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.Inli
neOnly\npublic
inline fun ULongArray.sumOf(selector: (ULong) -> ULong): ULong {\n    var sum: ULong = 0.toULong()\n    for
(element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values
produced by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfULong\
")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.Inli
neOnly\npublic inline fun UByteArray.sumOf(selector: (UByte) -> ULong): ULong {\n    var sum: ULong =
0.toULong()\n    for (element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns
the sum of all values
produced by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfULong\
")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.Inli
neOnly\npublic inline fun UShortArray.sumOf(selector: (UShort) -> ULong): ULong {\n    var sum: ULong =
0.toULong()\n    for (element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns a
list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has
length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UIntArray.zip(other: Array<out
R>): List<Pair<UInt, R>> {\n    return zip(other) { t1, t2 ->
t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the
same index.\n * The returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterable\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun <R> ULongArray.zip(other:
Array<out R>): List<Pair<ULong, R>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of
pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has
length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UByteArray.zip(other: Array<out
R>): List<Pair<UByte, R>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built
from the elements of `this` array and the [other] array with the same index.\n
* The returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterable\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UShortArray.zip(other:
Array<out R>): List<Pair<UShort, R>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of
values built from the elements of `this` array and the [other] array with the same index\n * using the provided
[transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n
*\n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V>
UIntArray.zip(other: Array<out R>, transform: (a: UInt, b: R) -> V): List<V> {\n    val size = minOf(size,
other.size)\n    val list = ArrayList<V>(size)\n    for (i in 0 until size) {\n        list.add(transform(this[i], other[i]))\n
    }\n    return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array
with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned
list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V>

```

```

ULongArray.zip(other: Array<out R>, transform: (a: ULong, b: R) -> V): List<V> {\n  val size = minOf(size,
other.size)\n  val list = ArrayList<V>(size)\n  for (i in 0 until size) {\n    list.add(transform(this[i], other[i]))\n  }\n  return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array
with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned
list has length of the shortest collection.\n
 * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V>
UByteArray.zip(other: Array<out R>, transform: (a: UByte, b: R) -> V): List<V> {\n  val size = minOf(size,
other.size)\n  val list = ArrayList<V>(size)\n  for (i in 0 until size) {\n    list.add(transform(this[i], other[i]))\n  }\n  return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array
with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned
list has length of the shortest collection.\n
 * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V>
UShortArray.zip(other: Array<out R>, transform: (a: UShort, b: R) -> V): List<V> {\n
  val size = minOf(size, other.size)\n  val list = ArrayList<V>(size)\n  for (i in 0 until size) {\n
list.add(transform(this[i], other[i]))\n  }\n  return list\n}\n\n/**\n * Returns a list of pairs built from the elements
of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n
 * \n * @sample samples.collections.Iterables.Operations.zipIterable\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UIntArray.zip(other:
Iterable<R>): List<Pair<UInt, R>> {\n  return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs
built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of
the shortest collection.\n
 * \n * @sample samples.collections.Iterables.Operations.zipIterable\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun <R> ULongArray.zip(other:
Iterable<R>): List<Pair<ULong, R>> {\n
  return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this`
collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n
 * \n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UByteArray.zip(other:
Iterable<R>): List<Pair<UByte, R>> {\n  return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs
built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of
the shortest collection.\n
 * \n * @sample samples.collections.Iterables.Operations.zipIterable\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UShortArray.zip(other:
Iterable<R>): List<Pair<UShort, R>> {\n  return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of
values built from the elements of `this` array and
the [other] collection with the same index\n * using the provided [transform] function applied to each pair of
elements.\n * The returned list has length of the shortest collection.\n
 * \n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V>
UIntArray.zip(other: Iterable<R>, transform: (a: UInt, b: R) -> V): List<V> {\n  val arraySize = size\n  val list =
ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n  var i = 0\n  for (element in other) {\n
if (i >= arraySize) break\n    list.add(transform(this[i++], element))\n  }\n  return list\n}\n\n/**\n * Returns a
list of values built from the elements of `this` array and the [other] collection with the same index\n * using the
provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest
collection.\n
 * \n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V>
ULongArray.zip(other: Iterable<R>, transform: (a: ULong, b: R) -> V): List<V> {\n  val arraySize = size\n  val
list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n  var i = 0\n  for (element in other)

```

```

{\n    if (i >= arraySize) break\n        list.add(transform(this[i++], element))\n    }\n    return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the\n * shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V>\n    UByteArray.zip(other: Iterable<R>,\n        transform: (a: UByte, b: R) -> V): List<V> {\n    val arraySize = size\n    val list =\n        ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n    var i = 0\n    for (element in other) {\n        if (i >= arraySize) break\n            list.add(transform(this[i++], element))\n        }\n    return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the\n * provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest\n * collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V>\n    UShortArray.zip(other: Iterable<R>, transform: (a: UShort, b: R) -> V): List<V> {\n    val arraySize = size\n    val\n    list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n    var i = 0\n    for (element in\n        other) {\n            if (i >= arraySize) break\n                list.add(transform(this[i++], element))\n            }\n    return list\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The\n * returned list has length of the shortest collection.\n * \n * @sample\n * samples.collections.Iterables.Operations.zipIterable\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun UIntArray.zip(other: UIntArray):\n    List<Pair<UInt, UInt>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from\n * the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest\n * collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun ULongArray.zip(other: ULongArray):\n    List<Pair<ULong, ULong>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns\n * a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list\n * has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun UByteArray.zip(other: UByteArray):\n    List<Pair<UByte, UByte>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built\n * from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the\n * shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun UShortArray.zip(other: UShortArray):\n    List<Pair<UShort, UShort>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values built\n * from the elements of `this` array and the [other] array with the same index\n * using the provided [transform]\n * function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample\n * samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>\n    UIntArray.zip(other: UIntArray, transform: (a: UInt, b: UInt) -> V): List<V> {\n    val size = minOf(size,\n        other.size)\n    val list = ArrayList<V>(size)\n    for (i in 0 until size) {\n        list.add(transform(this[i], other[i]))\n    }\n    return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array\n * with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned\n * list has length of the shortest array.\n * \n * @sample\n * samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>\n    ULongArray.zip(other: ULongArray, transform: (a: ULong, b: ULong) -> V): List<V> {\n    val size = minOf(size,\n        other.size)\n    val list = ArrayList<V>(size)\n    for (i in 0 until size) {\n        list.add(transform(this[i], other[i]))\n    }\n    return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array\n * with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned

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list has length of the shortest array.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>
UByteArray.zip(other: UByteArray, transform: (a: UByte, b: UByte) -> V): List<V> {\n    val size = minOf(size,
other.size)\n    val list = ArrayList<V>(size)\n    for (i in 0 until size) {\n        list.add(transform(this[i], other[i]))\n    }\n    return list\n}\n\n/**\n * Returns a list
of values built from the elements of `this` array and the [other] array with the same index\n * using the provided
[transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n *
@sample samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>
UShortArray.zip(other: UShortArray, transform: (a: UShort, b: UShort) -> V): List<V> {\n    val size = minOf(size,
other.size)\n    val list = ArrayList<V>(size)\n    for (i in 0 until size) {\n        list.add(transform(this[i], other[i]))\n    }\n    return list\n}\n\n/**\n * Returns the sum of all elements in the array.\n
*\n@kotlin.jvm.JvmName("sumOfUInt")\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedT
ypes::class)\npublic fun Array<out UInt>.sum(): UInt {\n    var sum: UInt = 0u\n    for (element in this) {\n        sum
+= element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n
*\n@kotlin.jvm.JvmName("sumOfULong")\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsigned
Types::class)\npublic fun Array<out ULong>.sum(): ULong {\n    var sum: ULong = 0uL\n    for (element in this)
{\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n
*\n@kotlin.jvm.JvmName("sumOfUByte")\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsigned
Types::class)\npublic fun Array<out UByte>.sum(): UInt {\n    var sum: UInt = 0u\n    for (element in this) {\n
sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n
*\n@kotlin.jvm.JvmName("sumOfUShort")\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsigned
Types::class)\npublic fun Array<out UShort>.sum(): UInt {\n    var sum: UInt = 0u\n    for (element in this) {\n
sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all
elements in the array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.sum(): UInt {\n    return storage.sum().toUInt()\n}\n\n/**\n * Returns the sum of all elements in the
array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.sum(): ULong {\n    return storage.sum().toULong()\n}\n\n/**\n * Returns the sum of all elements in
the array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun UByteArray.sum(): UInt {\n    return sumOf { it.toUInt() }\n}\n\n/**\n * Returns the sum of all elements in the
array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.sum(): UInt {\n    return sumOf { it.toUInt() }\n}\n\n"/**\n * Copyright 2010-2021 JetBrains s.r.o. and
Kotlin Programming Language contributors.\n * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("UCollectionsKt")\n\npackage
kotlin.collections\n\n/\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\nimport kotlin.random.*\nimport
kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns an array of UByte containing all of the
elements of this collection.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
Collection<UByte>.toUByteArray(): UByteArray {\n    val result = UByteArray(size)\n    var index = 0\n    for
(element in this)\n        result[index++] = element\n    return result\n}\n\n/**\n * Returns an array of UInt containing
all of the elements of this collection.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
Collection<UInt>.toUIntArray(): UIntArray {\n    val result = UIntArray(size)\n
var index = 0\n    for (element in this)\n        result[index++] = element\n    return result\n}\n\n/**\n * Returns an
array of ULong containing all of the elements of this collection.\n

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*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun Collection<ULong>.toULongArray():
ULongArray {\n    val result = ULongArray(size)\n    var index = 0\n    for (element in this)\n        result[index++] =
element\n    return result\n}\n\n/**\n * Returns an array of UShort containing all of the elements of this collection.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun Collection<UShort>.toUShortArray():
UShortArray {\n    val result = UShortArray(size)\n    var index = 0\n    for (element in this)\n        result[index++] =
element\n    return result\n}\n\n/**\n * Returns the sum of all elements in the collection.\n
*\n@kotlin.jvm.JvmName("sumOfUInt")\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedT
ypes::class)\npublic fun Iterable<UInt>.sum():
    UInt {\n    var sum: UInt = 0u\n    for (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n *
Returns the sum of all elements in the collection.\n
*\n@kotlin.jvm.JvmName("sumOfULong")\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsigned
Types::class)\npublic fun Iterable<ULong>.sum(): ULong {\n    var sum: ULong = 0uL\n    for (element in this) {\n
        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n
*\n@kotlin.jvm.JvmName("sumOfUByte")\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsigned
Types::class)\npublic fun Iterable<UByte>.sum(): UInt {\n    var sum: UInt = 0u\n    for (element in this) {\n
        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n
*\n@kotlin.jvm.JvmName("sumOfUShort")\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsigned
Types::class)\npublic fun Iterable<UShort>.sum(): UInt {\n
    var sum: UInt = 0u\n    for (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n"/*\n * Copyright
2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("UComparisonsKt")\n\npackage
kotlin.comparisons\n\n/\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\n/\n\nimport kotlin.random.*\n\n/**\n * Returns the
greater of two values.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun maxOf(a: UInt, b:
UInt): UInt {\n    return if (a >= b) a else b\n}\n\n/**\n * Returns the greater of two values.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun maxOf(a: ULong,
b: ULong): ULong {\n    return
if (a >= b) a else b\n}\n\n/**\n * Returns the greater of two values.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun maxOf(a: UByte,
b: UByte): UByte {\n    return if (a >= b) a else b\n}\n\n/**\n * Returns the greater of two values.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun maxOf(a: UShort,
b: UShort): UShort {\n    return if (a >= b) a else b\n}\n\n/**\n * Returns the greater of three values.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\n
public inline fun maxOf(a: UInt, b: UInt, c: UInt): UInt {\n    return maxOf(a, maxOf(b, c))\n}\n\n/**\n * Returns
the greater of three values.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\n
public inline fun maxOf(a: ULong, b: ULong, c: ULong): ULong {\n    return maxOf(a, maxOf(b, c))\n}\n\n/**\n *
Returns the greater of three values.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\n
public inline fun maxOf(a: UByte, b: UByte, c: UByte): UByte {\n    return maxOf(a, maxOf(b, c))\n}\n\n/**\n *
Returns the greater of three values.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\n
public inline fun maxOf(a: UShort, b: UShort, c: UShort): UShort {\n    return maxOf(a, maxOf(b, c))\n}\n\n/**\n *
Returns the greater of the given values.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun
maxOf(a: UInt, vararg other: UInt): UInt {\n    var max = a\n    for (e in other) max = maxOf(max, e)\n    return
max\n}\n\n/**\n * Returns the greater of the given values.\n

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*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun maxOf(a: ULong, vararg other: ULong):
ULong {\n    var max = a\n    for (e in other) max = maxOf(max, e)\n    return max\n}\n\n/**\n * Returns the greater
of the
given values.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun maxOf(a: UByte, vararg
other: UByte): UByte {\n    var max = a\n    for (e in other) max = maxOf(max, e)\n    return max\n}\n\n/**\n *
Returns the greater of the given values.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun
maxOf(a: UShort, vararg other: UShort): UShort {\n    var max = a\n    for (e in other) max = maxOf(max, e)\n
return max\n}\n\n/**\n * Returns the smaller of two values.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun minOf(a: UInt, b:
UInt): UInt {\n    return if (a <= b) a else b\n}\n\n/**\n * Returns the smaller of two values.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun minOf(a: ULong,
b: ULong): ULong {\n    return if (a <= b) a else b\n}\n\n/**\n * Returns the smaller of two values.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic
fun minOf(a: UByte, b: UByte): UByte {\n    return if (a <= b) a else b\n}\n\n/**\n * Returns the smaller of two
values.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
minOf(a: UShort, b: UShort): UShort {\n    return if (a <= b) a else b\n}\n\n/**\n * Returns the smaller of three
values.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\n
public inline fun minOf(a: UInt, b: UInt, c: UInt): UInt {\n    return minOf(a, minOf(b, c))\n}\n\n/**\n * Returns
the smaller of three values.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\n
public inline fun minOf(a: ULong, b: ULong, c: ULong): ULong {\n    return minOf(a, minOf(b, c))\n}\n\n/**\n *
Returns the smaller of three values.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\n
public inline fun minOf(a: UByte, b: UByte,
c: UByte): UByte {\n    return minOf(a, minOf(b, c))\n}\n\n/**\n * Returns the smaller of three values.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\n
public inline fun minOf(a: UShort, b: UShort, c: UShort): UShort {\n    return minOf(a, minOf(b, c))\n}\n\n/**\n *
Returns the smaller of the given values.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun
minOf(a: UInt, vararg other: UInt): UInt {\n    var min = a\n    for (e in other) min = minOf(min, e)\n    return
min\n}\n\n/**\n * Returns the smaller of the given values.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun minOf(a: ULong, vararg other: ULong):
ULong {\n    var min = a\n    for (e in other) min = minOf(min, e)\n    return min\n}\n\n/**\n * Returns the smaller
of the given values.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun minOf(a: UByte,
vararg other: UByte): UByte {\n    var min = a\n    for (e
in other) min = minOf(min, e)\n    return min\n}\n\n/**\n * Returns the smaller of the given values.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun minOf(a: UShort, vararg other: UShort):
UShort {\n    var min = a\n    for (e in other) min = minOf(min, e)\n    return min\n}\n\n"/\n\n * Copyright 2010-
2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("URangesKt")\n\npackage
kotlin.ranges\n\n/\n\n NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\n\nimport kotlin.random.*\n\n/**\n * Returns a
random element from this range.\n * \n * @throws IllegalArgumentException if this range is empty.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\n
public
inline fun UIntRange.random(): UInt {\n    return random(Random)\n}\n\n/**\n * Returns a random element from
this range.\n * \n * @throws IllegalArgumentException if this range is empty.\n

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*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULongRange.random(): ULong {\n    return random(Random)\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UIntRange.random(random: Random): UInt {\n    try {\n        return random.nextUInt(this)\n    } catch(e: IllegalArgumentException) {\n        throw NoSuchElementException(e.message)\n    }\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun ULongRange.random(random: Random): ULong {\n    try {\n        return random.nextULong(this)\n    } catch(e: IllegalArgumentException) {\n        throw NoSuchElementException(e.message)\n    }\n}\n\n/**\n * Returns a random element from this range, or `null` if this range is empty.\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UIntRange.randomOrNull(): UInt? {\n    return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this range, or `null` if this range is empty.\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULongRange.randomOrNull(): ULong? {\n    return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness, or `null` if this range is empty.\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\npublic fun UIntRange.randomOrNull(random: Random): UInt? {\n    if (isEmpty())\n        return null\n    return random.nextUInt(this)\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness, or `null` if this range is empty.\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\npublic fun ULongRange.randomOrNull(random: Random): ULong? {\n    if (isEmpty())\n        return null\n    return random.nextULong(this)\n}\n\n/**\n * Returns `true` if this range contains the specified [element].\n * \n * Always returns `false` if the [element] is `null`.\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline operator fun UIntRange.contains(element: UInt?): Boolean {\n    return element != null && contains(element)\n}\n\n/**\n * Returns `true` if this range contains the specified [element].\n * \n * Always returns `false` if the [element] is `null`.\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline operator fun ULongRange.contains(element: ULong?): Boolean {\n    return element != null && contains(element)\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun UIntRange.contains(value: UByte): Boolean {\n    return contains(value.toUInt())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun ULongRange.contains(value: UByte): Boolean {\n    return contains(value.toULong())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun ULongRange.contains(value: UInt): Boolean {\n    return contains(value.toULong())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun UIntRange.contains(value: ULong): Boolean {\n    return (value shr UInt.SIZE_BITS) == 0uL && contains(value.toUInt())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun

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UIntRange.contains(value: UShort): Boolean { \n    return contains(value.toUInt())\n}\n\n/**\n * Checks if the
specified [value] belongs to this range.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun
ULongRange.contains(value: UShort): Boolean { \n    return contains(value.toULong())\n}\n\n/**\n * Returns a
progression
from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal
to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun
UByte.downTo(to: UByte): UIntProgression { \n    return UIntProgression.fromClosedRange(this.toUInt(),
to.toUInt(), -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -
1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value
the returned progression is empty.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun
UInt.downTo(to: UInt): UIntProgression { \n    return UIntProgression.fromClosedRange(this, to, -1)\n}\n\n/**\n *
Returns a progression from this value down to the specified [to] value with the
step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this`
value the returned progression is empty.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun
ULong.downTo(to: ULong): ULongProgression { \n    return ULongProgression.fromClosedRange(this, to, -
1L)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n *
The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the
returned progression is empty.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun
UShort.downTo(to: UShort): UIntProgression { \n    return UIntProgression.fromClosedRange(this.toUInt(),
to.toUInt(), -1)\n}\n\n/**\n * Returns a progression that goes over the same range in the opposite direction with the
same step.\n * \n *\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic
fun UIntProgression.reversed(): UIntProgression { \n    return UIntProgression.fromClosedRange(last, first, -
step)\n}\n\n/**\n * Returns a progression that goes over the same range in the opposite direction with the same
step.\n * \n *\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
ULongProgression.reversed(): ULongProgression { \n    return ULongProgression.fromClosedRange(last, first, -
step)\n}\n\n/**\n * Returns a progression that goes over the same range with the given step.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun
UIntProgression.step(step: Int): UIntProgression { \n    checkStepIsPositive(step > 0, step)\n    return
UIntProgression.fromClosedRange(first, last, if (this.step > 0) step else -step)\n}\n\n/**\n * Returns a progression
that goes over the same range with the given step.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun
ULongProgression.step(step: Long): ULongProgression { \n    checkStepIsPositive(step > 0, step)\n    return
ULongProgression.fromClosedRange(first, last, if (this.step > 0) step else -step)\n}\n\n/**\n * Returns a range
from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this`
value, then the returned range is empty.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun
UByte.until(to: UByte): UIntRange { \n    if (to <= UByte.MIN_VALUE) return UIntRange.EMPTY\n    return
this.toUInt() .. (to - 1u).toUInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to]
value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun UInt.until(to:
UInt): UIntRange { \n    if (to <= UInt.MIN_VALUE)
return UIntRange.EMPTY\n    return this .. (to - 1u).toUInt()\n}\n\n/**\n * Returns a range from this value up to
but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned

```

```

range is empty.\n *^n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic
infix fun ULong.until(to: ULong): ULongRange {\n    if (to <= ULong.MIN_VALUE) return
ULongRange.EMPTY\n    return this .. (to - 1u).toULong()\n}\n\n/**\n * Returns a range from this value up to but
excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned
range is empty.\n *^n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic
infix fun UShort.until(to: UShort): UIntRange {\n    if (to <= UShort.MIN_VALUE) return UIntRange.EMPTY\n
return this.toUInt() .. (to - 1u).toUInt()\n}\n\n/**\n * Ensures that this value is not less than the specified
[minimumValue].\n
 * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n *
\n * @sample samples.comparisons.ComparableOps.coerceAtLeastUnsigned\n
*^n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
UInt.coerceAtLeast(minimumValue: UInt): UInt {\n    return if (this < minimumValue) minimumValue else
this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value
if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample
samples.comparisons.ComparableOps.coerceAtLeastUnsigned\n
*^n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
ULong.coerceAtLeast(minimumValue: ULong): ULong {\n    return if (this < minimumValue) minimumValue else
this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value
if it's greater than or
equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample
samples.comparisons.ComparableOps.coerceAtLeastUnsigned\n
*^n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
UByte.coerceAtLeast(minimumValue: UByte): UByte {\n    return if (this < minimumValue) minimumValue else
this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value
if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample
samples.comparisons.ComparableOps.coerceAtLeastUnsigned\n
*^n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
UShort.coerceAtLeast(minimumValue: UShort): UShort {\n    return if (this < minimumValue) minimumValue else
this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this
value if it's less than or equal to the [maximumValue] or the [maximumValue]
otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMostUnsigned\n
*^n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
UInt.coerceAtMost(maximumValue: UInt): UInt {\n    return if (this > maximumValue) maximumValue else
this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this
value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample
samples.comparisons.ComparableOps.coerceAtMostUnsigned\n
*^n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
ULong.coerceAtMost(maximumValue: ULong): ULong {\n    return if (this > maximumValue) maximumValue else
this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this
value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample
samples.comparisons.ComparableOps.coerceAtMostUnsigned\n
*^n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
UByte.coerceAtMost(maximumValue: UByte): UByte {\n    return if (this > maximumValue) maximumValue else
this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this
value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample
samples.comparisons.ComparableOps.coerceAtMostUnsigned\n
*^n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
UShort.coerceAtMost(maximumValue: UShort): UShort {\n    return if (this > maximumValue) maximumValue

```

```

else this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n
 * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or
 [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample
 samples.comparisons.ComparableOps.coerceInUnsigned\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
 UInt.coerceIn(minimumValue: UInt, maximumValue: UInt): UInt {\n if (minimumValue > maximumValue)
 throw IllegalArgumentException("Cannot coerce value to an empty range: maximum $maximumValue is less than
 minimum $minimumValue.")\n if (this < minimumValue) return minimumValue\n if (this > maximumValue)
 return maximumValue\n return this\n}\n\n/**\n * Ensures that this value lies in the specified range
 [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value
 is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample
 samples.comparisons.ComparableOps.coerceInUnsigned\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
 ULong.coerceIn(minimumValue: ULong, maximumValue: ULong): ULong {\n if (minimumValue
 > maximumValue) throw IllegalArgumentException("Cannot coerce value to an empty range: maximum
 $maximumValue is less than minimum $minimumValue.")\n if (this < minimumValue) return minimumValue\n
 if (this > maximumValue) return maximumValue\n return this\n}\n\n/**\n * Ensures that this value lies in the
 specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or
 [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than
 [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceInUnsigned\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
 UByte.coerceIn(minimumValue: UByte, maximumValue: UByte): UByte {\n if (minimumValue >
 maximumValue) throw IllegalArgumentException("Cannot coerce value to an empty range: maximum
 $maximumValue is less than minimum $minimumValue.")\n if (this < minimumValue) return minimumValue\n
 if (this
 > maximumValue) return maximumValue\n return this\n}\n\n/**\n * Ensures that this value lies in the specified
 range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this
 value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n *
 @sample samples.comparisons.ComparableOps.coerceInUnsigned\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
 UShort.coerceIn(minimumValue: UShort, maximumValue: UShort): UShort {\n if (minimumValue >
 maximumValue) throw IllegalArgumentException("Cannot coerce value to an empty range: maximum
 $maximumValue is less than minimum $minimumValue.")\n if (this < minimumValue) return minimumValue\n
 if (this > maximumValue) return maximumValue\n return this\n}\n\n/**\n * Ensures that this value lies in the
 specified [range].\n * \n * @return this value if it's in the [range], or `range.start` if this value is
 less than `range.start`, or `range.endInclusive` if this value is greater than `range.endInclusive`.\n * \n * @sample
 samples.comparisons.ComparableOps.coerceInUnsigned\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
 UInt.coerceIn(range: ClosedRange<UInt>): UInt {\n if (range is ClosedFloatingPointRange) {\n return
 this.coerceIn<UInt>(range)\n } \n if (range.isEmpty()) throw IllegalArgumentException("Cannot coerce value to
 an empty range: $range.")\n return when {\n this < range.start -> range.start\n this > range.endInclusive -
 > range.endInclusive\n else -> this\n }\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n
 * @return this value if it's in the [range], or `range.start` if this value is less than `range.start`, or
 `range.endInclusive` if this value is greater than `range.endInclusive`.\n * \n * @sample
 samples.comparisons.ComparableOps.coerceInUnsigned\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic
 fun ULong.coerceIn(range: ClosedRange<ULong>): ULong {\n if (range is ClosedFloatingPointRange) {\n
 return this.coerceIn<ULong>(range)\n } \n if (range.isEmpty()) throw IllegalArgumentException("Cannot

```

coerce value to an empty range: \$range.)\n return when {\n this < range.start -> range.start\n this > range.endInclusive -> range.endInclusive\n else -> this\n }\n}\n\n", /\*\n \* Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n

```
*\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("USequencesKt")\n\npackage
```

```
kotlin.sequences\n\n/\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:
```

```
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\nimport kotlin.random.*\n
```

```
* Returns the sum of all elements in the sequence.\n * The operation is _terminal_.
```

```
*\n@kotlin.jvm.JvmName("sumOfUInt")\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Sequence<UInt>.sum(): UInt {\n var sum: UInt = 0u\n for (element in this) {\n sum += element\n }\n return sum\n}\n\n/*\n * Returns the sum of all elements in the sequence.\n * The operation is _terminal_.
```

```
*\n@kotlin.jvm.JvmName("sumOfULong")\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Sequence<ULong>.sum(): ULong {\n var sum: ULong = 0uL\n for (element in this) {\n sum += element\n }\n return sum\n}\n\n/*\n * Returns the sum of all elements in the sequence.\n * The operation is _terminal_.
```

```
*\n@kotlin.jvm.JvmName("sumOfUByte")\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Sequence<UByte>.sum(): UInt {\n var sum: UInt = 0u\n for (element in this) {\n sum += element\n }\n return sum\n}\n\n/*\n * Returns the sum of all elements in the sequence.\n * The operation is _terminal_.
```

```
*\n@kotlin.jvm.JvmName("sumOfUShort")\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Sequence<UShort>.sum(): UInt {\n var sum: UInt = 0u\n for (element in this) {\n sum += element\n }\n return sum\n}\n\n", /*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
```

```
*\n\npackage kotlin\n\npublic expect open class Error : Throwable {\n constructor()\n constructor(message: String?)\n constructor(message: String?, cause: Throwable?)\n constructor(cause: Throwable?)\n}\n\npublic expect open class Exception : Throwable {\n constructor()\n constructor(message: String?)\n constructor(message: String?, cause: Throwable?)\n constructor(cause: Throwable?)\n}\n\npublic expect open class RuntimeException : Exception {\n constructor()\n constructor(message: String?)\n constructor(message: String?, cause: Throwable?)\n constructor(cause: Throwable?)\n}\n\npublic expect open class IllegalArgumentException : RuntimeException {\n constructor()\n constructor(message: String?)\n constructor(message: String?, cause: Throwable?)\n constructor(cause: Throwable?)\n}\n\npublic expect open class IllegalStateException : RuntimeException {\n constructor()\n constructor(message: String?)\n constructor(message: String?, cause: Throwable?)\n constructor(cause: Throwable?)\n}\n\npublic expect open class IndexOutOfBoundsException : RuntimeException {\n constructor()\n constructor(message: String?)\n}\n\npublic expect open class ConcurrentModificationException : RuntimeException {\n constructor()\n constructor(message: String?)\n}\n\n@Deprecated("The constructor
```

```
is not supported on all platforms and will be removed from kotlin-stdlib-common soon.", level =
```

```
DeprecationLevel.ERROR)\n constructor(message: String?, cause: Throwable?)\n @Deprecated("The
```

```
constructor is not supported on all platforms and will be removed from kotlin-stdlib-common soon.", level =
```

```
DeprecationLevel.ERROR)\n constructor(cause: Throwable?)\n}\n\npublic expect open class
```

```
UnsupportedOperationException : RuntimeException {\n constructor()\n constructor(message: String?)\n
```

```
constructor(message: String?, cause: Throwable?)\n constructor(cause: Throwable?)\n}\n\npublic expect open
```

```
class NumberFormatException : IllegalArgumentException {\n constructor()\n constructor(message:
```

```
String?)\n}\n\npublic expect open class NullPointerException : RuntimeException {\n constructor()\n
```

```
constructor(message: String?)\n}\n\npublic expect open class ClassCastException : RuntimeException {\n
```

```
constructor()\n constructor(message: String?)\n}\n\npublic
```

```

expect open class AssertionError : Error {
    constructor()
    constructor(message: Any?)
}

public expect open class NoSuchElementException : RuntimeException {
    constructor()
    constructor(message: String?)
}

@SinceKotlin("1.3")
public expect open class ArithmeticException : RuntimeException {
    constructor()
    constructor(message: String?)
}

@Deprecated("This exception type is not supposed to be thrown or caught in common code and will be removed from kotlin-stdlib-common soon.", level = DeprecationLevel.ERROR)
public expect open class NoWhenBranchMatchedException : RuntimeException {
    constructor()
    constructor(message: String?)
    constructor(message: String?, cause: Throwable?)
    constructor(cause: Throwable?)
}

@Deprecated("This exception type is not supposed to be thrown or caught in common code and will be removed from kotlin-stdlib-common soon.", level = DeprecationLevel.ERROR)
public expect class UninitializedPropertyAccessException : RuntimeException {
    constructor()
    constructor(message: String?)
    constructor(message: String?, cause: Throwable?)
    constructor(cause: Throwable?)
}

/**
 * Thrown after invocation of a function or property that was expected to return `Nothing`, but returned something instead.
 */
@SinceKotlin("1.4")
@PublishedApi
internal class KotlinNothingValueException : RuntimeException {
    constructor() : super()
    constructor(message: String?) : super(message)
    constructor(message: String?, cause: Throwable?) : super(message, cause)
    constructor(cause: Throwable?) : super(cause)
}

/**
 * Returns the detailed description of this throwable with its stack trace.
 *
 * The detailed description includes:
 *
 * - the short description (see [Throwable.toString]) of this throwable;
 *
 * - the complete stack trace;
 *
 * - detailed descriptions of the exceptions that were [suppressed][suppressedExceptions] in order to deliver this exception;
 *
 * - the detailed description of each throwable in the [Throwable.cause] chain.
 */
@SinceKotlin("1.4")
public expect fun Throwable.stackTraceToString(): String

/**
 * Prints the [detailed description][Throwable.stackTraceToString] of this throwable to the standard output or standard error output.
 */
@SinceKotlin("1.4")
@Suppress("EXTENSION_SHADOWED_BY_MEMBER")
public expect fun Throwable.printStackTrace(): Unit

/**
 * When supported by the platform, adds the specified exception to the list of exceptions that were
 * suppressed in order to deliver this exception.
 */
@SinceKotlin("1.4")
@Suppress("EXTENSION_SHADOWED_BY_MEMBER")
public expect fun Throwable.addSuppressed(exception: Throwable)

/**
 * Returns a list of all exceptions that were suppressed in order to deliver this exception.
 *
 * The list can be empty:
 *
 * - if no exceptions were suppressed;
 *
 * - if the platform doesn't support suppressed exceptions;
 *
 * - if this [Throwable] instance has disabled the suppression.
 */
@SinceKotlin("1.4")
public expect val Throwable.suppressedExceptions: List<Throwable>

/*
 * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.
 * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.
 */
package kotlin.js
import kotlin.annotation.AnnotationTarget

/**
 * Gives a declaration (a function, a property or a class) specific name in JavaScript.
 *
 * @Target(CLASS, FUNCTION, PROPERTY, CONSTRUCTOR, PROPERTY_GETTER, PROPERTY_SETTER)
 * @OptionalExpectation
 */
public expect annotation class JsName(val name: String)

/**
 * Marks experimental JS export annotations.
 *
 * Note that behavior of these annotations will likely be changed in the future.
 *
 * Usages of such annotations will be reported as warnings unless an explicit opt-in with
 * the [OptIn] annotation, e.g.
 *
 * @OptIn(ExperimentalJsExport::class),
 * or with the -opt-in=kotlin.js.ExperimentalJsExport
 * compiler option is given.
 */
@RequiresOptIn(level = RequiresOptIn.Level.WARNING)
@MustBeDocumented
@Retention(AnnotationRetention.BINARY)
@SinceKotlin("1.4")
public annotation class ExperimentalJsExport

/**
 * Exports top-level declaration on JS platform.
 *
 * Compiled module exposes declarations that are marked with this annotation without name mangling.
 *
 * This annotation can be applied to either files or top-level declarations.
 *
 * It is currently prohibited to export the following kinds of declarations:
 *
 * * `expect` declarations
 *
 * * inline functions with reified type parameters
 *
 * * suspend functions
 *
 * * secondary constructors without `@JsName`
 *
 * * extension properties
 *
 * * enum classes
 *
 * * annotation classes
 *
 * Signatures of exported declarations must only contain "exportable" types:
 *
 * * `dynamic`, `Any`, `String`, `Boolean`, `Byte`, `Short`, `Int`, `Float`,

```

```

`Double`\n * * `BooleanArray`,
`ByteArray`, `ShortArray`, `IntArray`, `FloatArray`, `DoubleArray`\n * * `Array<exportable-type>`\n * *
Function types with exportable parameters and return types\n * * `external` or `@JsExport` classes and interfaces\n
* * Nullable counterparts of types above\n * * Unit return type. Must not be nullable\n *\n * This annotation is
experimental, meaning that restrictions mentioned above are subject to change.\n
*/\n\n@ExperimentalJsExport\n@Retention(AnnotationRetention.BINARY)\n@Target(CLASS, PROPERTY,
FUNCTION, FILE)\n@SinceKotlin("1.4")\n@OptionalExpectation\npublic expect annotation class
JsExport()"/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use
of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\npackage kotlin.io\n\n/** Prints the line separator to the standard output stream. */\n\npublic expect fun
println()\n\n/** Prints the given [message]
and the line separator to the standard output stream. */\n\npublic expect fun println(message: Any?)\n\n/** Prints the
given [message] to the standard output stream. */\n\npublic expect fun print(message: Any?)\n\n/**\n * Reads a line
of input from the standard input stream and returns it,\n * or throws a [RuntimeException] if EOF has already been
reached when [readln] is called.\n *\n * LF or CRLF is treated as the line terminator. Line terminator is not included
in the returned string.\n *\n * Currently this function is not supported in Kotlin/JS and throws
[UnsupportedOperationException].\n */\n\n@SinceKotlin("1.6")\n\npublic expect fun readln(): String\n\n/**\n * Reads a line of input from the standard input stream and returns it,\n * or return `null` if EOF has already been
reached when [readlnOrNull] is called.\n *\n * LF or CRLF is treated as the line terminator. Line terminator is not
included in the returned string.\n *\n * Currently this function is not supported in Kotlin/JS and throws
[UnsupportedOperationException].\n */\n\n@SinceKotlin("1.6")\n\npublic expect fun readlnOrNull():
String?\n\ninternal class ReadAfterEOFException(message: String?) : RuntimeException(message)\n\n\ninternal
expect interface Serializable\n"/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\nimport kotlin.internal.PlatformDependent\n\n/**\n * Classes that inherit from this interface can be represented as a sequence of elements that can\n * be iterated over.\n *
@param T the type of element being iterated over. The iterator is covariant in its element type.\n */\n\npublic interface
Iterable<out T> {\n    /**\n     * Returns an iterator over the elements of this object.\n     */\n    public operator fun
iterator(): Iterator<T>\n}\n\n/**\n * Classes that inherit from this interface can be represented
as a sequence of elements that can\n * be iterated over and that supports removing elements during iteration.\n *
@param T the type of element being iterated over. The mutable iterator is invariant in its element type.\n */\n\npublic
interface MutableIterable<out T> : Iterable<T> {\n    /**\n     * Returns an iterator over the elements of this
sequence that supports removing elements during iteration.\n     */\n    override fun iterator():
MutableIterator<T>\n}\n\n/**\n * A generic collection of elements. Methods in this interface support only read-only
access to the collection;\n * read/write access is supported through the [MutableCollection] interface.\n * @param E
the type of elements contained in the collection. The collection is covariant in its element type.\n */\n\npublic interface
Collection<out E> : Iterable<E> {\n    // Query Operations\n    /**\n     * Returns the size of the collection.\n     */\n    public val size: Int\n\n    /**\n     * Returns `true` if the collection is
empty (contains no elements), `false` otherwise.\n     */\n    public fun isEmpty(): Boolean\n\n    /**\n     * Checks if
the specified element is contained in this collection.\n     */\n    public operator fun contains(element:
@UnsafeVariance E): Boolean\n\n    override fun iterator(): Iterator<E>\n\n    // Bulk Operations\n    /**\n     *
Checks if all elements in the specified collection are contained in this collection.\n     */\n    public fun
containsAll(elements: Collection<@UnsafeVariance E>): Boolean\n}\n\n\n/**\n * A generic collection of elements
that supports adding and removing elements.\n *\n * @param E the type of elements contained in the collection. The
mutable collection is invariant in its element type.\n */\n\npublic interface MutableCollection<E> : Collection<E>,
MutableIterable<E> {\n    // Query Operations\n    override fun iterator(): MutableIterator<E>\n\n    // Modification
Operations\n    /**\n     * Adds the specified element to the collection.\n     */\n

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* @return `true` if the element has been added, `false` if the collection does not support duplicates\n
* and the element is already contained in the collection.\n
*/\n
public fun add(element: E): Boolean\n
/**\n
 * Removes a single instance of the specified element from this\n
 * collection, if it is present.\n
 */\n
* @return\n
`true` if the element has been successfully removed; `false` if it was not present in the collection.\n
*/\n
public fun remove(element: E): Boolean\n
// Bulk Modification Operations\n
/**\n
 * Adds all of the elements of\n
 the specified collection to this collection.\n
 */\n
* @return `true` if any of the specified elements was added to\n
the collection, `false` if the collection was not modified.\n
*/\n
public fun addAll(elements: Collection<E>):\n
Boolean\n
/**\n
 * Removes all of this collection's elements that are also contained in the specified\n
 collection.\n
 */\n
* @return `true` if any of\n
the specified elements was removed from the collection, `false` if the collection was not modified.\n
*/\n
public fun removeAll(elements: Collection<E>): Boolean\n
/**\n
 * Retains only the elements in this collection that\n
 are contained in the specified collection.\n
 */\n
* @return `true` if any element was removed from the\n
collection, `false` if the collection was not modified.\n
*/\n
public fun retainAll(elements: Collection<E>):\n
Boolean\n
/**\n
 * Removes all elements from this collection.\n
 */\n
public fun clear(): Unit\n
}\n
/**\n
 * A generic ordered collection of elements. Methods in this interface support only read-only access to the list;\n
 * read/write access is supported through the [MutableList] interface.\n
 */\n
* @param E the type of elements contained in\n
the list. The list is covariant in its element type.\n
*/\n
public interface List<out E> : Collection<E> {\n
// Query\n
Operations\n
override val size: Int\n
override fun isEmpty():\n
Boolean\n
override fun contains(element: @UnsafeVariance E): Boolean\n
override fun iterator():\n
Iterator<E>\n
// Bulk Operations\n
override fun containsAll(elements: Collection<@UnsafeVariance E>):\n
Boolean\n
// Positional Access Operations\n
/**\n
 * Returns the element at the specified index in the list.\n
 */\n
* @return\n
E\n
// Search Operations\n
/**\n
 * Returns the index of the first\n
 occurrence of the specified element in the list, or -1 if the specified\n
 * element is not contained in the list.\n
 */\n
* @return\n
Int\n
/**\n
 * Returns the index of the last\n
 occurrence of the specified element in the list, or -1 if the specified\n
 * element is not contained in the list.\n
 */\n
* @return\n
Int\n
// List Iterators\n
/**\n
 * Returns a list\n
 iterator over the elements in this list (in proper sequence).\n
 */\n
* @return\n
ListIterator<E>\n
/**\n
 * Returns a list iterator over the elements in this list\n
 (in proper sequence), starting at the specified [index].\n
 */\n
* @return\n
ListIterator<E>\n
// View\n
/**\n
 * Returns a view of the portion of this list between the specified\n
 [fromIndex] (inclusive) and [toIndex] (exclusive).\n
 * The returned list is backed by this list, so non-structural\n
 changes in the returned list are reflected in this list, and vice-versa.\n
 * Structural changes in the base list\n
 make the behavior of the view undefined.\n
 */\n
* @return\n
List<E>\n
}\n
/**\n
 * A generic ordered collection of elements that supports adding and removing elements.\n
 */\n
* @param E the type of elements contained in the list. The mutable list is invariant in its element type.\n
*/\n
public interface MutableList<E> : List<E>, MutableCollection<E> {\n
// Modification Operations\n
/**\n
 * Adds the specified element to the end of this list.\n
 */\n
* @return\n
`true` because the list is always modified as the result of this operation.\n
*/\n
override fun add(element: E):\n
Boolean\n
override fun remove(element: E): Boolean\n
// Bulk Modification Operations\n
/**\n
 * Adds\n
 all of the elements of the specified collection to the end of this list.\n
 * The elements are appended in the\n
 order they appear in the [elements] collection.\n
 */\n
* @return `true` if the list was changed as the result of the\n
operation.\n
*/\n
override fun addAll(elements: Collection<E>): Boolean\n
/**\n
 * Inserts all of the\n
 elements of the specified collection [elements] into this list at the specified [index].\n
 */\n
* @return `true` if the\n
list was changed as the result of the operation.\n
*/\n
public fun addAll(index: Int, elements: Collection<E>):\n
Boolean\n
override fun removeAll(elements:\n
Collection<E>): Boolean\n
override fun retainAll(elements: Collection<E>): Boolean\n
override fun clear():\n
Unit\n
// Positional Access Operations\n
/**\n
 * Replaces the element at the specified position in this list\n
 with the specified element.\n
 */\n
* @return the element previously at the specified position.\n
*/\n
public fun

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operator fun set(index: Int, element: E): E\n\n /**\n * Inserts an element into the list at the specified [index].\n *\n public fun add(index: Int, element: E): Unit\n\n /**\n * Removes an element at the specified [index] from\n the list.\n *\n * @return the element that has been removed.\n *\n public fun removeAt(index: Int): E\n\n // List Iterators\n override fun listIterator(): MutableListIterator<E>\n\n override fun listIterator(index: Int):\n MutableListIterator<E>\n\n // View\n override fun subList(fromIndex: Int, toIndex: Int):\n MutableList<E>\n}\n\n/**\n * A generic\n unordered collection of elements that does not support duplicate elements.\n * Methods in this interface support\n only read-only access to the set;\n * read/write access is supported through the [MutableSet] interface.\n * @param\n E the type of elements contained in the set. The set is covariant in its element type.\n *\n public interface Set<out E>\n : Collection<E> {\n // Query Operations\n\n override val size: Int\n\n override fun isEmpty(): Boolean\n\n override fun contains(element: @UnsafeVariance E): Boolean\n\n override fun iterator(): Iterator<E>\n\n // Bulk\n Operations\n\n override fun containsAll(elements: Collection<@UnsafeVariance E>): Boolean\n}\n\n/**\n * A\n generic unordered collection of elements that does not support duplicate elements, and supports\n * adding and\n removing elements.\n * @param E the type of elements contained in the set. The mutable set is invariant in its\n element type.\n *\n public interface MutableSet<E> : Set<E>, MutableCollection<E> {\n\n // Query Operations\n\n override fun iterator(): MutableIterator<E>\n\n // Modification Operations\n\n /**\n * Adds the specified element to the set.\n *\n * @return `true` if the element has been added, `false` if the\n element is already contained in the set.\n *\n override fun add(element: E): Boolean\n\n override fun\n remove(element: E): Boolean\n\n // Bulk Modification Operations\n\n override fun addAll(elements:\n Collection<E>): Boolean\n\n override fun removeAll(elements: Collection<E>): Boolean\n\n override fun\n retainAll(elements: Collection<E>): Boolean\n\n override fun clear(): Unit\n}\n\n/**\n * A collection that holds\n pairs of objects (keys and values) and supports efficiently retrieving\n * the value corresponding to each key. Map\n keys are unique; the map holds only one value for each key.\n * Methods in this interface support only read-only\n access to the map; read-write access is supported through\n * the [MutableMap] interface.\n * @param\n K the type of map keys. The map is invariant in its key type, as it\n * can accept key as a parameter (of\n [containsKey] for example) and return it in [keys] set.\n * @param V the type of map values. The map is covariant\n in its value type.\n *\n public interface Map<K, out V> {\n // Query Operations\n /**\n * Returns the number\n of key/value pairs in the map.\n *\n public val size: Int\n\n /**\n * Returns `true` if the map is empty\n (contains no elements), `false` otherwise.\n *\n public fun isEmpty(): Boolean\n\n /**\n * Returns `true` if\n the map contains the specified [key].\n *\n public fun containsKey(key: K): Boolean\n\n /**\n * Returns\n `true` if the map maps one or more keys to the specified [value].\n *\n public fun containsValue(value:\n @UnsafeVariance V): Boolean\n\n /**\n * Returns the value corresponding to the given [key], or `null` if such\n a key is not present in the map.\n *\n public operator\n fun get(key: K): V?\n\n /**\n * Returns the value corresponding to the given [key], or [defaultValue] if such a\n key is not present in the map.\n *\n *\n * @since JDK 1.8\n *\n @SinceKotlin("1.1")\n\n @PlatformDependent\n\n public fun getOrDefault(key: K, defaultValue: @UnsafeVariance V): V {\n // See\n default implementation in JDK sources\n\n throw NotImplementedError()\n }\n\n // Views\n /**\n * Returns a read-only [Set] of all keys in this map.\n *\n public val keys: Set<K>\n\n /**\n * Returns a read-\n only [Collection] of all values in this map. Note that this collection may contain duplicate values.\n *\n public\n val values: Collection<V>\n\n /**\n * Returns a read-only [Set] of all key/value pairs in this map.\n *\n public\n val entries: Set<Map.Entry<K, V>>\n\n /**\n * Represents a key/value pair held by a [Map].\n *\n public\n interface Entry<out K, out V> {\n /**\n * Returns the key of this key/value pair.\n *\n public val key: K\n\n /**\n * Returns the value of\n this key/value pair.\n *\n public val value: V\n }\n}\n\n/**\n * A modifiable collection that holds pairs\n of objects (keys and values) and supports efficiently retrieving\n * the value corresponding to each key. Map\n keys are unique; the map holds only one value for each key.\n * @param K the type of map keys. The map is invariant in\n its key type.\n * @param V the type of map values. The mutable map is invariant in its value type.\n *\n public\n interface MutableMap<K, V> : Map<K, V> {\n // Modification Operations\n /**\n * Associates the specified

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[value] with the specified [key] in the map.\n * \n * @return the previous value associated with the key, or
`null` if the key was not present in the map.\n * \n public fun put(key: K, value: V): V?\n\n /** \n *
Removes the specified key and its corresponding value from
this map.\n * \n * @return the previous value associated with the key, or `null` if the key was not present in the
map.\n * \n public fun remove(key: K): V?\n\n /** \n * Removes the entry for the specified key only if it is
mapped to the specified value.\n * \n * @return true if entry was removed\n * \n @SinceKotlin("1.1")\n
@PlatformDependent\n public fun remove(key: K, value: V): Boolean {\n // See default implementation in
JDK sources\n return true\n }\n\n // Bulk Modification Operations\n /** \n * Updates this map with
key/value pairs from the specified map [from].\n * \n public fun putAll(from: Map<out K, V>): Unit\n\n /** \n
* Removes all elements from this map.\n * \n public fun clear(): Unit\n\n // Views\n /** \n * Returns a
[MutableSet] of all keys in this map.\n * \n override val keys: MutableSet<K>\n\n /** \n * Returns a
[MutableCollection] of all values in this map.

Note that this collection may contain duplicate values.\n * \n override val values: MutableCollection<V>\n\n
/** \n * Returns a [MutableSet] of all key/value pairs in this map.\n * \n override val entries:
MutableSet<MutableMap.MutableEntry<K, V>>\n\n /** \n * Represents a key/value pair held by a
[MutableMap].\n * \n public interface MutableEntry<K, V> : Map.Entry<K, V> {\n /** \n * Changes
the value associated with the key of this entry.\n * \n * @return the previous value corresponding to the
key.\n * \n public fun setValue(newValue: V): V\n }\n\n", "\n * Copyright 2010-2022 JetBrains s.r.o.
and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license
that can be found in the license/LICENSE.txt file.\n * \n\n// Auto-generated file. DO NOT EDIT!\n\npackage
kotlin.collections\n\n/** An iterator over a sequence of values of type `Byte`. */\npublic abstract
class ByteIterator : Iterator<Byte> {\n override final fun next() = nextByte()\n\n /** Returns the next value in
the sequence without boxing. */\n public abstract fun nextByte(): Byte\n}\n\n/** An iterator over a sequence of
values of type `Char`. */\npublic abstract class CharIterator : Iterator<Char> {\n override final fun next() =
nextChar()\n\n /** Returns the next value in the sequence without boxing. */\n public abstract fun nextChar():
Char\n}\n\n/** An iterator over a sequence of values of type `Short`. */\npublic abstract class ShortIterator :
Iterator<Short> {\n override final fun next() = nextShort()\n\n /** Returns the next value in the sequence without
boxing. */\n public abstract fun nextShort(): Short\n}\n\n/** An iterator over a sequence of values of type `Int`.
*/\npublic abstract class IntIterator : Iterator<Int> {\n override final fun next() = nextInt()\n\n /** Returns the
next value in the sequence without boxing. */\n public
abstract fun nextInt(): Int\n}\n\n/** An iterator over a sequence of values of type `Long`. */\npublic abstract class
LongIterator : Iterator<Long> {\n override final fun next() = nextLong()\n\n /** Returns the next value in the
sequence without boxing. */\n public abstract fun nextLong(): Long\n}\n\n/** An iterator over a sequence of
values of type `Float`. */\npublic abstract class FloatIterator : Iterator<Float> {\n override final fun next() =
nextFloat()\n\n /** Returns the next value in the sequence without boxing. */\n public abstract fun nextFloat():
Float\n}\n\n/** An iterator over a sequence of values of type `Double`. */\npublic abstract class DoubleIterator :
Iterator<Double> {\n override final fun next() = nextDouble()\n\n /** Returns the next value in the sequence
without boxing. */\n public abstract fun nextDouble(): Double\n}\n\n/** An iterator over a sequence of values of
type `Boolean`. */\npublic abstract class BooleanIterator : Iterator<Boolean>
{\n override final fun next() = nextBoolean()\n\n /** Returns the next value in the sequence without boxing. */\n
public abstract fun nextBoolean(): Boolean\n}\n\n", "\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n * \n\n// Auto-generated file. DO NOT EDIT!\n\npackage
kotlin.ranges\n\n/** An iterator over a progression of values of type `Char`. */\n * @property step the number by
which the value is incremented on each step.\n * \ninternal class CharProgressionIterator(first: Char, last: Char, val
step: Int) : CharIterator() {\n private val finalElement: Int = last.code\n private var hasNext: Boolean = if (step >
0) first <= last else first >= last\n private var next: Int = if (hasNext) first.code else finalElement\n\n override fun
hasNext(): Boolean = hasNext\n\n override fun nextChar(): Char {\n

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        val value = next\n        if (value == finalElement) {\n            if (!hasNext) throw
kotlin.NoSuchElementException()\n            hasNext = false\n        }\n        else {\n            next += step\n        }\n    return value.toChar()\n    }\n}\n\n/**\n * An iterator over a progression of values of type `Int`.\n * @property step
the number by which the value is incremented on each step.\n */\ninternal class IntProgressionIterator(first: Int, last:
Int, val step: Int) : IntIterator() {\n    private val finalElement: Int = last\n    private var hasNext: Boolean = if (step >
0) first <= last else first >= last\n    private var next: Int = if (hasNext) first else finalElement\n\n    override fun
hasNext(): Boolean = hasNext\n\n    override fun nextInt(): Int {\n        val value = next\n        if (value ==
finalElement) {\n            if (!hasNext) throw kotlin.NoSuchElementException()\n            hasNext = false\n        }\n        else {\n            next += step\n        }\n    }\n    return value\n}\n}\n\n/**\n * An iterator over a progression of values of type `Long`.\n * @property
step the number by which the value is incremented on each step.\n */\ninternal class LongProgressionIterator(first:
Long, last: Long, val step: Long) : LongIterator() {\n    private val finalElement: Long = last\n    private var
hasNext: Boolean = if (step > 0) first <= last else first >= last\n    private var next: Long = if (hasNext) first else
finalElement\n\n    override fun hasNext(): Boolean = hasNext\n\n    override fun nextLong(): Long {\n        val
value = next\n        if (value == finalElement) {\n            if (!hasNext) throw kotlin.NoSuchElementException()\n           
hasNext = false\n        }\n        else {\n            next += step\n        }\n    }\n    return value\n}\n}\n\n","/*\n *
Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is
governed by the Apache 2.0 license that can be found
in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin.ranges\n\nimport
kotlin.internal.getProgressionLastElement\n\n/**\n * A progression of values of type `Char`.\n */\npublic open class
CharProgression\n    internal constructor\n        (\n            start: Char,\n            endInclusive: Char,\n            step: Int\n        ) : Iterable<Char> {\n    init {\n        if (step == 0) throw kotlin.IllegalArgumentException("\u0027Step must be non-
zero.\u0027")\n        if (step == Int.MIN_VALUE) throw kotlin.IllegalArgumentException("\u0027Step must be greater than
Int.MIN_VALUE to avoid overflow on negation.\u0027")\n    }\n\n    /**\n     * The first element in the progression.\n     */\n    public val first: Char = start\n\n    /**\n     * The last element in the progression.\n     */\n    public val last:
Char = getProgressionLastElement(start.code, endInclusive.code, step).toChar()\n\n    /**\n     * The step of the
progression.\n     */\n    public val step: Int
= step\n\n    override fun iterator(): CharIterator = CharProgressionIterator(first, last, step)\n\n    /**\n     * Checks if
the progression is empty.\n     */\n    * Progression with a positive step is empty if its first element is greater than the
last element.\n     * Progression with a negative step is empty if its first element is less than the last element.\n     */\n    public open fun isEmpty(): Boolean = if (step > 0) first > last else first < last\n\n    override fun equals(other:
Any?): Boolean =\n        other is CharProgression && (isEmpty() && other.isEmpty()) ||\n        first == other.first
&& last == other.last && step == other.step\n\n    override fun hashCode(): Int =\n        if (isEmpty()) -1 else (31 *
(31 * first.code + last.code) + step)\n\n    override fun toString(): String = if (step > 0) \"\$first..\$last step \$step\" else
\"\$first downTo \$last step \${-step}\"\n\n    companion object {\n        /**\n         * Creates CharProgression within
the specified bounds
of a closed range.\n         */\n        * The progression starts with the [rangeStart] value and goes toward the
[rangeEnd] value not excluding it, with the specified [step].\n         * In order to go backwards the [step] must be
negative.\n         */\n        * [step] must be greater than `Int.MIN_VALUE` and not equal to zero.\n         */\n        public fun fromClosedRange(rangeStart: Char, rangeEnd: Char, step: Int): CharProgression =
CharProgression(rangeStart, rangeEnd, step)\n    }\n}\n\n/**\n * A progression of values of type `Int`.\n */\npublic
open class IntProgression\n    internal constructor\n        (\n            start: Int,\n            endInclusive: Int,\n            step:
Int\n        ) : Iterable<Int> {\n    init {\n        if (step == 0) throw kotlin.IllegalArgumentException("\u0027Step must be non-
zero.\u0027")\n        if (step == Int.MIN_VALUE) throw kotlin.IllegalArgumentException("\u0027Step must be greater than
Int.MIN_VALUE to avoid overflow on negation.\u0027")\n    }\n\n    /**\n     * The first element in the progression.\n     */\n    public val first: Int = start\n\n    /**\n     * The last element in
the progression.\n     */\n    public val last: Int = getProgressionLastElement(start, endInclusive, step)\n\n    /**\n     *
The step of the progression.\n     */\n    public val step: Int = step\n\n    override fun iterator(): IntIterator =

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IntProgressionIterator(first, last, step)\n\n /**\n * Checks if the progression is empty.\n *\n * Progression
with a positive step is empty if its first element is greater than the last element.\n * Progression with a negative
step is empty if its first element is less than the last element.\n *\n public open fun isEmpty(): Boolean = if
(step > 0) first > last else first < last\n\n override fun equals(other: Any?): Boolean =\n other is IntProgression
&& (isEmpty() && other.isEmpty()) ||\n first == other.first && last == other.last && step == other.step)\n\n
override fun hashCode():
Int =\n if (isEmpty()) -1 else (31 * (31 * first + last) + step)\n\n override fun toString(): String = if (step > 0)
\"$first..$last step $step\" else \"$first downTo $last step ${-step}\"
\n\n companion object {\n /**\n *
Creates IntProgression within the specified bounds of a closed range.\n *\n * The progression starts with
the [rangeStart] value and goes toward the [rangeEnd] value not excluding it, with the specified [step].\n *\n In
order to go backwards the [step] must be negative.\n *\n * [step] must be greater than `Int.MIN_VALUE`
and not equal to zero.\n *\n public fun fromClosedRange(rangeStart: Int, rangeEnd: Int, step: Int):
IntProgression = IntProgression(rangeStart, rangeEnd, step)\n }
}\n\n/**\n * A progression of values of type
`Long`.\n *\n public open class LongProgression\n internal constructor\n (\n start: Long,\n
endInclusive: Long,\n
step: Long\n ): Iterable<Long> {\n init {\n if (step == 0L) throw kotlin.IllegalArgumentException("Step
must be non-zero.")\n if (step == Long.MIN_VALUE) throw kotlin.IllegalArgumentException("Step must be
greater than Long.MIN_VALUE to avoid overflow on negation.")\n }\n\n /**\n * The first element in the
progression.\n *\n public val first: Long = start\n\n /**\n * The last element in the progression.\n *\n
public val last: Long = getProgressionLastElement(start, endInclusive, step)\n\n /**\n * The step of the
progression.\n *\n public val step: Long = step\n\n override fun iterator(): LongIterator =
LongProgressionIterator(first, last, step)\n\n /**\n * Checks if the progression is empty.\n *\n *
Progression with a positive step is empty if its first element is greater than the last element.\n * Progression with a
negative step is empty if its first element is less than the last element.\n
\n *\n public open fun isEmpty(): Boolean = if (step > 0) first > last else first < last\n\n override fun
equals(other: Any?): Boolean =\n other is LongProgression && (isEmpty() && other.isEmpty()) ||\n first ==
other.first && last == other.last && step == other.step)\n\n override fun hashCode(): Int =\n if (isEmpty()) -1
else (31 * (31 * (first xor (first ushr 32)) + (last xor (last ushr 32))) + (step xor (step ushr 32))).toInt()\n\n
override fun toString(): String = if (step > 0) \"$first..$last step $step\" else \"$first downTo $last step ${-step}\"
\n\n companion object {\n /**\n * Creates LongProgression within the specified bounds of a closed range.\n
*\n * The progression starts with the [rangeStart] value and goes toward the [rangeEnd] value not excluding it,
with the specified [step].\n *\n In order to go backwards the [step] must be negative.\n *\n * [step] must
be greater than `Long.MIN_VALUE`
and not equal to zero.\n *\n public fun fromClosedRange(rangeStart: Long, rangeEnd: Long, step: Long):
LongProgression = LongProgression(rangeStart, rangeEnd, step)\n }
}\n\n"/\n\n * Copyright 2010-2019
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n *\n package kotlin.ranges\n\n/**\n *
Represents a range of values (for example, numbers or characters).\n * See the [Kotlin language
documentation](https://kotlinlang.org/docs/reference/ranges.html) for more information.\n *\n public interface
ClosedRange<T: Comparable<T>> {\n /**\n * The minimum value in the range.\n *\n public val start:
T\n\n /**\n * The maximum value in the range (inclusive).\n *\n public val endInclusive: T\n\n /**\n *
Checks whether the specified [value] belongs to the range.\n *\n public operator fun contains(value:
T): Boolean = value >= start && value <= endInclusive\n\n /**\n * Checks whether the range is empty.\n *\n
* The range is empty if its start value is greater than the end value.\n *\n public fun isEmpty(): Boolean =
start > endInclusive\n }
}\n\n"/\n\n * Copyright 2010-2015 JetBrains s.r.o.\n *\n * Licensed under the Apache License,
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unsafe operations such as casts or 'is' checks\n \* That means it's completely safe to use generic types as argument for such parameter.\n

```
*\n@Target(AnnotationTarget.TYPE_PARAMETER)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class PureReifiable\n\n/**\n * Specifies that the corresponding built-in method exists depending on platform.\n * Current implementation for JVM looks whether method with same JVM descriptor exists in the module JDK.\n * For example MutableMap.remove(K, V) available only if corresponding\n * method 'java/util/Map.remove(Ljava/lang/Object;Ljava/lang/Object;)Z'
```

is defined in JDK (i.e. for major versions >= 8)\n

```
*\n@Target(AnnotationTarget.FUNCTION)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class PlatformDependent\n\n"/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\npackage kotlin.internal\n\n// a mod b (in arithmetical sense)\nprivate fun mod(a: Int, b: Int): Int {\n    val mod = a % b\n    return if (mod >= 0) mod else mod + b\n}\n\nprivate fun mod(a: Long, b: Long): Long {\n    val mod = a % b\n    return if (mod >= 0) mod else mod + b\n}\n\n// (a - b) mod c\nprivate fun differenceModulo(a: Int, b: Int, c: Int): Int {\n    return mod(mod(a, c) - mod(b, c), c)\n}\n\nprivate fun differenceModulo(a: Long, b: Long, c: Long): Long {\n    return mod(mod(a, c) - mod(b, c), c)\n}\n\n/**\n * Calculates the final element of a bounded
```

arithmetic progression, i.e. the last element of the progression which is in the range\n \* from [start] to [end] in case of a positive [step], or from [end] to [start] in case of a negative\n \* [step].\n \* No validation on passed parameters is performed. The given parameters should satisfy the condition:\n \* - either `step > 0` and `start <= end`,\n \* - or `step < 0` and `start >= end`.\n \* @param start first element of the progression\n \* @param end ending bound for the progression\n \* @param step increment, or difference of successive elements in the progression\n \* @return the final element of the progression\n \* @suppress\n \*/\n@PublishedApi\ninternal fun getProgressionLastElement(start: Int, end: Int, step: Int): Int = when {\n step > 0 -> if (start >= end) end else end - differenceModulo(end, start, step)\n step < 0 -> if (start <= end) end else end + differenceModulo(start, end, -step)\n else -> throw kotlin.IllegalArgumentException("Step is zero.")\n}\n

\* Calculates the final element of a bounded arithmetic progression, i.e. the last element of the progression which is in the range\n \* from [start] to [end] in case of a positive [step], or from [end] to [start] in case of a negative\n \* [step].\n \* No validation on passed parameters is performed. The given parameters should satisfy the condition:\n \* - either `step > 0` and `start <= end`,\n \* - or `step < 0` and `start >= end`.\n \* @param start first element of the progression\n \* @param end ending bound for the progression\n \* @param step increment, or difference of successive elements in the progression\n \* @return the final element of the progression\n \*

```
@suppress\n */\n@PublishedApi\ninternal fun getProgressionLastElement(start: Long, end: Long, step: Long): Long = when {\n    step > 0 -> if (start >= end) end else end - differenceModulo(end, start, step)\n    step < 0 -> if (start <= end) end else end + differenceModulo(start, end, -step)\n    else -> throw
```

```
kotlin.IllegalArgumentException("Step is zero.")\n}\n\n"/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@JsName("arrayIterator")\ninternal fun arrayIterator(array: dynamic, type: String?) = when (type) {\n    null -> {\n        val arr: Array<dynamic> = array\n        object :
```

```
Iterator<dynamic> {\n            var index = 0\n            override fun hasNext() = index < arr.size\n            override fun next() = if (index < arr.size) arr[index++] else throw NoSuchElementException("$index")\n        }\n    }\n    "BooleanArray" -> booleanArrayIterator(array)\n    "ByteArray" -> byteArrayIterator(array)\n    "ShortArray" -> shortArrayIterator(array)\n    "CharArray" -> charArrayIterator(array)\n    "IntArray" -> intArrayIterator(array)\n    "LongArray" -> longArrayIterator(array)\n    "FloatArray" -> floatArrayIterator(array)\n}
```

```
\n    "DoubleArray" -> doubleArrayIterator(array)\n    else -> throw IllegalStateException("Unsupported type argument for arrayIterator: $type")\n}\n\n@JsName("booleanArrayIterator")\ninternal fun booleanArrayIterator(array: BooleanArray) = object : BooleanIterator() {\n    var index = 0\n    override fun
```

```

hasNext() = index < array.size\n  override fun nextBoolean() = if (index < array.size) array[index++] else throw
NoSuchElementException("$index")\n}\n\n@JsName("byteArrayIterator")\ninternal fun byteArrayIterator(array:
ByteArray) = object : ByteIterator() {\n  var index = 0\n  override fun hasNext() = index < array.size\n  override
fun nextByte() = if (index < array.size) array[index++] else throw
NoSuchElementException("$index")\n}\n\n@JsName("shortArrayIterator")\ninternal fun
shortArrayIterator(array: ShortArray) = object : ShortIterator() {\n  var index = 0\n  override fun hasNext() =
index < array.size\n  override fun nextShort()
= if (index < array.size) array[index++] else throw
NoSuchElementException("$index")\n}\n\n@JsName("charArrayIterator")\ninternal fun charArrayIterator(array:
CharArray) = object : CharIterator() {\n  var index = 0\n  override fun hasNext() = index < array.size\n  override
fun nextChar() = if (index < array.size) array[index++] else throw
NoSuchElementException("$index")\n}\n\n@JsName("intArrayIterator")\ninternal fun intArrayIterator(array:
IntArray) = object : IntIterator() {\n  var index = 0\n  override fun hasNext() = index < array.size\n  override fun
nextInt() = if (index < array.size) array[index++] else throw
NoSuchElementException("$index")\n}\n\n@JsName("floatArrayIterator")\ninternal fun
floatArrayIterator(array: FloatArray) = object : FloatIterator() {\n  var index = 0\n  override fun hasNext() = index
< array.size\n  override fun nextFloat() = if (index < array.size) array[index++] else throw
NoSuchElementException("$index")\n}\n\n@JsName("doubleArrayIterator")\ninternal
fun doubleArrayIterator(array: DoubleArray) = object : DoubleIterator() {\n  var index = 0\n  override fun
hasNext() = index < array.size\n  override fun nextDouble() = if (index < array.size) array[index++] else throw
NoSuchElementException("$index")\n}\n\n@JsName("longArrayIterator")\ninternal fun longArrayIterator(array:
LongArray) = object : LongIterator() {\n  var index = 0\n  override fun hasNext() = index < array.size\n
override fun nextLong() = if (index < array.size) array[index++] else throw
NoSuchElementException("$index")\n}\n\n@JsName("PropertyMetadata")\ninternal class
PropertyMetadata(@JsName("callableName") val name:
String)\n\n@JsName("noWhenBranchMatched")\ninternal fun noWhenBranchMatched(): Nothing = throw
NoWhenBranchMatchedException()\n\n@JsName("subSequence")\ninternal fun subSequence(c: CharSequence,
startIndex: Int, endIndex: Int): CharSequence {\n  if (c is String) {\n    return c.substring(startIndex,
endIndex)\n  } else {\n    return c.asDynamic().`subSequence_vux9f0$`(startIndex, endIndex)\n
}\n}\n\n@JsName("captureStack")\ninternal fun captureStack(@Suppress("UNUSED_PARAMETER")
baseClass: JsClass<in Throwable>, instance: Throwable) {\n  if (js("Error").captureStackTrace) {\n    // Using
uncropped stack traces due to KT-37563.\n    // Precise stack traces are implemented in JS IR compiler and
stdlib\n    js("Error").captureStackTrace(instance);\n  } else {\n    instance.asDynamic().stack = js("new
Error()").stack;\n  }\n}\n\n@JsName("newThrowable")\ninternal fun newThrowable(message: String?, cause:
Throwable?): Throwable {\n  val throwable = js("new Error()")\n  throwable.message = if (jsTypeOf(message)
== "undefined") {\n    if (cause != null) cause.toString() else null\n  } else {\n    message\n  }\n
throwable.cause = cause\n  throwable.name = "Throwable"\n  return
throwable\n}\n\n@JsName("BoxedChar")\ninternal
class BoxedChar(val c: Int) : Comparable<Int> {\n  override fun equals(other: Any?): Boolean {\n    return
other is BoxedChar && c == other.c\n  }\n\n  override fun hashCode(): Int {\n    return c\n  }\n\n  override
fun toString(): String {\n    return js("this.c").unsafeCast<Char>().toString()\n  }\n\n  override fun
compareTo(other: Int): Int {\n    return js("this.c - other").unsafeCast<Int>()\n  }\n}\n\n
@JsName("valueOf")\n  public fun valueOf(): Int {\n    return c\n
}\n}\n\n@kotlin.internal.InlineOnly\ninternal inline fun <T> concat(args: Array<T>): T {\n  val typed =
js("Array")(args.size)\n  for (i in args.indices) {\n    val arr = args[i]\n    if (arr !is Array<*>) {\n
typed[i] = js("[]").slice.call(arr)\n    } else {\n    typed[i] = arr\n    }\n  }\n  return
js("[]").concat.apply(js("[]"), typed);\n}\n\n/** Concat regular Array's and TypedArray's into an Array.\n
*/\n\n@PublishedApi\n@JsName("arrayConcat")\n@Suppress("UNUSED_PARAMETER")\ninternal

```

```

fun <T> arrayConcat(a: T, b: T): T {
    return concat(js("arguments"))
}

/** Concat primitive arrays. Main
use: prepare vararg arguments.
 * For compatibility with 1.1.0 the arguments may be a mixture of Array's and
TypedArray's.
 * If the first argument is TypedArray (Byte-, Short-, Char-, Int-, Float-, and DoubleArray)
returns a TypedArray, otherwise an Array.
 * If the first argument has the $type$ property (Boolean-, Char-, and
LongArray) copy its value to result.$type$.
 * If the first argument is a regular Array without the $type$ property
default to arrayConcat.

*/
@PublishedApi
@JsName("primitiveArrayConcat")
@Suppress("UNUSED_PARAMETER")
internal fun <T> primitiveArrayConcat(a: T, b: T): T {
    val args: Array<T> = js("arguments")
    if (a is Array<*> &&
a.asDynamic().`$type$` === undefined) {
        return concat(args)
    } else {
        var size = 0
        for (i in args.indices) {
            size += args[i].asDynamic().length as Int
        }
        val result = js("new
a.constructor(size)")
        kotlin.copyArrayType(a, result)
        size = 0
        for (i in args.indices) {
            val
arr = args[i].asDynamic()
            for (j in 0 until arr.length) {
                result[size++] = arr[j]
            }
        }
        return result
    }
}

@JsName("booleanArrayOf")
internal fun booleanArrayOf() =
withType("BooleanArray", js("[].slice.call(arguments)"))

@JsName("charArrayOf") // The arguments have
to be slice'd here because of Rhino (see KT-16974)
internal fun charArrayOf() = withType("CharArray", js("new
Uint16Array([].slice.call(arguments)"))

@JsName("longArrayOf")
internal fun longArrayOf() =
withType("LongArray",
js("[].slice.call(arguments)"))

@JsName("withType")
@kotlin.internal.InlineOnly
internal inline fun
withType(type: String, array: dynamic):
dynamic {
    array.`$type$` = type
    return array
}

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Programming Language contributors.
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found in the license/LICENSE.txt file.
 */
package kotlin.js

/** Function corresponding to JavaScript's
`typeof` operator
 */
@kotlin.internal.InlineOnly
@Suppress("UNUSED_PARAMETER")
public inline fun
jsTypeOf(a: Any?): String = js("typeof a")

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found in the license/LICENSE.txt file.
 */
@file:Suppress("UNUSED_PARAMETER",
"NOTHING_TO_INLINE")
package kotlin

/** Returns an empty array of the specified type [T].
 */
public inline fun <T> emptyArray(): Array<T> = js("[]")

public fun <T> arrayOf(vararg
elements: T): Array<T> = definedExternally

public fun doubleArrayOf(vararg elements: Double): DoubleArray = definedExternally

public fun floatArrayOf(vararg elements: Float): FloatArray = definedExternally

public fun longArrayOf(vararg
elements: Long): LongArray = definedExternally

public fun intArrayOf(vararg elements: Int):
IntArray = definedExternally

public fun charArrayOf(vararg elements: Char): CharArray =
definedExternally

public fun shortArrayOf(vararg elements: Short): ShortArray =
definedExternally

public fun byteArrayOf(vararg elements: Byte): ByteArray =
definedExternally

public fun booleanArrayOf(vararg elements: Boolean): BooleanArray =
definedExternally

/** Creates a new instance of the [Lazy] that uses the specified initialization function
[initializer].
 */
public actual fun <T> lazy(initializer: () -> T): Lazy<T> = UnsafeLazyImpl(initializer)

/** Creates a new instance of the [Lazy] that uses
the specified initialization function [initializer].
 */
public actual fun <T> lazy(mode: LazyThreadSafetyMode, initializer: () -> T): Lazy<T> =
UnsafeLazyImpl(initializer)

/** Creates
a new instance of the [Lazy] that uses the specified initialization function [initializer].
 */
public actual fun <T> lazy(lock: Any?, initializer: () -> T): Lazy<T> =
UnsafeLazyImpl(initializer)

internal fun fillFrom(src: dynamic, dst: dynamic): dynamic {
    val srcLen: Int =
src.length
    val dstLen: Int = dst.length
    var index: Int = 0
    while (index < srcLen && index < dstLen)
dst[index] = src[index++]
    return dst
}

internal fun arrayCopyResize(source: dynamic, newSize: Int,
defaultValue: Any?): dynamic {
    val result = source.slice(0, newSize)
    copyArrayType(source, result)
    var
index: Int = source.length
    if (newSize > index) {
        result.length = newSize
    }
}

```

```

    while (index < newSize) result[index++] = defaultValue\n    }\n    return result\n}\n\ninternal fun <T>
arrayPlusCollection(array: dynamic, collection: Collection<T>): dynamic {\n    val result = array.slice()\n
result.length += collection.size\n    copyArrayType(array, result)\n    var index: Int = array.length\n    for (element in
collection) result[index++] = element\n    return result\n}\n\ninternal fun <T> fillFromCollection(dst: dynamic,
startIndex: Int, collection: Collection<T>): dynamic {\n    var index = startIndex\n    for (element in collection)
dst[index++] = element\n    return dst\n}\n\ninternal inline fun copyArrayType(from: dynamic, to: dynamic) {\n    if
(from.`$type$` !== undefined) {\n        to.`$type$` = from.`$type$`\n    }\n}\n\ninternal inline fun jsIsType(obj:
dynamic, jsClass: dynamic) = js("Kotlin").isType(obj, jsClass)", /*\n * Copyright 2010-2021 JetBrains s.r.o. and
Kotlin Programming Language contributors.\n * Use of this source code is governed by
the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\n/**\n * Creates
a Char with the specified [code].\n */\n * @sample samples.text.Chars.charFromCode\n
*/\n\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic
actual inline fun Char(code: UShort): Char {\n    return code.toInt().toChar()\n}\n\n", /*\n * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines\n\nimport
kotlin.coroutines.intrinsics.COROUTINE_SUSPENDED\n\n@SinceKotlin("1.3")\n@JsName("CoroutineImpl")\n\ninternal
abstract class CoroutineImpl(private val resultContinuation: Continuation<Any?>) : Continuation<Any?>
{\n    protected var state = 0\n    protected var exceptionState = 0\n    protected var result: Any? = null\n    protected
var exception:
Throwable? = null\n    protected var finallyPath: Array<Int>? = null\n\n    public override val context:
CoroutineContext = resultContinuation.context\n\n    private var intercepted_: Continuation<Any?>? = null\n\n    public
fun intercepted(): Continuation<Any?> =\n        intercepted_\n        ?:\n    (context[ContinuationInterceptor]?.interceptContinuation(this) ?: this)\n        .also { intercepted_ = it }\n\n    override fun resumeWith(result: Result<Any?>) {\n        var current = this\n        var currentResult: Any? =
result.getOrNull()\n        var currentException: Throwable? = result.exceptionOrNull()\n        // This loop unrolls
recursion in current.resumeWith(param) to make saner and shorter stack traces on resume\n        while (true) {\n
            with(current) {\n                val completion = resultContinuation\n                // Set result and exception
fields in
the current continuation\n                if (currentException == null) {\n
                    this.result = currentResult\n                } else {\n                    state = exceptionState\n
                    exception =
currentException\n                }\n                try {\n                    val outcome = doResume()\n                    if (outcome
=== COROUTINE_SUSPENDED) return\n                    currentResult = outcome\n                    currentException =
null\n                } catch (exception: dynamic) { // Catch all exceptions\n                    currentResult = null\n
                    currentException = exception.unsafeCast<Throwable>()\n                }\n                releaseIntercepted() // this state
machine instance is terminating\n                if (completion is CoroutineImpl) {\n                    // unrolling recursion
via loop\n                    current = completion\n                } else {\n                    // top-level completion
reached --
invoke and return\n                    currentException?.let {\n
                        completion.resumeWithException(it)\n                    } ?: completion.resume(currentResult)\n
                }\n                return\n            }\n        }\n    }\n\n    private fun releaseIntercepted() {\n        val intercepted =
intercepted_\n        if (intercepted != null && intercepted !== this) {\n
            context[ContinuationInterceptor]!!.releaseInterceptedContinuation(intercepted)\n        }\n        this.intercepted_ =
CompletedContinuation // just in case\n    }\n\n    protected abstract fun doResume(): Any?\n}\n\ninternal object
CompletedContinuation : Continuation<Any?> {\n    override val context: CoroutineContext\n        get() =
error("This continuation is already complete")\n\n    override fun resumeWith(result: Result<Any?>) {\n
        error("This continuation is already complete")\n    }\n\n    override fun toString(): String = "This continuation
is already complete"\n}\n\n", /*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\n@file:Suppress("UNCHECKED_CAST",
"RedundantVisibilityModifier")\n\npackage kotlin\n\nimport kotlin.contracts.*\nimport

```



```

kotlin.internal.InlineOnly\nimport kotlin.jvm.JvmField\nimport kotlin.jvm.JvmInline\nimport
kotlin.jvm.JvmName\n\n/**\n * A discriminated union that encapsulates a successful outcome with a value of type
[T]\n * or a failure with an arbitrary [Throwable] exception.\n *^\n@SinceKotlin("1.3")\n@JvmInline\npublic
value class Result<out T> @PublishedApi internal constructor(\n @PublishedApi\n internal val value: Any?)\n :
Serializable {\n // discovery\n\n /**\n * Returns `true` if this instance represents a successful outcome.\n *
In this case [isFailure] returns `false`.\n *^\n public val isSuccess: Boolean get() = value !is Failure\n\n /**\n
* Returns `true` if this instance represents
a failed outcome.\n * In this case [isSuccess] returns `false`.\n *^\n public val isFailure: Boolean get() =
value is Failure\n\n // value & exception retrieval\n\n /**\n * Returns the encapsulated value if this instance
represents [success][Result.isSuccess] or `null`\n * if it is [failure][Result.isFailure].\n *^\n * This function is
a shorthand for `getOrElse { null }` (see [getOrElse]) or\n * `fold(onSuccess = { it }, onFailure = { null })` (see
[fold]).\n *^\n @InlineOnly\n public inline fun getOrNull(): T? =\n when {\n isFailure -> null\n
else -> value as T\n }\n\n /**\n * Returns the encapsulated [Throwable] exception if this instance
represents [failure][isFailure] or `null`\n * if it is [success][isSuccess].\n *^\n * This function is a shorthand
for `fold(onSuccess = { null }, onFailure = { it })` (see [fold]).\n *^\n public fun exceptionOrNull(): Throwable?
=\n
when (value) {\n is Failure -> value.exception\n else -> null\n }\n\n /**\n * Returns a string
`Success(v)` if this instance represents [success][Result.isSuccess]\n * where `v` is a string representation of the
value or a string `Failure(x)` if\n * it is [failure][isFailure] where `x` is a string representation of the exception.\n
*^\n public override fun toString(): String =\n when (value) {\n is Failure -> value.toString() //
`Failure($exception)`\n else -> `Success($value)`\n }\n\n // companion with constructors\n\n /**\n
* Companion object for [Result] class that contains its constructor functions\n * [success] and [failure].\n *^\n
public companion object {\n /**\n * Returns an instance that encapsulates the given [value] as successful
value.\n *^\n @Suppress("INAPPLICABLE_JVM_NAME")\n @InlineOnly\n
@JvmName("success")\n
public inline fun <T> success(value: T): Result<T> =\n Result(value)\n\n /**\n * Returns an
instance that encapsulates the given [Throwable] [exception] as failure.\n *^\n
@Suppress("INAPPLICABLE_JVM_NAME")\n @InlineOnly\n @JvmName("failure")\n public
inline fun <T> failure(exception: Throwable): Result<T> =\n Result(createFailure(exception))\n }\n\n
internal class Failure(\n @JvmField\n val exception: Throwable\n ): Serializable {\n override fun
equals(other: Any?): Boolean = other is Failure && exception == other.exception\n override fun hashCode():
Int = exception.hashCode()\n override fun toString(): String = `Failure($exception)`\n }\n\n\n/**\n *
Creates an instance of internal marker [Result.Failure] class to\n * make sure that this class is not exposed in ABI.\n
*^\n@PublishedApi\n@SinceKotlin("1.3")\ninternal fun createFailure(exception: Throwable):
Any =\n Result.Failure(exception)\n\n/**\n * Throws exception if the result is failure. This internal function
minimizes\n * inlined bytecode for [getOrThrow] and makes sure that in the future we can\n * add some exception-
augmenting logic here (if needed).\n *^\n@PublishedApi\n@SinceKotlin("1.3")\ninternal fun
Result<*>.throwOnFailure() {\n if (value is Result.Failure) throw value.exception\n}\n\n/**\n * Calls the
specified function [block] and returns its encapsulated result if invocation was successful,\n * catching any
[Throwable] exception that was thrown from the [block] function execution and encapsulating it as a failure.\n
*^\n@InlineOnly\n@SinceKotlin("1.3")\npublic inline fun <R> runCatching(block: () -> R): Result<R> {\n
return try {\n Result.success(block())\n } catch (e: Throwable) {\n Result.failure(e)\n }\n}\n\n/**\n *
Calls the specified function [block] with `this` value as its receiver and returns its encapsulated result if invocation
was successful,\n * catching any [Throwable] exception that was thrown from the [block] function execution and
encapsulating it as a failure.\n *^\n@InlineOnly\n@SinceKotlin("1.3")\npublic inline fun <T, R>
T.runCatching(block: T.() -> R): Result<R> {\n return try {\n Result.success(block())\n } catch (e:
Throwable) {\n Result.failure(e)\n }\n}\n\n// -- extensions ---\n\n/**\n * Returns the encapsulated value if this
instance represents [success][Result.isSuccess] or throws the encapsulated [Throwable] exception\n * if it is

```

[failure][Result.isFailure].\n \* This function is a shorthand for `getOrElse { throw it }` (see [getOrElse]).\n

```
*\n@InlineOnly\n@SinceKotlin("1.3")\npublic inline fun <T> Result<T>.getOrThrow(): T {\n    throwOnFailure()\n    return value as T\n}
```

\n\n\*\*\n \* Returns the encapsulated value if this instance represents [success][Result.isSuccess] or the\n \* result of [onFailure] function for the encapsulated [Throwable] exception if it is [failure][Result.isFailure].\n \* Note, that this function rethrows any [Throwable] exception thrown by [onFailure] function.\n \* This function is a shorthand for `fold(onSuccess = { it }, onFailure = onFailure)` (see [fold]).\n

```
*\n@InlineOnly\n@SinceKotlin("1.3")\npublic inline fun <R, T : R> Result<T>.getOrElse(onFailure: (exception: Throwable) -> R): R {\n    contract {\n        callsInPlace(onFailure,\n            InvocationKind.AT_MOST_ONCE)\n    }\n    return when (val exception = exceptionOrNull()) {\n        null -> value as T\n        else -> onFailure(exception)\n    }\n}
```

\n\n\*\*\n \* Returns the encapsulated value if this instance represents [success][Result.isSuccess] or the\n \* [defaultValue] if it is [failure][Result.isFailure].\n \* This function is a shorthand for `getOrElse { defaultValue }` (see [getOrElse]).\n

```
*\n@InlineOnly\n@SinceKotlin("1.3")\npublic inline fun <R, T : R> Result<T>.getOrDefault(defaultValue: R): R {\n    if (isFailure) return defaultValue\n\n    return value as T\n}
```

\n\n\*\*\n \* Returns the result of [onSuccess] for the encapsulated value if this instance represents [success][Result.isSuccess]\n \* or the result of [onFailure] function for the encapsulated [Throwable] exception if it is [failure][Result.isFailure].\n \* Note, that this function rethrows any [Throwable] exception thrown by [onSuccess] or by [onFailure] function.\n

```
*\n@InlineOnly\n@SinceKotlin("1.3")\npublic inline fun <R, T> Result<T>.fold(\n    onSuccess: (value: T) -> R,\n    onFailure: (exception: Throwable) -> R\n): R {\n    contract {\n        callsInPlace(onSuccess, InvocationKind.AT_MOST_ONCE)\n        callsInPlace(onFailure, InvocationKind.AT_MOST_ONCE)\n    }\n    return when (val exception = exceptionOrNull()) {\n        null -> onSuccess(value as T)\n        else -> onFailure(exception)\n    }\n}
```

\n\n// transformation\n\n\*\*\n \* Returns the encapsulated result of the given [transform] function applied to the encapsulated value\n \* if this instance represents [success][Result.isSuccess] or the\n \* original encapsulated [Throwable] exception if it is [failure][Result.isFailure].\n \* Note, that this function rethrows any [Throwable] exception thrown by [transform] function.\n \* See [mapCatching] for an alternative that encapsulates exceptions.\n

```
*\n@InlineOnly\n@SinceKotlin("1.3")\npublic inline fun <R, T> Result<T>.map(transform: (value: T) -> R): Result<R> {\n    contract {\n        callsInPlace(transform, InvocationKind.AT_MOST_ONCE)\n    }\n    return when {\n        isSuccess -> Result.success(transform(value as T))\n        else -> Result(value)\n    }\n}
```

\n\n\*\*\n \* Returns the encapsulated result of the given [transform] function applied to the encapsulated value\n \* if this instance represents [success][Result.isSuccess] or the\n \* original encapsulated [Throwable] exception if it is [failure][Result.isFailure].\n \* This function catches any [Throwable] exception thrown by [transform] function and encapsulates it as a failure.\n \* See [map] for an alternative that rethrows exceptions from `transform` function.\n

```
*\n@InlineOnly\n@SinceKotlin("1.3")\npublic inline fun <R, T> Result<T>.mapCatching(transform: (value: T) -> R): Result<R> {\n    return when {\n        isSuccess -> runCatching { transform(value as T) }\n        else -> Result(value)\n    }\n}
```

\n\n\*\*\n \* Returns the encapsulated result of the given [transform] function applied to the encapsulated [Throwable] exception\n \* if this instance represents [failure][Result.isFailure] or the\n \* original encapsulated value if it is [success][Result.isSuccess].\n \* Note, that this function rethrows any [Throwable] exception thrown by [transform] function.\n \* See [recoverCatching] for an alternative that encapsulates exceptions.\n

```
*\n@InlineOnly\n@SinceKotlin("1.3")\npublic inline fun <R, T : R> Result<T>.recover(transform: (exception: Throwable) -> R): Result<R> {\n    contract {\n        callsInPlace(transform,\n            InvocationKind.AT_MOST_ONCE)\n    }\n    return when (val exception = exceptionOrNull()) {\n        null -> this\n        else -> Result.success(transform(exception))\n    }\n}
```

\n\n\*\*\n \* Returns the encapsulated result of the given [transform] function applied to the encapsulated [Throwable] exception\n \* if this instance represents [failure][Result.isFailure] or the\n \* original encapsulated value if it is [success][Result.isSuccess].\n \* This function catches any [Throwable] exception thrown by [transform] function and encapsulates it as a failure.\n \* See [recover] for an

```

alternative that rethrows exceptions.\n *^@InlineOnly\n@SinceKotlin("1.3")\npublic inline fun <R, T : R>
Result<T>.recoverCatching(transform: (exception: Throwable) -> R): Result<R> {\n    return when (val exception =
exceptionOrNull()) {\n        null -> this\n        else -> runCatching { transform(exception) }\n    }\n}\n\n// "peek"
onto value/exception and pipe\n\n/**\n * Performs the given [action] on the encapsulated
[Throwable] exception if this instance represents [failure][Result.isFailure].\n * Returns the original `Result`
unchanged.\n *^@InlineOnly\n@SinceKotlin("1.3")\npublic inline fun <T> Result<T>.onFailure(action:
(exception: Throwable) -> Unit): Result<T> {\n    contract {\n        callsInPlace(action,
InvocationKind.AT_MOST_ONCE)\n    }\n    exceptionOrNull()?.let { action(it) }\n    return this\n}\n\n/**\n *
Performs the given [action] on the encapsulated value if this instance represents [success][Result.isSuccess].\n *
Returns the original `Result` unchanged.\n *^@InlineOnly\n@SinceKotlin("1.3")\npublic inline fun <T>
Result<T>.onSuccess(action: (value: T) -> Unit): Result<T> {\n    contract {\n        callsInPlace(action,
InvocationKind.AT_MOST_ONCE)\n    }\n    if (isSuccess) action(value as T)\n    return this\n}\n\n// -----
--\n", "/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this
source code is
governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n *^@n\npackage
kotlin.coroutines\n\nimport kotlin.contracts.*\nimport kotlin.coroutines.intrinsics.*\nimport
kotlin.internal.InlineOnly\n\n/**\n * Interface representing a continuation after a suspension point that returns a
value of type `T`.\n *^@SinceKotlin("1.3")\npublic interface Continuation<in T> {\n    /**\n     * The context of
the coroutine that corresponds to this continuation.\n     *^@ public val context: CoroutineContext\n     *^@
Resumes the execution of the corresponding coroutine passing a successful or failed [result] as the\n     * return
value of the last suspension point.\n     *^@ public fun resumeWith(result: Result<T>)\n     *^@ Classes and
interfaces marked with this annotation are restricted when used as receivers for extension\n     * `suspend`
functions. These `suspend` extensions can only invoke other member or extension `suspend` functions on this particular\n
     * receiver and are restricted from calling arbitrary suspension functions.\n     *^@
*^@SinceKotlin("1.3")\n@Target(AnnotationTarget.CLASS)\n@Retention(AnnotationRetention.BINARY)\npu
blic annotation class RestrictsSuspension\n\n/**\n * Resumes the execution of the corresponding coroutine passing
[value] as the return value of the last suspension point.\n *^@SinceKotlin("1.3")\n@InlineOnly\npublic inline
fun <T> Continuation<T>.resume(value: T): Unit =\n    resumeWith(Result.success(value))\n\n/**\n * Resumes the
execution of the corresponding coroutine so that the [exception] is re-thrown right after the\n * last suspension
point.\n *^@SinceKotlin("1.3")\n@InlineOnly\npublic inline fun <T>
Continuation<T>.resumeWithException(exception: Throwable): Unit =\n    resumeWith(Result.failure(exception))\n\n/**\n * Creates a [Continuation] instance with the given [context] and
implementation of [resumeWith] method.\n *^@SinceKotlin("1.3")\n@InlineOnly\npublic inline fun <T>
Continuation(\n    context: CoroutineContext,\n    crossinline resumeWith: (Result<T>) -> Unit):
Continuation<T> =\n    object : Continuation<T> {\n        override val context: CoroutineContext\n            get() =
context\n        override fun resumeWith(result: Result<T>) =\n            resumeWith(result)\n    }\n\n/**\n * Creates
a coroutine without a receiver and with result type [T].\n * This function creates a new, fresh instance of
suspendable computation every time it is invoked.\n * To start executing the created coroutine, invoke
`resume(Unit)` on the returned [Continuation] instance.\n * The [completion] continuation is invoked when the
coroutine completes with a result or an exception.\n * Subsequent invocation of any resume function on the resulting
continuation will produce an [IllegalStateException].\n     *^@
*^@SinceKotlin("1.3")\n@Suppress("UNCHECKED_CAST")\npublic fun <T> (suspend () ->
T).createCoroutine(\n    completion: Continuation<T>): Continuation<Unit>
=\n    SafeContinuation(createCoroutineUnintercepted(completion).intercepted(),
COROUTINE_SUSPENDED)\n\n/**\n * Creates a coroutine with receiver type [R] and result type [T].\n * This
function creates a new, fresh instance of suspendable computation every time it is invoked.\n * To start
executing the created coroutine, invoke `resume(Unit)` on the returned [Continuation] instance.\n * The
[completion] continuation is invoked when the coroutine completes with a result or an exception.\n * Subsequent

```

invocation of any resume function on the resulting continuation will produce an [IllegalStateException].

```

*\n@SinceKotlin("1.3")\n@Suppress("UNCHECKED_CAST")\npublic fun <R, T> (suspend R.() ->
T).createCoroutine(\n receiver: R,\n completion: Continuation<T>\n): Continuation<Unit> =\nSafeContinuation(createCoroutineUnintercepted(receiver, completion).intercepted(),
COROUTINE_SUSPENDED)\n\n/**\n * Starts a coroutine without a receiver and with result type [T].\n * This
function creates and starts a new, fresh instance of suspendable computation every time it is invoked.\n * The
[completion] continuation is invoked when the coroutine completes with a result or an exception.\n
*\n@SinceKotlin("1.3")\n@Suppress("UNCHECKED_CAST")\npublic fun <T> (suspend () ->
T).startCoroutine(\n completion: Continuation<T>\n) {\n
createCoroutineUnintercepted(completion).intercepted().resume(Unit)\n}\n\n/**\n * Starts a coroutine with receiver
type [R] and result type [T].\n * This function creates and starts a new, fresh instance of suspendable computation
every time it is invoked.\n * The [completion] continuation is invoked when the coroutine completes with a result or
an exception.\n
*\n@SinceKotlin("1.3")\n@Suppress("UNCHECKED_CAST")\npublic fun <R, T> (suspend
R.() -> T).startCoroutine(\n receiver: R,\n completion: Continuation<T>\n) {\n
createCoroutineUnintercepted(receiver, completion).intercepted().resume(Unit)\n}\n\n/**\n * Obtains
the current continuation instance inside suspend functions and suspends\n * the currently running coroutine.\n
*\n * In this function both [Continuation.resume] and [Continuation.resumeWithException] can be used either
synchronously in\n * the same stack-frame where the suspension function is run or asynchronously later in the same
thread or\n * from a different thread of execution. Subsequent invocation of any resume function will produce an
[IllegalStateException].\n
*\n@SinceKotlin("1.3")\n@InlineOnly\npublic suspend inline fun <T>
suspendCoroutine(crossinline block: (Continuation<T>) -> Unit): T {\n contract { callsInPlace(block,
InvocationKind.EXACTLY_ONCE) }\n return suspendCoroutineUninterceptedOrReturn { c: Continuation<T> -
->\n val safe = SafeContinuation(c.intercepted())\n block(safe)\n safe.getOrThrow()\n }\n}\n\n/**\n *
Returns the context of the current coroutine.\n
*\n@SinceKotlin("1.3")\n@Suppress("WRONG_MODIFIER_TARGET")\n@InlineOnly\npublic
suspend inline val coroutineContext: CoroutineContext\n get() {\n throw
NotImplementedError("Implemented as intrinsic")\n }\n", "/*\n * Copyright 2010-2018 JetBrains s.r.o. and
Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\n
*\npackage kotlin.coroutines.intrinsics\n\nimport
kotlin.coroutines.*\nimport kotlin.internal.InlineOnly\n\n/**\n * Starts an unintercepted coroutine without a receiver
and with result type [T] and executes it until its first suspension.\n * Returns the result of the coroutine or throws its
exception if it does not suspend or [COROUTINE_SUSPENDED] if it suspends.\n * In the latter case, the
[completion] continuation is invoked when the coroutine completes with a result or an exception.\n
*\n * The
coroutine is started directly in the invoker's thread without going through the [ContinuationInterceptor] that might\n
* be present in
the completion's [CoroutineContext]. It is the invoker's responsibility to ensure that a proper invocation\n * context
is established.\n
*\n * This function is designed to be used from inside of
[suspendCoroutineUninterceptedOrReturn] to resume the execution of the suspended\n * coroutine using a reference
to the suspending function.\n
*\n@SinceKotlin("1.3")\n@InlineOnly\npublic actual inline fun <T> (suspend () ->
T).startCoroutineUninterceptedOrReturn(\n completion: Continuation<T>\n): Any? =
this.asDynamic()(completion, false)\n\n/**\n * Starts an unintercepted coroutine with receiver type [R] and result
type [T] and executes it until its first suspension.\n * Returns the result of the coroutine or throws its exception if
it does not suspend or [COROUTINE_SUSPENDED] if it suspends.\n * In the latter case, the [completion]
continuation is invoked when the coroutine completes with a result or an exception.\n
*\n * The
coroutine is started directly in the invoker's thread without
going through the [ContinuationInterceptor] that might\n * be present in the completion's [CoroutineContext]. It is
the invoker's responsibility to ensure that a proper invocation\n * context is established.\n
*\n * This function is
designed to be used from inside of [suspendCoroutineUninterceptedOrReturn] to resume the execution of the

```

suspended\n \* coroutine using a reference to the suspending function.\n

```

*\n@SinceKotlin("1.3")\n@InlineOnly\npublic actual inline fun <R, T> (suspend R.() ->
T).startCoroutineUninterceptedOrReturn(\n receiver: R,\n completion: Continuation<T>\n): Any? =
this.asDynamic()(receiver, completion, false)\n\n@InlineOnly\ninternal actual inline fun <R, P, T> (suspend R.(P) -
> T).startCoroutineUninterceptedOrReturn(\n receiver: R,\n param: P,\n completion: Continuation<T>\n):
Any? = this.asDynamic()(receiver, param, completion, false)\n\n/**\n * Creates unintercepted coroutine without
receiver and with result type [T].\n * This function creates
a new, fresh instance of suspendable computation every time it is invoked.\n *\n * To start executing the created
coroutine, invoke `resume(Unit)` on the returned [Continuation] instance.\n * The [completion] continuation is
invoked when coroutine completes with result or exception.\n *\n * This function returns unintercepted
continuation.\n * Invocation of `resume(Unit)` starts coroutine immediately in the invoker's call stack without going
through the\n * [ContinuationInterceptor] that might be present in the completion's [CoroutineContext].\n * It is the
invoker's responsibility to ensure that a proper invocation context is established.\n * Note that [completion] of this
function may get invoked in an arbitrary context.\n *\n * [Continuation.intercepted] can be used to acquire the
intercepted continuation.\n * Invocation of `resume(Unit)` on intercepted continuation guarantees that execution of\n
* both the coroutine and [completion] happens in the invocation context established
by\n * [ContinuationInterceptor].\n *\n * Repeated invocation of any resume function on the resulting continuation
corrupts the\n * state machine of the coroutine and may result in arbitrary behaviour or exception.\n
*/\n\n@SinceKotlin("1.3")\npublic actual fun <T> (suspend () -> T).createCoroutineUnintercepted(\n completion:
Continuation<T>\n): Continuation<Unit> =\n // Kotlin/JS suspend lambdas have an extra parameter `suspended`\n
if (this.asDynamic().length == 2) {\n // When `suspended` is true the continuation is created, but not
executed\n this.asDynamic()(completion, true)\n } else {\n
createCoroutineFromSuspendFunction(completion) {\n this.asDynamic()(completion)\n }\n }\n\n/**\n * Creates unintercepted coroutine with receiver type [R] and result type [T].\n * This function creates a new, fresh
instance of suspendable computation every time it is invoked.\n *\n * To start executing the created coroutine,
invoke `resume(Unit)`
on the returned [Continuation] instance.\n * The [completion] continuation is invoked when coroutine completes
with result or exception.\n *\n * This function returns unintercepted continuation.\n * Invocation of `resume(Unit)`
starts coroutine immediately in the invoker's call stack without going through the\n * [ContinuationInterceptor] that
might be present in the completion's [CoroutineContext].\n * It is the invoker's responsibility to ensure that a proper
invocation context is established.\n * Note that [completion] of this function may get invoked in an arbitrary
context.\n *\n * [Continuation.intercepted] can be used to acquire the intercepted continuation.\n * Invocation of
`resume(Unit)` on intercepted continuation guarantees that execution of\n * both the coroutine and [completion]
happens in the invocation context established by\n * [ContinuationInterceptor].\n *\n * Repeated invocation of any
resume function on the resulting continuation corrupts the\n * state machine of
the coroutine and may result in arbitrary behaviour or exception.\n */\n\n@SinceKotlin("1.3")\npublic actual fun
<R, T> (suspend R.() -> T).createCoroutineUnintercepted(\n receiver: R,\n completion: Continuation<T>\n):
Continuation<Unit> =\n // Kotlin/JS suspend lambdas have an extra parameter `suspended`\n if
(this.asDynamic().length == 3) {\n // When `suspended` is true the continuation is created, but not executed\n
this.asDynamic()(receiver, completion, true)\n } else {\n createCoroutineFromSuspendFunction(completion)
{\n this.asDynamic()(receiver, completion)\n }\n }\n\n/**\n * Intercepts this continuation with
[ContinuationInterceptor].\n *\n * This function shall be used on the immediate result of
[createCoroutineUnintercepted] or [suspendCoroutineUninterceptedOrReturn],\n * in which case it checks for
[ContinuationInterceptor] in the continuation's [context][Continuation.context],\n * invokes
[ContinuationInterceptor.interceptContinuation],
caches and returns the result.\n *\n * If this function is invoked on other [Continuation] instances it returns `this`
continuation unchanged.\n */\n\n@SinceKotlin("1.3")\npublic actual fun <T> Continuation<T>.intercepted():
Continuation<T> =\n (this as? CoroutineImpl)?.intercepted() ?: this\n\nprivate inline fun <T>

```

```

createCoroutineFromSuspendFunction(\n completion: Continuation<T>,\n crossinline block: () -> Any?)\n):
Continuation<Unit> {\n @Suppress("UNCHECKED_CAST")\n return object : CoroutineImpl(completion as
Continuation<Any?>) {\n override fun doResume(): Any? {\n exception?.let { throw it }\n return
block()\n }\n }\n },"/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\n// Mirrors signature from JS IR BE\n// Used for
js.translator/testData/box/number/mulInt32.kt\n@library\n@jsName("imulEmulated")\n@Suppress("UNUSED_P
ARAMETER")\n\ninternal fun imul(x: Int, y: Int): Int =
definedExternally\n\n@Suppress("NOTHING_TO_INLINE")\n\ninternal inline fun isArrayish(o: dynamic) =
js("Kotlin").isArrayish(o)\n"},"/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin\n\n// NOTE: Do not author your exceptions as they are written in
this file, instead use this template:\n\n/*\n\npublic open class MyException : Exception {\n constructor() : super()\n
constructor(message: String?) : super(message)\n constructor(message: String?, cause: Throwable?) :
super(message, cause)\n constructor(cause: Throwable?) : super(cause)\n}\n*/\n\n// TODO: remove primary
constructors, make all secondary KT-22055\n\n@Suppress("USELESS_ELVIS_RIGHT_IS_NULL")\n\npublic
actual open class Error actual constructor(message: String?, cause: Throwable?) : Throwable(message, cause ?
: null) {\n actual constructor() : this(null, null)\n actual constructor(message: String?) : this(message, null)\n
actual constructor(cause: Throwable?) : this(undefin
ed, cause)\n}\n\n@Suppress("USELESS_ELVIS_RIGHT_IS_NULL")\n\npublic actual open class Exception actual
constructor(message: String?, cause: Throwable?) : Throwable(message, cause ? : null) {\n actual constructor()
: this(null, null)\n actual constructor(message: String?) : this(message, null)\n actual constructor(cause:
Throwable?) : this(undefin
ed, cause)\n}\n\npublic actual open class RuntimeException actual constructor(message:
String?, cause: Throwable?) : Exception(message, cause) {\n actual constructor() : this(null, null)\n actual
constructor(message: String?) : this(message, null)\n actual constructor(cause: Throwable?) : this(undefin
ed, cause)\n}\n\npublic actual open
class IllegalArgumentException actual constructor(message: String?, cause: Throwable?) :
RuntimeException(message, cause) {\n actual constructor() : this(null, null)\n actual constructor(message:
String?) : this(message, null)\n actual constructor(cause: Throwable?) : this(undefin
ed, cause)\n}\n\npublic actual
open class IllegalStateException actual constructor(message: String?, cause: Throwable?) :
RuntimeException(message, cause) {\n actual constructor() : this(null, null)\n actual constructor(message:
String?) : this(message, null)\n actual constructor(cause: Throwable?) : this(undefin
ed, cause)\n}\n\npublic actual
open class IndexOutOfBoundsException actual constructor(message: String?) : RuntimeException(message) {\n
actual constructor() : this(null)\n}\n\npublic actual open class ConcurrentModificationException actual
constructor(message: String?, cause: Throwable?) : RuntimeException(message, cause) {\n actual constructor() :
this(null, null)\n actual
constructor(message: String?) : this(message, null)\n actual constructor(cause: Throwable?) : this(undefin
ed, cause)\n}\n\npublic actual open class UnsupportedOperationException actual constructor(message: String?, cause:
Throwable?) : RuntimeException(message, cause) {\n actual constructor() : this(null, null)\n actual
constructor(message: String?) : this(message, null)\n actual constructor(cause: Throwable?) : this(undefin
ed, cause)\n}\n\n\npublic actual open class NumberFormatException actual constructor(message: String?) :
IllegalArgumentException(message) {\n actual constructor() : this(null)\n}\n\n\npublic actual open class
NullPointerException actual constructor(message: String?) : RuntimeException(message) {\n actual constructor() :
this(null)\n}\n\n\npublic actual open class ClassCastException actual constructor(message: String?) :
RuntimeException(message) {\n actual constructor() : this(null)\n}\n\n\npublic actual open class
AssertionError\n@SinceKotlin("1.4")\n\nconstructor(message:
String?, cause: Throwable?) : Error(message, cause) {\n actual constructor() : this(null)\n constructor(message:
String?) : this(message, null)\n actual constructor(message: Any?) : this(message.toString(), message as?

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Throwable)\n}\n\npublic actual open class NoSuchElementException actual constructor(message: String?) :
RuntimeException(message) {\n  actual constructor() : this(null)\n}\n\n@SinceKotlin("1.3")\npublic actual open
class ArithmeticException actual constructor(message: String?) : RuntimeException(message) {\n  actual
constructor() : this(null)\n}\n\npublic actual open class NoWhenBranchMatchedException actual
constructor(message: String?, cause: Throwable?) : RuntimeException(message, cause) {\n  actual constructor() :
this(null, null)\n  actual constructor(message: String?) : this(message, null)\n  actual constructor(cause:
Throwable?) : this(undefiend, cause)\n}\n\npublic actual open class UninitializedPropertyAccessException
actual constructor(message: String?, cause: Throwable?) : RuntimeException(message, cause) {\n  actual
constructor() : this(null, null)\n  actual constructor(message: String?) : this(message, null)\n  actual
constructor(cause: Throwable?) : this(undefiend, cause)\n}\n\n"/*\n * Copyright 2010-2019 JetBrains s.r.o. Use of
this source code is governed by the Apache 2.0 license\n * that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:Suppress("UNUSED_PARAMETER")\n\npackage kotlin.js\n\n@kotlin.internal.InlineOnly\n\ninternal
inline fun jsDeleteProperty(obj: Any, property: Any) {\n  js("delete
obj[property]")\n}\n\n@kotlin.internal.InlineOnly\n\ninternal inline fun jsBitwiseOr(lhs: Any?, rhs: Any?): Int =\n
js("lhs | rhs").unsafeCast<Int>()\n\n"/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage
kotlin.math\n\n/**\n * Returns this value with the sign bit same as of the [sign] value.\n * If [sign] is `NaN` the
sign of the result is undefined.\n */\n\n@SinceKotlin("1.2")\n\npublic actual fun Double.withSign(sign: Double):
Double {\n  val thisSignBit = js("Kotlin").doubleSignBit(this).unsafeCast<Int>()\n  val newSignBit =
js("Kotlin").doubleSignBit(sign).unsafeCast<Int>()\n  return if (thisSignBit == newSignBit) this else -
this\n}\n\n"/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of
this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\npackage kotlin\n\n/**\n * Returns a bit representation of the specified floating-point value as [Long]\n *
according to the IEEE 754 floating-point "double format" bit layout.\n */\n\n@SinceKotlin("1.2")\n\n@library("doubleToBits")\n\npublic actual fun Double.toBits(): Long =
definedExternally\n\n/**\n * Returns a bit representation
of the specified floating-point value as [Long]\n * according to the IEEE 754 floating-point "double format" bit
layout,\n * preserving `NaN` values exact layout.\n */\n\n@SinceKotlin("1.2")\n\n@library("doubleToRawBits")\n\npublic actual fun Double.toRawBits(): Long =
definedExternally\n\n/**\n * Returns the [Double] value corresponding to a given bit representation.\n */\n\n@SinceKotlin("1.2")\n\n@kotlin.internal.InlineOnly\n\npublic actual inline fun Double.Companion.fromBits(bits:
Long): Double = js("Kotlin").doubleFromBits(bits).unsafeCast<Double>()\n\n/**\n * Returns a bit representation
of the specified floating-point value as [Int]\n * according to the IEEE 754 floating-point "single format" bit
layout.\n * Note that in Kotlin/JS [Float] range is wider than "single format" bit layout can represent,\n * so
some [Float] values may overflow, underflow or loose their accuracy after conversion to bits and back.\n */\n\n@SinceKotlin("1.2")\n\n@library("floatToBits")\n\npublic
actual fun Float.toBits(): Int = definedExternally\n\n/**\n * Returns a bit representation of the specified floating-
point value as [Int]\n * according to the IEEE 754 floating-point "single format" bit layout,\n * preserving `NaN`
values exact layout.\n * Note that in Kotlin/JS [Float] range is wider than "single format" bit layout can
represent,\n * so some [Float] values may overflow, underflow or loose their accuracy after conversion to bits and
back.\n */\n\n@SinceKotlin("1.2")\n\n@library("floatToRawBits")\n\npublic actual fun Float.toRawBits(): Int =
definedExternally\n\n/**\n * Returns the [Float] value corresponding to a given bit representation.\n */\n\n@SinceKotlin("1.2")\n\n@kotlin.internal.InlineOnly\n\npublic actual inline fun Float.Companion.fromBits(bits:
Int): Float =
js("Kotlin").floatFromBits(bits).unsafeCast<Float>()\n\n@Suppress("NOTHING_TO_INLINE")\n\ninternal
inline fun Long(low: Int, high: Int) = js("Kotlin").Long.fromBits(low, high).unsafeCast<Long>()\n\ninternal

```









```

    decodedRangeCategory = decodeVarLenBase64(rangeCategory, fromBase64, 222)\n    }\n}\n\n/**\n * Returns
`true` if this character is a letter.\n */\ninternal fun Char.isLetterImpl(): Boolean {\n    return getLetterType() !=
0\n}\n}\n\n/**\n * Returns `true` if this character is a lower case letter, or it has contributory property
`Other_Lowercase`.\n */\ninternal fun Char.isLowerCaseImpl(): Boolean {\n    return getLetterType() == 1 ||
code.isOtherLowercase()\n}\n}\n\n/**\n * Returns `true` if this character is an upper case letter, or it has contributory
property `Other_Uppercase`.\n */\ninternal fun Char.isUpperCaseImpl(): Boolean {\n    return getLetterType() == 2
|| code.isOtherUppercase()\n}\n}\n\n/**\n * Returns\n * - `1` if the character is a lower case letter,\n * - `2` if the character is an upper case letter,\n * - `3`
if the character is a letter but not a lower or upper case letter,\n * - `0` otherwise.\n */\nprivate fun
Char.getLetterType(): Int {\n    val ch = this.code\n    val index = binarySearchRange(Letter.decodedRangeStart,
ch)\n    val rangeStart = Letter.decodedRangeStart[index]\n    val rangeEnd = rangeStart +
Letter.decodedRangeLength[index] - 1\n    val code = Letter.decodedRangeCategory[index]\n    if (ch > rangeEnd)
{\n        return 0\n    }\n    val lastTwoBits = code and 0x3\n    if (lastTwoBits == 0) { // gap pattern\n        var
shift = 2\n        var threshold = rangeStart\n        for (i in 0..1) {\n            threshold += (code shr shift) and 0x7f\n
            if (threshold > ch) {\n                return 3\n            }\n            shift += 7\n            threshold += (code shr shift) and
0x7f\n            if (threshold > ch) {\n                return 0\n            }\n            shift += 7\n        }\n        return 3\n    }\n    if (code <= 0x7) {\n        return
lastTwoBits\n    }\n    val distance = (ch - rangeStart)\n    val shift = if (code <= 0x1F) distance % 2 else distance\n
return (code shr (2 * shift)) and 0x3\n}\n}\n\n"/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/\n\n// NOTE: THIS FILE IS AUTO-GENERATED by the
GenerateUnicodeData.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\n/\n\nprivate object
OtherLowercase {\n    internal val otherLowerStart = intArrayOf(\n        0x00aa, 0x00ba, 0x02b0, 0x02c0, 0x02e0,
0x0345, 0x037a, 0x1d2c, 0x1d78, 0x1d9b, 0x2071, 0x207f, 0x2090, 0x2170, 0x24d0, 0x2c7c, 0xa69c, 0xa770,
0xa7f8, 0xab5c, \n    )\n    internal val otherLowerLength = intArrayOf(\n        1, 1, 9, 2, 5, 1, 1, 63, 1, 37, 1, 1, 13, 16, 26, 2, 2, 1, 2, 4, \n    )\n}\n\ninternal fun Int.isOtherLowercase():
Boolean {\n    val index = binarySearchRange(OtherLowercase.otherLowerStart, this)\n    return index >= 0 && this
< OtherLowercase.otherLowerStart[index] + OtherLowercase.otherLowerLength[index]\n}\n}\n\n"/*\n * Copyright
2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/\n\n//
NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\n/\n\ninternal fun Int.isOtherUppercase(): Boolean
{\n    return this in 0x2160..0x216f\n        || this in 0x24b6..0x24cf\n}\n}\n\n"/*\n * Copyright 2010-2021 JetBrains
s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0
license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/\n\n// NOTE: THIS FILE
IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\n/\n\nimport kotlin.js.*\n\n/**\n * Returns a
character at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this char
sequence.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic actual fun
CharSequence.elementAt(index: Int): Char {\n    return elementAtOrElse(index) { throw
IndexOutOfBoundsException("index: $index, length: $length") }\n}\n}\n\n"/*\n * Copyright 2010-2021 JetBrains
s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0
license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/\n\n// NOTE: THIS FILE IS
AUTO-GENERATED by the GenerateUnicodeData.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\n/\n\n4 ranges totally\n\ninternal fun Char.titlecaseCharImpl(): Char {\n    val code = this.code\n    // Letters repeating <Lu,
Lt, Ll> sequence and code of the Lt is a multiple of 3, e.g. <\u01c4, \u01c5, \u01c6>\n    if (code in 0x01c4..0x01cc
|| code in 0x01f1..0x01f3) {\n        return (3 * ((code + 1) / 3)).toChar()\n    }\n    // Lower case letters whose title

```

```

case mapping equivalent is equal to the original letter\n  if (code in 0x10d0..0x10fa || code in 0x10fd..0x10ff) {\n
  return this\n  }\n  return uppercaseChar()\n}", "/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n *^\n\npackage kotlin.collections\n\n/\n\n// NOTE: THIS FILE IS AUTO-
GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\nimport
kotlin.js.*\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns an element at the given
[index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAt\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic actual fun UIntArray.elementAt(index: Int):
UInt {\n  return elementAtOrElse(index) { throw IndexOutOfBoundsException("\nindex: $index, size: $size")\n
}\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is
out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic actual fun ULongArray.elementAt(index: Int):
ULong {\n  return elementAtOrElse(index) { throw IndexOutOfBoundsException("\nindex: $index, size: $size")\n
}\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException]
if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAt\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic actual fun UByteArray.elementAt(index: Int):
UByte {\n  return elementAtOrElse(index) { throw IndexOutOfBoundsException("\nindex: $index, size: $size")\n
}\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is
out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic actual fun UShortArray.elementAt(index: Int):
UShort {\n  return elementAtOrElse(index) { throw IndexOutOfBoundsException("\nindex: $index, size: $size")\n
}\n}\n\n/**\n * Returns a [List] that wraps the original array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic actual fun UIntArray.asList(): List<UInt> {\n
return object : AbstractList<UInt>(),
RandomAccess {\n  override val size: Int get() = this@asList.size\n  override fun isEmpty(): Boolean =
this@asList.isEmpty()\n  override fun contains(element: UInt): Boolean = this@asList.contains(element)\n
override fun get(index: Int): UInt {\n    AbstractList.checkElementIndex(index, size)\n    return
this@asList[index]\n  }\n  override fun indexOf(element: UInt): Int {\n
@Suppress("USELESS_CAST")\n    if ((element as Any?) !is UInt) return -1\n    return
this@asList.indexOf(element)\n  }\n  override fun lastIndexOf(element: UInt): Int {\n
@Suppress("USELESS_CAST")\n    if ((element as Any?) !is UInt) return -1\n    return
this@asList.lastIndexOf(element)\n  }\n}\n}\n\n/**\n * Returns a [List] that wraps the original array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic actual fun ULongArray.asList(): List<ULong>
{\n  return
object : AbstractList<ULong>(), RandomAccess {\n  override val size: Int get() = this@asList.size\n
override fun isEmpty(): Boolean = this@asList.isEmpty()\n  override fun contains(element: ULong): Boolean =
this@asList.contains(element)\n  override fun get(index: Int): ULong {\n
AbstractList.checkElementIndex(index, size)\n    return this@asList[index]\n  }\n  override fun
indexOf(element: ULong): Int {\n    @Suppress("USELESS_CAST")\n    if ((element as Any?) !is
ULong) return -1\n    return this@asList.indexOf(element)\n  }\n  override fun lastIndexOf(element:
ULong): Int {\n    @Suppress("USELESS_CAST")\n    if ((element as Any?) !is ULong) return -1\n
return this@asList.lastIndexOf(element)\n  }\n}\n}\n\n/**\n * Returns a [List] that wraps the original
array.\n *^\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic actual fun UByteArray.asList():
List<UByte> {\n  return object : AbstractList<UByte>(), RandomAccess {\n  override val size: Int get() =
this@asList.size\n  override fun isEmpty(): Boolean = this@asList.isEmpty()\n  override fun

```



PROPERTY\_GETTER, PROPERTY\_SETTER)\npublic actual annotation class JsName(actual val name: String)\n\n/\*\*\n \* Denotes an `external` declaration that must be imported from native JavaScript library.\n \*\n \* The compiler produces the code relevant for the target module system, for example, in case of CommonJS,\n \* it will import the declaration via the `require(...)` function.\n \*\n \* The annotation can be used on top-level external declarations (classes, properties, functions) and files.\n \* In case of file (which can't be `external`) the following rule applies: all the declarations in\n\n \* the file must be `external`. By applying `@JsModule(...)` on a file you tell the compiler to import a JavaScript object\n \* that contain all the declarations from the file.\n \*\n \* Example:\n \*\n \* ``` kotlin\n \* @JsModule("jquery")\n \* external abstract class JQuery() {\n \* // some declarations here\n \* }\n \*\n \* @JsModule("jquery")\n \* external fun JQuery(element: Element): JQuery\n \* ```\n \*\n \* @property import name of a module to import declaration from.\n \* It is not interpreted by the Kotlin compiler, it's passed as is directly to the target module system.\n \*\n \* @see JsNonModule\n\n\*/\n\n@Retention(AnnotationRetention.BINARY)\n@Target(CLASS, PROPERTY, FUNCTION, FILE)\npublic annotation class JsModule(val import: String)\n\n/\*\*\n \* Denotes an `external` declaration that can be used without module system.\n \*\n \* By default, an `external` declaration is available regardless your target module system.\n \*\n \* However, by applying [JsModule] annotation you can make a declaration unavailable to `plain` module system.\n \*\n \* Some JavaScript libraries are distributed both as a standalone downloadable piece of JavaScript and as a module available\n \* as an npm package.\n \*\n \* To tell the Kotlin compiler to accept both cases, you can augment [JsModule] with the `@JsNonModule` annotation.\n \*\n \* For example:\n \*\n \* ``` kotlin\n \* @JsModule("jquery")\n \* @JsNonModule\n \* @JsName("\$")\n \* external abstract class JQuery()\n \* {\n \* // some declarations here\n \* }\n \*\n \* @JsModule("jquery")\n \* @JsNonModule\n \* @JsName("\$")\n \* external fun JQuery(element: Element): JQuery\n \* ```\n \*\n \* @see JsModule\n\n\*/\n\n@Retention(AnnotationRetention.BINARY)\n@Target(CLASS, PROPERTY, FUNCTION, FILE)\npublic annotation class JsNonModule\n\n/\*\*\n \* Adds prefix to `external` declarations in a source file.\n \*\n \* JavaScript does not have concept of packages (namespaces). They are usually emulated by nested objects.\n \*\n \* The compiler turns references to `external` declarations either to plain unprefixed names (in case of `plain` modules)\n \* or to plain imports.\n \*\n \* However, if a JavaScript library provides its declarations in packages, you won't be satisfied with this.\n \*\n \* You can tell the compiler to generate additional prefix before references to `external` declarations using the `@JsQualifier(...)`\n \* annotation.\n \*\n \* Note that a file marked with the `@JsQualifier(...)` annotation can't contain non-`external` declarations.\n \*\n \* Example:\n \*\n \* ``` kotlin\n \* @file:JsQualifier("my.jsPackageName")\n \* package some.kotlinPackage\n \*\n \* external fun foo(x: Int)\n \*\n \* external fun bar(): String\n \* ```\n \*\n \* @property value the qualifier to add to the declarations in the generated code.\n \* It must be a sequence of valid JavaScript identifiers separated by the `.`\n \* character.\n \* Examples of valid qualifiers are: `foo`, `bar.Baz`, `\_.\$.f`.\n \*\n \* @see JsModule\n\n\*/\n\n@Retention(AnnotationRetention.BINARY)\n@Target(AnnotationTarget.FILE)\npublic annotation class JsQualifier(val value: String)\n\n/\*\*\n \* Exports top-level declaration on JS platform.\n \*\n \* Compiled module exposes declarations that are marked with this annotation without name mangling.\n \*\n \* This annotation can be applied to either files or top-level declarations.\n \*\n \* It is currently prohibited to export the following kinds of declarations:\n \*\n \* \* `expect` declarations\n \* \* inline functions with reified type parameters\n \* \* suspend functions\n \* \* secondary constructors without `@JsName`\n \* \* extension properties\n \* \* enum classes\n \* \* annotation classes\n \*\n \* Signatures of exported declarations must only contain `exportable` types:\n \*\n \* \* `dynamic`, `Any`, `String`, `Boolean`, `Byte`, `Short`, `Int`, `Float`, `Double`\n \* \* `BooleanArray`, `ByteArray`, `ShortArray`, `IntArray`, `FloatArray`, `DoubleArray`\n \* \* `Array<exportable-type>`\n \* \* Function types with exportable parameters and return types\n \*\n \* \* `external` or `@JsExport` classes and interfaces\n \* \* Nullable counterparts of types above\n \* \* Unit return type. Must not be nullable\n \*\n \* This annotation is experimental, meaning that restrictions mentioned above are subject to change.\n\n\*/\n\n@ExperimentalJsExport\n@Retention(AnnotationRetention.BINARY)\n@Target(CLASS, PROPERTY, FUNCTION, FILE)\n@SinceKotlin("1.3")\npublic actual annotation class JsExport\n\n/\*\*\n \* Denotes an `external` declaration that must be imported from native JavaScript library.\n \*\n \* The compiler produces the code relevant for the target module system, for example, in case of CommonJS,\n \* it will import the declaration via the `require(...)` function.\n \*\n \* The annotation can be used on top-level external declarations (classes, properties, functions) and files.\n \* In case of file (which can't be `external`) the following rule applies: all the declarations in\n\n \* the file must be `external`. By applying `@JsModule(...)` on a file you tell the compiler to import a JavaScript object\n \* that contain all the declarations from the file.\n \*\n \* Example:\n \*\n \* ``` kotlin\n \* @JsModule("jquery")\n \* external abstract class JQuery() {\n \* // some declarations here\n \* }\n \*\n \* @JsModule("jquery")\n \* external fun JQuery(element: Element): JQuery\n \* ```\n \*\n \* @property import name of a module to import declaration from.\n \* It is not interpreted by the Kotlin compiler, it's passed as is directly to the target module system.\n \*\n \* @see JsNonModule\n\n\*/\n\n@Retention(AnnotationRetention.BINARY)\n@Target(CLASS, PROPERTY, FUNCTION, FILE)\npublic annotation class JsModule(val import: String)\n\n/\*\*\n \* Denotes an `external` declaration that can be used without module system.\n \*\n \* By default, an `external` declaration is available regardless your target module system.\n \*\n \* However, by applying [JsModule] annotation you can make a declaration unavailable to `plain` module system.\n \*\n \* Some JavaScript libraries are distributed both as a standalone downloadable piece of JavaScript and as a module available\n \* as an npm package.\n \*\n \* To tell the Kotlin compiler to accept both cases, you can augment [JsModule] with the `@JsNonModule` annotation.\n \*\n \* For example:\n \*\n \* ``` kotlin\n \* @JsModule("jquery")\n \* @JsNonModule\n \* @JsName("\$")\n \* external abstract class JQuery()\n \* {\n \* // some declarations here\n \* }\n \*\n \* @JsModule("jquery")\n \* @JsNonModule\n \* @JsName("\$")\n \* external fun JQuery(element: Element): JQuery\n \* ```\n \*\n \* @see JsModule\n\n\*/\n\n@Retention(AnnotationRetention.BINARY)\n@Target(CLASS, PROPERTY, FUNCTION, FILE)\npublic annotation class JsNonModule\n\n/\*\*\n \* Adds prefix to `external` declarations in a source file.\n \*\n \* JavaScript does not have concept of packages (namespaces). They are usually emulated by nested objects.\n \*\n \* The compiler turns references to `external` declarations either to plain unprefixed names (in case of `plain` modules)\n \* or to plain imports.\n \*\n \* However, if a JavaScript library provides its declarations in packages, you won't be satisfied with this.\n \*\n \* You can tell the compiler to generate additional prefix before references to `external` declarations using the `@JsQualifier(...)`\n \* annotation.\n \*\n \* Note that a file marked with the `@JsQualifier(...)` annotation can't contain non-`external` declarations.\n \*\n \* Example:\n \*\n \* ``` kotlin\n \* @file:JsQualifier("my.jsPackageName")\n \* package some.kotlinPackage\n \*\n \* external fun foo(x: Int)\n \*\n \* external fun bar(): String\n \* ```\n \*\n \* @property value the qualifier to add to the declarations in the generated code.\n \* It must be a sequence of valid JavaScript identifiers separated by the `.`\n \* character.\n \* Examples of valid qualifiers are: `foo`, `bar.Baz`, `\_.\$.f`.\n \*\n \* @see JsModule\n\n\*/\n\n@Retention(AnnotationRetention.BINARY)\n@Target(AnnotationTarget.FILE)\npublic annotation class JsQualifier(val value: String)\n\n/\*\*\n \* Exports top-level declaration on JS platform.\n \*\n \* Compiled module exposes declarations that are marked with this annotation without name mangling.\n \*\n \* This annotation can be applied to either files or top-level declarations.\n \*\n \* It is currently prohibited to export the following kinds of declarations:\n \*\n \* \* `expect` declarations\n \* \* inline functions with reified type parameters\n \* \* suspend functions\n \* \* secondary constructors without `@JsName`\n \* \* extension properties\n \* \* enum classes\n \* \* annotation classes\n \*\n \* Signatures of exported declarations must only contain `exportable` types:\n \*\n \* \* `dynamic`, `Any`, `String`, `Boolean`, `Byte`, `Short`, `Int`, `Float`, `Double`\n \* \* `BooleanArray`, `ByteArray`, `ShortArray`, `IntArray`, `FloatArray`, `DoubleArray`\n \* \* `Array<exportable-type>`\n \* \* Function types with exportable parameters and return types\n \*\n \* \* `external` or `@JsExport` classes and interfaces\n \* \* Nullable counterparts of types above\n \* \* Unit return type. Must not be nullable\n \*\n \* This annotation is experimental, meaning that restrictions mentioned above are subject to change.\n\n\*/\n\n@ExperimentalJsExport\n@Retention(AnnotationRetention.BINARY)\n@Target(CLASS, PROPERTY, FUNCTION, FILE)\n@SinceKotlin("1.3")\npublic actual annotation class JsExport\n

Forces a top-level property to be initialized eagerly, opposed to lazily on the first access to file and/or property.  
\*  
@ExperimentalStdlibApi  
@Retention(AnnotationRetention.BINARY)  
@Target(AnnotationTarget.PROPERTY)  
@SinceKotlin("1.6")  
@Deprecated("This annotation is a temporal migration assistance and may be removed in the future releases, please consider filing an issue about the case where it is needed")  
public annotation class EagerInitialization  
", /\*  
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\*  
package kotlin.jvm  
// these are used in common generated code in stdlib  
// TODO: find how to deprecate these ones  
@Target(AnnotationTarget.FIELD)  
@Retention(AnnotationRetention.SOURCE)  
public actual annotation class Volatile  
@Target(AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY\_GETTER,

AnnotationTarget.PROPERTY\_SETTER)  
@Retention(AnnotationRetention.SOURCE)  
public actual annotation class Synchronized  
", /\*  
\* Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.

\* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.  
\*  
package kotlin.collections  
/\*\*  
\* Provides a skeletal implementation of the [MutableCollection] interface.  
\*  
\* @param E the type of elements contained in the collection. The collection is invariant in its element type.

```
*  
public actual abstract class AbstractMutableCollection<E> protected actual constructor() :  
AbstractCollection<E>(), MutableCollection<E> {  
    actual abstract override fun add(element: E): Boolean  
    actual override fun remove(element: E): Boolean {  
        checkIsMutable()  
        val iterator = iterator()  
        while (iterator.hasNext()) {  
            if (iterator.next() == element) {  
                iterator.remove()  
                return true  
            }  
        }  
        return false  
    }  
    actual override fun addAll(elements: Collection<E>): Boolean {  
        checkIsMutable()  
        var modified = false  
        for (element in elements) {  
            if (add(element))  
                modified = true  
        }  
        return modified  
    }  
    actual override fun removeAll(elements: Collection<E>): Boolean {  
        checkIsMutable()  
        return (this as MutableIterable<E>).removeAll { it in elements }  
    }  
    actual override fun retainAll(elements:
```

```
Collection<E>): Boolean {  
        checkIsMutable()  
        return (this as MutableIterable<E>).removeAll { it !in elements }  
    }  
    actual override fun clear(): Unit {  
        checkIsMutable()  
        val iterator = this.iterator()  
        while (iterator.hasNext()) {  
            iterator.next()  
            iterator.remove()  
        }  
    }
```

```
@Deprecated("Provided so that subclasses inherit this function", level = DeprecationLevel.HIDDEN)
```

```
@JsName("toJSON")  
protected fun toJSON(): Any = this.toArray()  
/**  
* This method is called every time when a mutating method is called on this mutable collection.  
* Mutable collections that are built (frozen) must throw `UnsupportedOperationException`.  
*  
internal open fun checkIsMutable(): Unit {  
}  
", /*  
* Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.  
* Use of this source code is governed by the Apache 2.0 license that can be
```

```
found in the license/LICENSE.txt file.  
*  
package kotlin.collections  
/**  
* Provides a skeletal implementation of the [MutableList] interface.  
*  
* @param E the type of elements contained in the list. The list is invariant in its element type.
```

```
*  
public actual abstract class AbstractMutableList<E> protected actual constructor() :  
AbstractMutableCollection<E>(), MutableList<E> {  
    protected var modCount: Int = 0  
    abstract override fun add(index: Int, element: E): Unit  
    abstract override fun removeAt(index: Int): E  
    abstract override fun set(index: Int, element: E): E  
    /**  
    * Adds the specified element to the end of this list.  
    *  
    * @return `true` because the list is always modified as the result of this operation.  
    *  
    actual override fun add(element: E): Boolean {  
        checkIsMutable()  
        add(size, element)  
        return true  
    }  
    actual override fun addAll(index: Int, elements: Collection<E>): Boolean {  
AbstractList.checkPositionIndex(index, size)  
        checkIsMutable()  
        var _index = index  
        var changed = false  
        for (e in elements) {  
            add(_index++, e)  
            changed = true  
        }  
        return changed  
    }  
    actual override fun clear() {  
        checkIsMutable()  
        removeRange(0, size)  
    }  
    actual
```









```

modCount++\n    return true\n    }\n\n    actual override fun removeAt(index: Int): E {\n        checkIsMutable()\n        rangeCheck(index)\n        modCount++\n        return if (index == lastIndex)\n            array.asDynamic().pop()\n        else\n            array.asDynamic().splice(index, 1)[0]\n    }\n\n    actual override fun remove(element: E): Boolean {\n        checkIsMutable()\n        for (index in array.indices) {\n            if (array[index] == element) {\n                array.asDynamic().splice(index, 1)\n                modCount++\n                return true\n            }\n        }\n        return false\n    }\n\n    override fun removeRange(fromIndex: Int, toIndex: Int) {\n        checkIsMutable()\n        modCount++\n        array.asDynamic().splice(fromIndex, toIndex - fromIndex)\n    }\n\n    actual override fun clear() {\n        checkIsMutable()\n        array = emptyArray()\n        modCount++\n    }\n\n\n    actual override fun indexOf(element: E): Int = array.indexOf(element)\n\n    actual override fun lastIndexOf(element: E): Int = array.lastIndexOf(element)\n\n    override fun toString() = arrayToString(array)\n\n    @Suppress("UNCHECKED_CAST")\n    override fun <T> toArray(array: Array<T>): Array<T> {\n        if (array.size < size) {\n            return toArray() as Array<T>\n        }\n        (this.array as Array<T>).copyInto(array)\n        if (array.size > size) {\n            array[size] = null as T // null-terminate\n        }\n        return array\n    }\n\n    override fun toArray(): Array<Any?> {\n        return js("[ ]").slice.call(array)\n    }\n\n\n    internal override fun checkIsMutable() {\n        if (isReadOnly) throw UnsupportedOperationException()\n    }\n\n    private fun rangeCheck(index: Int) = index.apply {\n        AbstractList.checkElementIndex(index, size)\n    }\n\n    private fun insertionRangeCheck(index: Int) = index.apply {\n        AbstractList.checkPositionIndex(index, size)\n    }\n}"/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\npackage kotlin.collections\n\ninternal fun <T> sortArrayWith(array: Array<out T>, comparison: (T, T) -> Int) {\n    if (getStableSortingIsSupported()) {\n        array.asDynamic().sort(comparison)\n    } else {\n        mergeSort(array.unsafeCast<Array<T>>(), 0, array.lastIndex, Comparator(comparison))\n    }\n}\n\ninternal fun <T> sortArrayWith(array: Array<out T>, comparator: Comparator<in T>) {\n    if (getStableSortingIsSupported()) {\n        val comparison = { a: T, b: T -> comparator.compare(a, b) }\n        array.asDynamic().sort(comparison)\n    } else {\n        mergeSort(array.unsafeCast<Array<T>>(), 0, array.lastIndex, comparator)\n    }\n}\n\ninternal fun <T> sortArrayWith(array: Array<out T>, fromIndex: Int, toIndex: Int, comparator: Comparator<in T>) {\n    if (fromIndex < toIndex - 1) {\n        mergeSort(array.unsafeCast<Array<T>>(), fromIndex, toIndex - 1, comparator)\n    }\n}\n\ninternal fun <T : Comparable<T>> sortArray(array: Array<out T>) {\n    if (getStableSortingIsSupported()) {\n        val comparison = { a: T, b: T -> a.compareTo(b) }\n        array.asDynamic().sort(comparison)\n    } else {\n        mergeSort(array.unsafeCast<Array<T>>(), 0, array.lastIndex, naturalOrder())\n    }\n}\n\nprivate var _stableSortingIsSupported: Boolean? = null\nprivate fun getStableSortingIsSupported(): Boolean {\n    {\n        _stableSortingIsSupported?.let { return it }\n        _stableSortingIsSupported = false\n        val array = js("[ ]").unsafeCast<Array<Int>>()\n        // known implementations may use stable sort for arrays of up to 512 elements\n        // so we create slightly more elements to test stability\n        for (index in 0 until 600)\n            array.asDynamic().push(index)\n        val comparison = { a: Int, b: Int -> (a and 3) - (b and 3) }\n        array.asDynamic().sort(comparison)\n        for (index in 1 until array.size) {\n            val a = array[index - 1]\n            val b = array[index]\n            if ((a and 3) == (b and 3) && a >= b) return false\n        }\n        _stableSortingIsSupported = true\n        return true\n    }\n}\n\nprivate fun <T> mergeSort(array: Array<T>, start: Int, endInclusive: Int, comparator: Comparator<in T>) {\n    val buffer = arrayOfNulls<Any?>(array.size).unsafeCast<Array<T>>()\n    val result = mergeSort(array, buffer, start, endInclusive, comparator)\n    if (result != array) {\n        for (i in start..endInclusive) array[i] = result[i]\n    }\n}\n\n// Both start and end are inclusive indices.\nprivate fun <T> mergeSort(array: Array<T>, buffer: Array<T>, start: Int, end: Int, comparator: Comparator<in T>): Array<T> {\n    if (start == end) {\n        return array\n    }\n    val median = (start + end) / 2\n    val left = mergeSort(array, buffer, start, median, comparator)\n    val right = mergeSort(array, buffer, median + 1, end, comparator)\n    val target = if (left == buffer) array else buffer\n    // Merge.\n    var leftIndex = start\n    var rightIndex = median + 1\n    for (i

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in start..end) {\n    when {\n        leftIndex <= median && rightIndex <= end -> {\n            val leftValue =
left[leftIndex]\n            val rightValue = right[rightIndex]\n            if (comparator.compare(leftValue,
rightValue) <= 0) {\n                target[i] = leftValue\n                leftIndex++\n            } else {\n
target[i]
= rightValue\n                rightIndex++\n            }\n        }\n        leftIndex <= median -> {\n
target[i] = left[leftIndex]\n                leftIndex++\n            }\n        else /* rightIndex <= end */ -> {\n
target[i] = right[rightIndex]\n                rightIndex++\n                Unit // TODO: Fix KT-31506\n            }\n        }\n    }\n    return target\n}", /*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\npackage
kotlin.collections\n\n@OptIn(ExperimentalUnsignedTypes::class)\n@SinceKotlin("1.3")\n@kotlin.js.JsName("\ncontentDeepHashCodeImpl")\ninternal fun <T> Array<out T>?.contentDeepHashCodeImpl(): Int {\n    if (this ==
null) return 0\n    var result = 1\n    for (element in this) {\n        val elementHash = when {\n            element
== null -> 0\n            isArrayish(element) -> (element.unsafeCast<Array<*>()).contentDeepHashCodeImpl()\n\n
element is UByteArray -> element.contentHashCode()\n            element is UShortArray ->
element.contentHashCode()\n            element is UIntArray -> element.contentHashCode()\n            element is
ULongArray -> element.contentHashCode()\n\n            else -> element.hashCode()\n        }\n\n        result = 31 * result + elementHash\n    }\n    return result\n}", /*\n * Copyright 2010-2018 JetBrains s.r.o. and
Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\n */\npackage kotlin.collections\n\ninternal interface
EqualityComparator {\n    /**\n     * Subclasses must override to return a value indicating\n     * whether or not two
keys or values are equal.\n     */\n    abstract fun equals(value1: Any?, value2: Any?): Boolean\n\n    /**\n     * Subclasses must override to return the hash code of a given key.\n     */\n    abstract fun
getHashCode(value: Any?): Int\n\n    object HashCode : EqualityComparator {\n        override fun equals(value1:
Any?, value2: Any?): Boolean = value1 == value2\n        override fun getHashCode(value: Any?): Int =
value?.hashCode() ?: 0\n    }\n}", /*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\n/**\n * Based on GWT AbstractHashMap\n * Copyright 2008 Google Inc.\n */\npackage kotlin.collections\n\nimport kotlin.collections.MutableMap.MutableEntry\n\n/**\n * Hash table based
implementation of the [MutableMap] interface.\n * This implementation makes no guarantees regarding the
order of enumeration of [keys], [values] and [entries] collections.\n */\n// Classes that extend HashMap and
implement `build()`
(freezing) operation\n// have to make sure mutating methods check `checkIsMutable`\n\npublic actual open class
HashMap<K, V> : AbstractMutableMap<K, V>, MutableMap<K, V> {\n    private inner class EntrySet :
AbstractEntrySet<MutableEntry<K, V>, K, V>() {\n        override fun add(element: MutableEntry<K, V>):
Boolean = throw UnsupportedOperationException("Add is not supported on entries")\n        override fun clear()
{\n            this@HashMap.clear()\n        }\n        override fun containsEntry(element: Map.Entry<K, V>): Boolean
= this@HashMap.containsEntry(element)\n        override operator fun iterator():
MutableIterator<MutableEntry<K, V>> = internalMap.iterator()\n        override fun removeEntry(element:
Map.Entry<K, V>): Boolean {\n            if (contains(element)) {\n                this@HashMap.remove(element.key)\n
return true\n            }\n            return false\n        }\n        override val size: Int get() =
this@HashMap.size\n    }\n\n    /**\n     * Internal implementation of the map: either string-based or hashcode-based.\n     */\n    private
val internalMap: InternalMap<K, V>\n    private val equality: EqualityComparator\n\n    internal
constructor(internalMap: InternalMap<K, V>) : super() {\n        this.internalMap = internalMap\n        this.equality =
internalMap.equality\n    }\n\n    /**\n     * Constructs an empty [HashMap] instance.\n     */\n    actual constructor()
: this(InternalHashCodeMap(EqualityComparator.HashCode))\n\n    /**\n     * Constructs an empty [HashMap]
instance.\n     */\n    @param initialCapacity the initial capacity (ignored)\n    @param loadFactor the load

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factor (ignored)\n * \n * @throws IllegalArgumentException if the initial capacity or load factor are negative\n
*\n actual constructor(initialCapacity: Int, loadFactor: Float) : this() {\n // This implementation of HashMap
has no need of load factors or capacities.\n require(initialCapacity
>= 0) { \"Negative initial capacity: $initialCapacity\" }\n require(loadFactor >= 0) { \"Non-positive load factor:
$loadFactor\" }\n }\n\n actual constructor(initialCapacity: Int) : this(initialCapacity, 0.0f)\n\n /**\n *
Constructs an instance of [HashMap] filled with the contents of the specified [original] map.\n *\n actual
constructor(original: Map<out K, V>) : this() {\n this.putAll(original)\n }\n\n actual override fun clear() {\n
internalMap.clear()\n// structureChanged(this)\n }\n\n actual override fun containsKey(key: K): Boolean
= internalMap.containsKey()\n\n actual override fun containsValue(value: V): Boolean = internalMap.any {
equality.equals(it.value, value) }\n\n private var _entries: MutableSet<MutableMap.MutableEntry<K, V>>? =
null\n actual override val entries: MutableSet<MutableMap.MutableEntry<K, V>>\n get() {\n if
(_entries == null) {\n _entries
= createEntrySet()\n }\n return _entries!!\n }\n\n internal open fun createEntrySet():
MutableSet<MutableMap.MutableEntry<K, V>> = EntrySet()\n\n actual override operator fun get(key: K): V? =
internalMap.get(key)\n\n actual override fun put(key: K, value: V): V? = internalMap.put(key, value)\n\n actual
override fun remove(key: K): V? = internalMap.remove(key)\n\n actual override val size: Int get() =
internalMap.size\n}\n\n/**\n * Constructs the specialized implementation of [HashMap] with [String] keys, which
stores the keys as properties of\n * JS object without hashing them.\n *\n\npublic fun <V> stringMapOf(vararg pairs:
Pair<String, V>): HashMap<String, V> {\n return HashMap<String,
V>(InternalStringMap(EqualityComparator.HashCode)).apply { putAll(pairs) }\n}\n\n\", \"/*\n * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found
in the license/LICENSE.txt file.\n *\n\n*\n * Based on GWT HashSet\n * Copyright 2008 Google Inc.\n
*\n\npackage kotlin.collections\n\n/**\n * The implementation of the [MutableSet] interface, backed by a
[HashMap] instance.\n *\n\n// Classes that extend HashSet and implement `build()` (freezing) operation\n// have to
make sure mutating methods check `checkIsMutable`.\n\npublic actual open class HashSet<E> :
AbstractMutableSet<E>, MutableSet<E> {\n\n internal val map: HashMap<E, Any>\n\n /**\n * Constructs a
new empty [HashSet].\n *\n actual constructor() {\n map = HashMap<E, Any>()\n }\n\n /**\n *
Constructs a new [HashSet] filled with the elements of the specified collection.\n *\n actual
constructor(elements: Collection<E>) {\n map = HashMap<E, Any>(elements.size)\n addAll(elements)\n
}\n\n /**\n * Constructs a new empty [HashSet].\n *\n * @param initialCapacity the initial capacity
(ignored)\n * @param
loadFactor the load factor (ignored)\n * \n * @throws IllegalArgumentException if the initial capacity or
load factor are negative\n *\n actual constructor(initialCapacity: Int, loadFactor: Float) {\n map =
HashMap<E, Any>(initialCapacity, loadFactor)\n }\n\n actual constructor(initialCapacity: Int) :
this(initialCapacity, 0.0f)\n\n /**\n * Protected constructor to specify the underlying map. This is used by\n *
LinkedHashSet.\n\n * @param map underlying map to use.\n *\n internal constructor(map: HashMap<E,
Any>) {\n this.map = map\n }\n\n actual override fun add(element: E): Boolean {\n val old =
map.put(element, this)\n return old == null\n }\n\n actual override fun clear() {\n map.clear()\n
}\n\n\n// public override fun clone(): Any {\n// return HashSet<E>(this)\n// }\n\n\n actual override operator fun
contains(element: E): Boolean = map.containsKey(element)\n\n actual
override fun isEmpty(): Boolean = map.isEmpty()\n\n actual override fun iterator(): MutableIterator<E> =
map.keys.iterator()\n\n actual override fun remove(element: E): Boolean = map.remove(element) != null\n\n
actual override val size: Int get() = map.size\n}\n\n\n/**\n * Creates a new instance of the specialized
implementation of [HashSet] with the specified [String] elements,\n * which elements the keys as properties of JS
object without hashing them.\n *\n\npublic fun stringSetOf(vararg elements: String): HashSet<String> {\n return
HashSet(stringMapOf<Any>()).apply { addAll(elements) }\n}\n\n\", \"/*\n * Copyright 2010-2018 JetBrains s.r.o. and
Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that

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can be found in the license/LICENSE.txt file.\n */\n\n * Based on GWT InternalHashMap\n * Copyright
2008 Google Inc.\n */\n\npackage kotlin.collections\n\nimport
kotlin.collections.MutableMap.MutableEntry\nimport kotlin.collections.AbstractMutableMap.SimpleEntry\n\n/**\n
 * A simple wrapper around JavaScriptObject to provide [java.util.Map]-like semantics for any\n * key type.\n *\n
*\n * Implementation notes:\n *\n *\n * A key's hashCode is the index in backingMap which should contain that
key. Since several keys may\n * have the same hash, each value in hashCodeMap is actually an array containing all
entries whose\n * keys share the same hash.\n */\n\ninternal class InternalHashMap<K, V>(override val equality:
EqualityComparator) : InternalMap<K, V> {\n\n    private var backingMap: dynamic = createJsMap()\n    override
var size: Int = 0\n    private set\n\n    override fun put(key: K, value: V): V? {\n        val hashCode =
equality.getHashCode(key)\n        val chainOrEntry = getChainOrEntryOrNull(hashCode)\n        if (chainOrEntry
== null) {\n            // This is a new chain, put it to the map.\n            backingMap[hashCode] = SimpleEntry(key,
value)\n        } else {\n
            if (chainOrEntry !is Array<*>) {\n                // It is an entry\n                val entry: SimpleEntry<K, V> =
chainOrEntry\n                if (equality.equals(entry.key, key)) {\n                    return entry.setValue(value)\n
                } else {\n                    backingMap[hashCode] = arrayOf(entry, SimpleEntry(key, value))\n                    size++\n
                    return null\n                } else {\n                    // Chain already exists, perhaps key also exists.\n
                    val chain: Array<MutableEntry<K, V>> = chainOrEntry\n                    val entry = chain.findEntryInChain(key)\n
                    if (entry != null) {\n                        return entry.setValue(value)\n                    }\n
                    chain.asDynamic().push(SimpleEntry(key, value))\n                    }\n                    size++\n                    structureChanged(host)\n
                    return null\n                }\n                override fun remove(key: K): V? {\n                    val hashCode = equality.getHashCode(key)\n
                    val chainOrEntry = getChainOrEntryOrNull(hashCode) ?: return null\n                    if (chainOrEntry !is Array<*>) {\n
                        val entry: MutableEntry<K, V> = chainOrEntry\n                        if (equality.equals(entry.key, key)) {\n
                            jsDeleteProperty(backingMap, hashCode)\n                            size--\n                            return entry.value\n                        } else {\n
                            return null\n                        }\n                    } else {\n                        val chain: Array<MutableEntry<K, V>> = chainOrEntry\n                        for
(index in chain.indices) {\n                            val entry = chain[index]\n                            if (equality.equals(key, entry.key)) {\n
                                if (chain.size == 1) {\n                                    chain.asDynamic().length = 0\n                                    // remove the whole
array\n                                    jsDeleteProperty(backingMap, hashCode)\n                                } else {\n                                    // splice out
the entry we're removing\n                                    chain.asDynamic().splice(index,
1)\n                                }\n                                size--\n                                structureChanged(host)\n                                return entry.value\n
                            }\n                            }\n                            return null\n                        }\n                    }\n                    override fun clear() {\n                        backingMap = createJsMap()\n
                    size = 0\n                    }\n                    override fun contains(key: K): Boolean = getEntry(key) != null\n                    override fun get(key: K):
V? = getEntry(key)?.value\n                    private fun getEntry(key: K): MutableEntry<K, V>? {\n                        val chainOrEntry =
getChainOrEntryOrNull(equality.getHashCode(key)) ?: return null\n                        if (chainOrEntry !is Array<*>) {\n
                            val entry: MutableEntry<K, V> = chainOrEntry\n                            if (equality.equals(entry.key, key)) {\n                                return
entry\n                            } else {\n                                return null\n                            }\n                        } else {\n                            val chain: Array<MutableEntry<K,
V>> = chainOrEntry\n                            return chain.findEntryInChain(key)\n                        }\n                    }\n                    private fun
Array<MutableEntry<K, V>>.findEntryInChain(key: K): MutableEntry<K, V>? =\n                        firstOrNull { entry ->
equality.equals(entry.key, key) }\n                    override fun iterator(): MutableIterator<MutableEntry<K, V>> {\n\n                        return object : MutableIterator<MutableEntry<K, V>> {\n
                            var state = -1 // -1 not ready, 0 - ready, 1 -
done\n                            val keys: Array<String> = js("Object").keys(backingMap)\n                            var keyIndex = -1\n                            var chainOrEntry: dynamic = null\n                            var isChain = false\n                            var itemIndex = -1\n                            var lastEntry:
MutableEntry<K, V>? = null\n                            private fun computeNext(): Int {\n                                if (chainOrEntry != null &&
isChain) {\n                                    val chainSize: Int = chainOrEntry.unsafeCast<Array<MutableEntry<K, V>>>().size\n
                                    if (++itemIndex < chainSize)\n                                        return 0\n                                }\n                                if (++keyIndex < keys.size)\n
                                    {\n                                        chainOrEntry
= backingMap[keys[keyIndex]]\n                                        isChain = chainOrEntry is Array<*>\n                                        itemIndex = 0\n
                                    }\n                                return 1\n                            }\n                        }\n                    }\n                    override fun hasNext(): Boolean {\n                        if (state == -1)\n                            state = computeNext()\n                    }\n                }\n            }\n        }\n    }\n}

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return state == 0\n        }\n        override fun next(): MutableEntry<K, V> {\n            if (!hasNext())\n                throw NoSuchElementException()\n            val lastEntry = if (isChain) {\n                chainOrEntry.unsafeCast<Array<MutableEntry<K, V>>>()[itemIndex]\n            } else {\n                chainOrEntry.unsafeCast<MutableEntry<K, V>>()\n            }\n            this.lastEntry = lastEntry\n            state = -1\n            return lastEntry\n        }\n        override fun remove() {\n            checkNotNull(lastEntry)\n            this@InternalHashMap.remove(lastEntry!!.key)\n            lastEntry =\n            null\n            // the chain being iterated just got modified by InternalHashMap.remove\n            itemIndex--\n        }\n    }\n\n    private fun getChainOrEntryOrNull(hashCode: Int): dynamic {\n        val\n        chainOrEntry = backingMap[hashCode]\n        return if (chainOrEntry === undefined) null else chainOrEntry\n    }\n}\n", "/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of\n * this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n *\n */\npackage kotlin.collections\n/**\n * The common interface of [InternalStringMap] and\n [InternalHashMap].\n */\ninternal interface InternalMap<K, V> :  
MutableIterable<MutableMap.MutableEntry<K, V>> {\n    val equality: EqualityComparator\n    val size: Int\n    operator fun contains(key: K): Boolean\n\n    operator fun get(key: K): V?\n    fun put(key: K, value: V): V?\n    fun remove(key: K): V?\n    fun clear():  
Unit\n\n    fun createJsMap(): dynamic {\n        val result = js("Object.create(null)")\n        // force to switch object  
representation to dictionary mode\n        result["foo"] = 1\n        jsDeleteProperty(result, "foo")\n        return  
result\n    }\n}\n", "/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of\n * this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n *\n */\n/*\n * Based on GWT InternalStringMap\n * Copyright 2008 Google Inc.\n */\npackage  
kotlin.collections\nimport kotlin.collections.MutableMap.MutableEntry\n/**\n * A simple wrapper around  
JavaScript Map for key type is string.\n * Though this map is instantiated only with K=String, the K type is not  
fixed to String statically,\n * because we want to have it erased to Any? in order not to  
generate type-safe override bridges for [get], [contains], [remove] etc, if they ever are generated.\n */\ninternal  
class InternalStringMap<K, V>(override val equality: EqualityComparator) : InternalMap<K, V> {\n    private var  
backingMap: dynamic = createJsMap()\n    override var size: Int = 0\n    private set\n    /**\n     * A mod  
count to track 'value' replacements in map to ensure that the 'value' that we have in the\n     * iterator entry is  
guaranteed to be still correct.\n     * This is to optimize for the common scenario where the values are not modified  
during\n     * iterations where the entries are never stale.\n     */\n    private var valueMod: Int = 0\n    override  
operator fun contains(key: K): Boolean {\n        if (key !is String) return false\n        return backingMap[key] !==  
undefined\n    }\n    override operator fun get(key: K): V? {\n        if (key !is String) return null\n        val value =  
backingMap[key]\n        return if (value  
!== undefined) value.unsafeCast<V>() else null\n    }\n    override fun put(key: K, value: V): V? {\n        require(key is String)\n        val oldValue = backingMap[key]\n        backingMap[key] = value\n        if (oldValue  
=== undefined) {\n            size++\n            structureChanged(host)\n            return null\n        } else {\n            valueMod++\n            return oldValue.unsafeCast<V>()\n        }\n    }\n    override fun remove(key: K): V? {\n        if (key !is String) return null\n        val value = backingMap[key]\n        if (value !== undefined) {\n            jsDeleteProperty(backingMap, key)\n            size--\n            structureChanged(host)\n            return  
value.unsafeCast<V>()\n        } else {\n            valueMod++\n            return null\n        }\n    }\n    override fun  
clear() {\n        backingMap = createJsMap()\n        size = 0\n    }\n    override fun iterator():  
MutableIterator<MutableEntry<K, V>> {\n        return object : MutableIterator<MutableEntry<K, V>> {\n            private val keys: Array<String> =  
js("Object").keys(backingMap)\n            private val iterator = keys.iterator()\n            private var lastKey: String? =  
null\n            override fun hasNext(): Boolean = iterator.hasNext()\n            override fun next():  
MutableEntry<K, V> {\n                val key = iterator.next()\n                lastKey = key\n                @Suppress("UNCHECKED_CAST")\n                return newMapEntry(key as K)\n            }\n            override  
fun remove() {\n                @Suppress("UNCHECKED_CAST")\n
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this@InternalStringMap.remove(checkNotNull(lastKey) as K)\n        }\n    }\n\n    private fun
newMapEntry(key: K): MutableEntry<K, V> = object : MutableEntry<K, V> {\n        override val key: K get() =
key\n        override val value: V get() = this@InternalStringMap[key].unsafeCast<V>()\n        override fun
setValue(newValue:
V): V = this@InternalStringMap.put(key, newValue).unsafeCast<V>()\n        override fun hashCode(): Int =
AbstractMap.entryHashCode(this)\n        override fun toString(): String = AbstractMap.entryToString(this)\n
override fun equals(other: Any?): Boolean = AbstractMap.entryEquals(this, other)\n    }\n}\n\n"/*\n * Copyright
2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n/*\n * Based on GWT
LinkedHashMap\n * Copyright 2008 Google Inc.\n */\npackage kotlin.collections\n\nimport
kotlin.collections.MutableMap.MutableEntry\n\n/**\n * Hash table based implementation of the [MutableMap]
interface, which additionally preserves the insertion order\n * of entries during the iteration.\n * The insertion
order is preserved by maintaining a doubly-linked list of all of its entries.\n */\npublic actual open class
LinkedHashMap<K, V> : HashMap<K,
V>, MutableMap<K, V> {\n\n    /**\n     * The entry we use includes next/prev pointers for a doubly-linked
circular\n     * list with a head node. This reduces the special cases we have to deal with\n     * in the list
operations.\n     * Note that we duplicate the key from the underlying hash map so we can find\n     * the eldest
entry. The alternative would have been to modify HashMap so more\n     * of the code was directly usable here, but
this would have added some\n     * overhead to HashMap, or to reimplement most of the HashMap code here with\n
     * small modifications. Paying a small storage cost only if you use\n     * LinkedHashMap and minimizing code size
seemed like a better tradeoff\n     */\n    private inner class ChainEntry<K, V>(key: K, value: V) :
AbstractMutableMap.SimpleEntry<K, V>(key, value) {\n        internal var next: ChainEntry<K, V>? = null\n
internal var prev: ChainEntry<K, V>? = null\n        override fun setValue(newValue: V): V {\n
            this@LinkedHashMap.checkIsMutable()\n            return super.setValue(newValue)\n        }\n    }\n\n    private inner class EntrySet : AbstractEntrySet<MutableEntry<K, V>, K, V>() {\n        private inner class
EntryIterator : MutableIterator<MutableEntry<K, V>> {\n            // The last entry that was returned from this
iterator.\n            private var last: ChainEntry<K, V>? = null\n            // The next entry to return from this
iterator.\n            private var next: ChainEntry<K, V>? = null\n            init {\n                next = head\n            }\n            recordLastKnownStructure(map, this)\n            override fun hasNext(): Boolean {\n                return
next != null\n            }\n            override fun next(): MutableEntry<K, V> {\n                checkStructuralChange(map, this)\n                if (!hasNext()) throw NoSuchElementException()\n                val
current = next!!\n                last = current\n                next = current.next.takeIf { it != head }\n                return current\n            }\n            override fun remove()\n            {\n                check(last != null)\n                this@EntrySet.checkIsMutable()\n            }\n            checkStructuralChange(map, this)\n            last!!.remove()\n            map.remove(last!!.key)\n            recordLastKnownStructure(map, this)\n            last = null\n        }\n    }\n\n    override fun add(element:
MutableEntry<K, V>): Boolean = throw UnsupportedOperationException("Add is not supported on entries")\n    override fun clear() {\n        this@LinkedHashMap.clear()\n    }\n    override fun containsEntry(element:
Map.Entry<K, V>): Boolean = this@LinkedHashMap.containsEntry(element)\n    override operator fun
iterator(): MutableIterator<MutableEntry<K, V>> = EntryIterator()\n    override fun removeEntry(element:
Map.Entry<K, V>): Boolean {\n        checkIsMutable()\n        if (contains(element)) {\n            this@LinkedHashMap.remove(element.key)\n            return true\n        }\n        return false\n    }\n\n    override val size: Int get() = this@LinkedHashMap.size\n\n    override
fun checkIsMutable(): Unit = this@LinkedHashMap.checkIsMutable()\n}\n\n"/*\n * The head of the insert
order chain, which is a doubly-linked circular\n * list.\n * The most recently inserted node is at the end of the
chain, ie.\n * chain.prev.\n */\nprivate var head: ChainEntry<K, V>? = null\n\n/**\n * Add this node to
the end of the chain.\n */\nprivate fun ChainEntry<K, V>.addToEnd() {\n    // This entry is not in the list.\n    check(next == null && prev == null)\n    val _head = head\n    if (_head == null) {\n        head = this\n    }\n}

```



```

        next = this\n        prev = this\n    } else {\n        // Chain is valid.\n        val _tail =
checkNotNull(_head.prev)\n
        // Update me.\n        prev = _tail\n        next = _head\n        // Update my new siblings: current head
and old tail\n        _head.prev = this\n        _tail.next = this\n    }\n}\n\n /**\n * Remove this node from
the chain it is a part of.\n */\n private fun ChainEntry<K, V>.remove() {\n    if (this.next === this) {\n
// if this is single element, remove head\n        head = null\n    } else {\n        if (head === this) {\n            //
if this is first element, move head to next\n            head = next\n        }\n        next!!.prev = prev\n
prev!!.next = next\n    }\n    next = null\n    prev = null\n }\n}\n\n /**\n * The hashmap that keeps track of
our entries and the chain. Note that we\n * duplicate the key here to eliminate changes to HashMap and minimize
the\n * code here, at the expense of additional space.\n */\n private
val map: HashMap<K, ChainEntry<K, V>>\n private var isReadOnly: Boolean = false\n\n /**\n *
Constructs an empty [LinkedHashMap] instance.\n */\n actual constructor() : super() {\n    map =
HashMap<K, ChainEntry<K, V>>()\n }\n\n internal constructor(backingMap: HashMap<K, Any>) : super() {\n
    @Suppress("UNCHECKED_CAST") // expected to work due to erasure\n    map = backingMap as
HashMap<K, ChainEntry<K, V>>\n }\n\n /**\n * Constructs an empty [LinkedHashMap] instance.\n */\n
* @param initialCapacity the initial capacity (ignored)\n * @param loadFactor the load factor (ignored)\n
*\n * @throws IllegalArgumentException if the initial capacity or load factor are negative\n */\n actual
constructor(initialCapacity: Int, loadFactor: Float) : super(initialCapacity, loadFactor) {\n    map = HashMap<K,
ChainEntry<K, V>>()\n }\n\n actual constructor(initialCapacity: Int) : this(initialCapacity, 0.0f)\n\n
/**\n * Constructs an instance of [LinkedHashMap] filled with the contents of the specified [original] map.\n
*\n * actual constructor(original: Map<out K, V>) {\n    map = HashMap<K, ChainEntry<K, V>>()\n
this.putAll(original)\n }\n\n @PublishedApi\n internal fun build(): Map<K, V> {\n    checkIsMutable()\n
isReadOnly = true\n    return this\n }\n\n actual override fun clear() {\n    checkIsMutable()\n
map.clear()\n    head = null\n }\n\n // override fun clone(): Any {\n //    return LinkedHashMap(this)\n //
}\n\n\n actual override fun containsKey(key: K): Boolean = map.containsKey(key)\n\n actual override fun
containsValue(value: V): Boolean {\n    var node: ChainEntry<K, V> = head ?: return false\n    do {\n        if
(node.value == value) {\n            return true\n        }\n        node = node.next!!\n    } while (node !==
head)\n    return false\n }\n\n\n internal override fun createEntrySet(): MutableSet<MutableMap.MutableEntry<K, V>> = EntrySet()\n\n actual
override operator fun get(key: K): V? = map.get(key)?.value\n\n actual override fun put(key: K, value: V): V? {\n
    checkIsMutable()\n    val old = map.get(key)\n    if (old == null) {\n        val newEntry =
ChainEntry(key, value)\n        map.put(key, newEntry)\n        newEntry.addToEnd()\n        return null\n
    } else {\n        return old.setValue(value)\n    }\n}\n\n actual override fun remove(key: K): V? {\n
    checkIsMutable()\n    val entry = map.remove(key)\n    if (entry != null) {\n        entry.remove()\n
return entry.value\n    }\n    return null\n }\n\n\n actual override val size: Int get() = map.size\n\n internal
override fun checkIsMutable() {\n    if (isReadOnly) throw UnsupportedOperationException()\n }\n}\n\n /**\n *
Constructs the specialized implementation
of [LinkedHashMap] with [String] keys, which stores the keys as properties of\n * JS object without hashing
them.\n */\n\n public fun <V> linkedStringMapOf(vararg pairs: Pair<String, V>): LinkedHashMap<String, V> {\n
return LinkedHashMap<String, V>(stringMapOf<Any>()).apply { putAll(pairs) }\n}\n\n", /*\n * Copyright 2010-
2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n /**\n * Based on GWT LinkedHashMap\n
*\n * Copyright 2008 Google Inc.\n */\n\n package kotlin.collections\n\n /**\n * The implementation of the [MutableSet]
interface, backed by a [LinkedHashMap] instance.\n */\n\n * This implementation preserves the insertion order of
elements during the iteration.\n */\n\n public actual open class LinkedHashMap<E> : HashSet<E>, MutableSet<E>
{\n\n    internal constructor(map: LinkedHashMap<E, Any>) : super(map)\n\n    /**\n     * Constructs a new empty
[LinkedHashSet].\n     */\n    actual constructor() : super(LinkedHashMap<E, Any>())\n\n    /**\n     * Constructs a
new [LinkedHashSet] filled with the elements of the specified collection.\n     */\n    actual constructor(elements:

```

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Collection<E> : super(LinkedHashMap<E, Any>()) {\n    addAll(elements)\n } \n\n /**\n * Constructs a
new empty [LinkedHashSet].\n * \n * @param initialCapacity the initial capacity (ignored)\n * @param
loadFactor the load factor (ignored)\n * \n * @throws IllegalArgumentException if the initial capacity or
load factor are negative\n * \n * actual constructor(initialCapacity: Int, loadFactor: Float) :
super(LinkedHashMap<E, Any>(initialCapacity, loadFactor))\n\n actual constructor(initialCapacity: Int) :
this(initialCapacity, 0.0f)\n\n @PublishedApi\n internal fun build(): Set<E> {\n    (map as
LinkedHashMap<E, Any>).build()\n    return this\n } \n\n internal override fun checkIsMutable():
Unit = map.checkIsMutable()\n\n// public override fun clone(): Any {\n//    return LinkedHashSet(this)\n//
}\n\n}\n\n/**\n * Creates a new instance of the specialized implementation of [LinkedHashSet] with the specified
[String] elements,\n * which elements the keys as properties of JS object without hashing them.\n * \n\npublic fun
linkedStringSetOf(vararg elements: String): LinkedHashSet<String> {\n    return
LinkedHashSet(linkedStringMapOf<Any>()).apply { addAll(elements) }\n}\n\n", /*\n * Copyright 2010-2020
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n * \n\npackage kotlin\n\nimport
kotlin.contracts.*\n\n\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@Deprecated(\"Synchronization on any
object is not supported in Kotlin/JS\",
ReplaceWith(\"run(block)\"))\n@kotlin.internal.InlineOnly\n@Suppress(\"UNUSED_PARAMETER\")\npublic
inline fun <R>
synchronized(lock: Any, block: () -> R): R {\n    contract {\n    callsInPlace(block,
InvocationKind.EXACTLY_ONCE)\n } \n    return block()\n}\n\n", /*\n * Copyright 2010-2018 JetBrains s.r.o. and
Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\n * \n\npackage kotlin.io\n\ninternal abstract class BaseOutput {\n
open fun println() {\n    print(\"\\n\")\n } \n\n open fun println(message: Any?) {\n    print(message)\n
println()\n } \n\n abstract fun print(message: Any?)\n\n open fun flush() { }\n\n\n/** JsName used to make the
declaration available outside of module to test it *\n\n@JsName(\"NodeJsOutput\")\n\ninternal class NodeJsOutput(val
outputStream: dynamic) : BaseOutput() {\n    override fun print(message: Any?) {\n    // TODO: Using local
variable because of bug in block decomposition lowering in IR backend\n    val messageString =
String(message)\n    outputStream.write(messageString)\n } \n\n}\n\n\n/** JsName used to make the declaration
available outside of module to test it *\n\n@JsName(\"OutputToConsoleLog\")\n\ninternal class OutputToConsoleLog
: BaseOutput() {\n    override fun print(message: Any?) {\n    console.log(message)\n } \n\n override fun
println(message: Any?) {\n    console.log(message)\n } \n\n override fun println() {\n    console.log(\"\\n\")\n
}\n\n}\n\n\n/** JsName used to make the declaration available outside of module to test it and use at try.kotl.in
*\n\n@JsName(\"BufferedOutput\")\n\ninternal open class BufferedOutput : BaseOutput() {\n    var buffer = \"\"\n\n
override fun print(message: Any?) {\n    buffer += String(message)\n } \n\n override fun flush() {\n    buffer
= \"\"\n } \n\n}\n\n\n/** JsName used to make the declaration available outside of module to test it
*\n\n@JsName(\"BufferedOutputToConsoleLog\")\n\ninternal class BufferedOutputToConsoleLog :
BufferedOutput() {\n    override fun print(message: Any?) {\n    var s = String(message)\n    val i =
s.nativeLastIndexOf(\"\\n\", 0)\n    if (i >= 0) {\n    buffer += s.substring(0, i)\n    flush()\n    s =
s.substring(i + 1)\n } \n\n    buffer += s\n } \n\n override fun flush() {\n    console.log(buffer)\n    buffer
= \"\"\n } \n\n}\n\n\n/** JsName used to make the declaration available outside of module to test it and use at
try.kotl.in *\n\n@JsName(\"output\")\n\ninternal var output = run {\n    val isNode: Boolean = js(\"typeof process !==
'undefined' && process.versions && !process.versions.node\")\n    if (isNode) NodeJsOutput(js(\"process.stdout\"))
else BufferedOutputToConsoleLog()\n}\n\n\n@kotlin.internal.InlineOnly\nprivate inline fun String(value: Any?):
String = js(\"String\")(value)\n\n\n/** Prints the line separator to the standard output stream. *\n\npublic actual fun
println() {\n    output.println()\n}\n\n\n/** Prints the
given [message] and the line separator to the standard output stream. *\n\npublic actual fun println(message: Any?)
{\n    output.println(message)\n}\n\n\n/** Prints the given [message] to the standard output stream. *\n\npublic actual
fun print(message: Any?) {\n    output.print(message)\n}\n\n\n@SinceKotlin(\"1.6\")\npublic actual fun readln():

```

```

String = throw UnsupportedOperationException("readln is not supported in
Kotlin/JS")\n\n@SinceKotlin("1.6")\npublic actual fun readlnOrNull(): String? = throw
UnsupportedOperationException("readlnOrNull is not supported in Kotlin/JS"), /*\n * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines\n\nimport
kotlin.coroutines.intrinsics.CoroutineSingletons.*\nimport
kotlin.coroutines.intrinsics.COROUTINE_SUSPENDED\n\n@PublishedApi\n@SinceKotlin("1.3")\ninternal
actual
class SafeContinuation<in T>\ninternal actual constructor(\n private val delegate: Continuation<T>,\n
initialResult: Any?)\n : Continuation<T> {\n @PublishedApi\n internal actual constructor(delegate:
Continuation<T>) : this(delegate, UNDECIDED)\n\n public actual override val context: CoroutineContext\n
get() = delegate.context\n\n private var result: Any? = initialResult\n\n public actual override fun
resumeWith(result: Result<T>) {\n val cur = this.result\n when {\n cur === UNDECIDED -> {\n
this.result = result.value\n }\n cur === COROUTINE_SUSPENDED -> {\n this.result =
RESUMED\n delegate.resumeWith(result)\n }\n else -> throw
IllegalStateException("Already resumed")\n }\n }\n\n @PublishedApi\n internal actual fun
getOrThrow(): Any? {\n if (result === UNDECIDED) {\n result = COROUTINE_SUSPENDED\n
return COROUTINE_SUSPENDED\n }\n val result = this.result\n return when {\n result ===
RESUMED -> COROUTINE_SUSPENDED // already called continuation, indicate COROUTINE_SUSPENDED
upstream\n result is Result.Failure -> throw result.exception\n else -> result // either
COROUTINE_SUSPENDED or data\n }\n }\n\n", /*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n */\n\npackage
kotlin.coroutines.cancellation\n\n@SinceKotlin("1.4")\npublic actual open class CancellationException :
IllegalStateException {\n actual constructor() : super()\n actual constructor(message: String?) : super(message)\n
constructor(message: String?, cause: Throwable?) : super(message, cause)\n constructor(cause: Throwable?) :
super(cause)\n}, /*\n * Copyright 2010-2018 JetBrains s.r.o.
and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license
that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines.js.internal\n\nimport
kotlin.coroutines.Continuation\nimport
kotlin.coroutines.EmptyCoroutineContext\n\n@PublishedApi\n@SinceKotlin("1.3")\ninternal val
EmptyContinuation = Continuation<Any?>(EmptyCoroutineContext) { result ->\n result.getOrThrow()\n}, /*\n
* Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code
is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
kotlin.js\n\n/**\n * Exposes the [Date API](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Date) to Kotlin.\n
*/\n\n@Suppress("NOT_DOCUMENTED")\npublic external class Date() {\n public constructor(milliseconds:
Number)\n\n public constructor(dateString: String)\n\n public constructor(year:
Int, month: Int)\n\n public constructor(year: Int, month: Int, day: Int)\n\n public constructor(year: Int, month:
Int, day: Int, hour: Int)\n\n public constructor(year: Int, month: Int, day: Int, hour: Int, minute: Int)\n\n public
constructor(year: Int, month: Int, day: Int, hour: Int, minute: Int, second: Int)\n\n public constructor(year: Int,
month: Int, day: Int, hour: Int, minute: Int, second: Int, millisecond: Number)\n\n public fun getDate(): Int\n\n
public fun getDay(): Int\n\n public fun getFullYear(): Int\n\n public fun getHours(): Int\n\n public fun
getMilliseconds(): Int\n\n public fun getMinutes(): Int\n\n public fun getMonth(): Int\n\n public fun
getSeconds(): Int\n\n public fun getTime(): Double\n\n public fun getTimezoneOffset(): Int\n\n public fun
getUTCDate(): Int\n\n public fun getUTCDay(): Int\n\n public fun getUTCFullYear(): Int\n\n public fun
getUTCHours(): Int\n\n public fun getUTCMilliseconds():

```



Element.hasClass(cssClass:

```
String): Boolean = this.newHasClass(cssClass)\n\n/**\n * Adds CSS class to element. Has no effect if all specified\n classes are already in class attribute of the element\n *\n * @return true if at least one class has been added\n *\n */\n\n@LowPriorityInOverloadResolution\n@Deprecated(\n    message = \"This API is moved to another package,\n use 'kotlinx.dom.addClass' instead.\",\n    replaceWith = ReplaceWith(\"this.addClass(cssClasses)\",\n \"kotlinx.dom.addClass\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\ninline fun\nElement.addClass(vararg cssClasses: String): Boolean = this.newAddClass(*cssClasses)\n\n/**\n * Removes all\n [cssClasses] from element. Has no effect if all specified classes are missing in class attribute of the element\n *\n * @return true if at least one class has been removed\n *\n */\n\n@LowPriorityInOverloadResolution\n@Deprecated(\n    message = \"This API is moved to another package, use 'kotlinx.dom.removeClass' instead.\",\n    replaceWith\n = ReplaceWith(\"this.removeClass(cssClasses)\",\n \"kotlinx.dom.removeClass\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\ninline\nfun Element.removeClass(vararg cssClasses: String): Boolean = this.newRemoveClass(*cssClasses)\n\n/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage\norg.w3c.dom.Element\nimport org.w3c.dom.Node\nimport\nkotlin.internal.LowPriorityInOverloadResolution\nimport kotlinx.dom.isElement as newIsElement\nimport\nkotlinx.dom.isText as newIsText\n\n/**\n * Gets a value indicating whether this node is a TEXT_NODE or a\n CDATA_SECTION_NODE.\n *\n */\n\n@LowPriorityInOverloadResolution\n@Deprecated(\n    message = \"This API\n is moved to another package, use 'kotlinx.dom.isText' instead.\",\n    replaceWith = ReplaceWith(\"this.isText\",\n \"kotlinx.dom.isText\")\n)\n@DeprecatedSinceKotlin(warningSince\n = \"1.4\", errorSince = \"1.6\")\npublic val Node.isText: Boolean\n    inline get() = this.newIsText\n\n/**\n * Gets a\n value indicating whether this node is an [Element].\n *\n */\n\n@LowPriorityInOverloadResolution\n@Deprecated(\n    message = \"This API\n is moved to another package, use 'kotlinx.dom.isElement' instead.\",\n    replaceWith =\n ReplaceWith(\"this.isElement\", \"kotlinx.dom.isElement\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic val Node.isElement: Boolean\n    inline get() = this.newIsElement\n\n/*\n * Copyright\n 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed\n by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage\norg.w3c.dom.events\n\npublic fun EventListener(handler: (Event) -> Unit): EventListener =\nEventListenerHandler(handler)\n\nprivate class EventListenerHandler(private val handler: (Event) ->\nUnit) : EventListener {\n    public override fun handleEvent(event: Event) {\n        handler(event)\n    }\n\n    public\n    override fun toString(): String = \"EventListenerHandler($handler)\"\n}\n\n/*\n * Copyright 2010-2018 JetBrains\n s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0\n license that can be found in the license/LICENSE.txt file.\n */\n\npackage org.w3c.dom\n\npublic external interface\nItemArrayLike<out T> {\n    val length: Int\n    fun item(index: Int): T?\n}\n\n/**\n * Returns the view of this\n `ItemArrayLike<T>` collection as `List<T>`\n *\n */\n\npublic fun <T> ItemArrayLike<T>.asList(): List<T> = object :\nAbstractList<T>() {\n    override val size: Int get() = this@asList.length\n\n    override fun get(index: Int): T = when\n(index) {\n        in 0..lastIndex -> this@asList.item(index).unsafeCast<T>()\n        else -> throw\nIndexOutOfBoundsException(\"index $index is not in range [0..$lastIndex]\")\n    }\n}\n\n/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code\n is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage\nkotlin.dom\nimport org.w3c.dom.Element\nimport org.w3c.dom.Node\nimport\nkotlin.internal.LowPriorityInOverloadResolution\nimport kotlinx.dom.appendText as newAppendText\nimport\nkotlinx.dom.clear as newClear\n\n/**\n * Removes all the children from this node.\n *\n */\n\n@LowPriorityInOverloadResolution\n@Deprecated(\n    message = \"This API\n is moved to another package, use 'kotlinx.dom.clear' instead.\",\n    replaceWith = ReplaceWith(\"this.clear()\",\n \"kotlinx.dom.clear\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic inline fun\nNode.clear() = this.newClear()\n\n/**\n * Creates text node and append it to the element.\n *\n * @return this\n */\n\n@LowPriorityInOverloadResolution\n@Deprecated(\n    message = \"This API\n is moved to another package, use 'kotlinx.dom.appendChild' instead.\",\n    replaceWith = ReplaceWith(\"this.appendChild(text)\",\n \"kotlinx.dom.appendChild\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic inline fun\nNode.appendChild(text: String) = this.newAppendText(text)\n\n/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0\n license that can be found in the license/LICENSE.txt file.\n */\n\npackage\nkotlin.dom\nimport org.w3c.dom.Element\nimport org.w3c.dom.Node\nimport\nkotlin.internal.LowPriorityInOverloadResolution\nimport kotlinx.dom.appendText as newAppendText\nimport\nkotlinx.dom.clear as newClear\n\n/**\n * Removes all the children from this node.\n *\n */\n\n@LowPriorityInOverloadResolution\n@Deprecated(\n    message = \"This API\n is moved to another package, use 'kotlinx.dom.clear' instead.\",\n    replaceWith = ReplaceWith(\"this.clear()\",\n \"kotlinx.dom.clear\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic inline fun\nNode.clear() = this.newClear()\n\n/**\n * Creates text node and append it to the element.\n *\n * @return this\n */\n\n@LowPriorityInOverloadResolution\n@Deprecated(\n    message = \"This API\n is moved to another package, use 'kotlinx.dom.appendChild' instead.\",\n    replaceWith = ReplaceWith(\"this.appendChild(text)\",\n \"kotlinx.dom.appendChild\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic inline fun\nNode.appendChild(text: String) = this.newAppendText(text)
```

```

element\n *\n@LowPriorityInOverloadResolution\n@Deprecated(\n  message = \"This API is moved to another
package,
use 'kotlinx.dom.appendText' instead.\",\n  replaceWith = ReplaceWith(\"this.appendText(text)\",
\"kotlinx.dom.appendText\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\ninline fun
Element.appendText(text: String): Element = this.newAppendText(text)\n\", /*\n * Copyright 2010-2018 JetBrains
s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0
license that can be found in the license/LICENSE.txt file.\n *\npackage kotlin.js\n\n**\n * Reinterprets this value
as a value of the [dynamic type](/docs/reference/dynamic-type.html).\n *\n@kotlin.internal.InlineOnly\npublic
inline fun Any?.asDynamic(): dynamic = this\n\n**\n * Reinterprets this value as a value of the specified type [T]
without any actual type checking.\n *\n@kotlin.internal.InlineOnly\npublic inline fun <T> Any?.unsafeCast():
@kotlin.internal.NoInfer T = this.asDynamic()\n\n**\n * Reinterprets this `dynamic` value as a value of
the specified type [T] without any actual type checking.\n
*\n@kotlin.internal.DynamicExtension\n@JsName(\"unsafeCastDynamic\")\n@kotlin.internal.InlineOnly\npublic
inline fun <T> dynamic.unsafeCast(): @kotlin.internal.NoInfer T = this\n\n**\n * Allows to iterate this `dynamic`
object in the following cases:\n * - when it has an `iterator` function,\n * - when it is an array\n * - when it is an
instance of [kotlin.collections.Iterable]\n *\n@kotlin.internal.DynamicExtension\npublic operator fun
dynamic.iterator(): Iterator<dynamic> {\n  val r: Any? = this\n\n  return when {\n    this[\"iterator\"] != null -
>\n      this[\"iterator\"]()\n    isArrayish(r) ->\n      r.unsafeCast<Array<*>>().iterator()\n    else ->\n
(r as Iterable<*>).iterator()\n  }\n}\n\", /*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt
file.\n *\npackage kotlin.collections\n\n**\n * Groups elements from the [Grouping] source by key and counts elements
in each group.\n *\n * @return a [Map] associating the key of
each group with the count of elements in the group.\n *\n * @sample
samples.collections.Grouping.groupingByEachCount\n *\n@SinceKotlin(\"1.1\")\npublic actual fun <T, K>
Grouping<T, K>.eachCount(): Map<K, Int> =\n  fold(0) { acc, _ -> acc + 1 }\n\n**\n * Groups elements from
the [Grouping] source by key and sums values provided by the [valueSelector] function for elements in each
group.\n *\n * @return a [Map] associating the key of each group with the count of element in the group.\n
*\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K> Grouping<T, K>.eachSumOf(valueSelector: (T) -> Int):
Map<K, Int> =\n  fold(0) { acc, e -> acc + valueSelector(e) }\n\n**\n * Copyright 2010-2018 JetBrains s.r.o.
and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license
that can be found in the license/LICENSE.txt file.\n
*\n@file:kotlin.jvm.JvmName(\"GroupingKt\")\n@file:kotlin.jvm.JvmMultifileClass\n\npackage
kotlin.collections\n\n**\n
* Represents a source of elements with a [keyOf] function, which can be applied to each element to get its key.\n
*\n * A [Grouping] structure serves as an intermediate step in group-and-fold operations:\n * they group elements by
their keys and then fold each group with some aggregating operation.\n *\n * It is created by attaching `keySelector:
(T) -> K` function to a source of elements.\n * To get an instance of [Grouping] use one of `groupingBy` extension
functions:\n * - [Iterable.groupingBy]\n * - [Sequence.groupingBy]\n * - [Array.groupingBy]\n * -
[CharSequence.groupingBy]\n *\n * For the list of group-and-fold operations available, see the [extension

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functions](#extension-functions) for `Grouping`.
\n *^@SinceKotlin("1.1")\npublic interface Grouping<T, out K>
{\n  /** Returns an [Iterator] over the elements of the source of this grouping. */
\n  fun sourceIterator():
Iterator<T>\n  /** Extracts the key of an [element]. */
\n  fun keyOf(element: T): K\n}\n\n/**
 * Groups elements from the [Grouping] source by key and applies [operation] to the elements of each group
sequentially,
\n * passing the previously accumulated value and the current element as arguments, and stores the
results in a new map.
\n * The key for each element is provided by the [Grouping.keyOf] function.
\n *
\n * @param operation function is invoked on each element with the following parameters:
\n * - `key`: the key of the group this element belongs to;
\n * - `accumulator`: the current value of the accumulator of the group, can be `null`
if it's the first `element` encountered in the group;
\n * - `element`: the element from the source being aggregated;
\n * - `first`: indicates whether it's the first `element` encountered in the group.
\n *
\n * @return a [Map] associating
the key of each group with the result of aggregation of the group elements.
\n *
\n * @sample
samples.collections.Grouping.aggregateByRadix
\n *^@SinceKotlin("1.1")\npublic inline fun <T, K, R>
Grouping<T,
K>.aggregate(\n  operation: (key: K, accumulator: R?, element: T, first: Boolean) -> R): Map<K, R> {\n  return
aggregateTo(mutableMapOf<K, R>(), operation)\n}\n\n/**
 * Groups elements from the [Grouping] source by key
and applies [operation] to the elements of each group sequentially,
\n * passing the previously accumulated value and
the current element as arguments,
\n * and stores the results in the given [destination] map.
\n * The key for each
element is provided by the [Grouping.keyOf] function.
\n *
\n * @param operation a function that is invoked on each
element with the following parameters:
\n * - `key`: the key of the group this element belongs to;
\n * -
`accumulator`: the current value of the accumulator of the group, can be `null` if it's the first `element`
encountered
in the group;
\n * - `element`: the element from the source being aggregated;
\n * - `first`: indicates whether it's the
first `element` encountered in the group.
\n *
\n * If the [destination] map
already has a value corresponding to some key,
\n * then the elements being aggregated for that key are never
considered as `first`.
\n *
\n * @return the [destination] map associating the key of each group with the result of
aggregation of the group elements.
\n *
\n * @sample samples.collections.Grouping.aggregateByRadixTo
\n *^@SinceKotlin("1.1")\npublic inline fun <T, K, R, M : MutableMap<in K, R>> Grouping<T,
K>.aggregateTo(\n  destination: M,
\n  operation: (key: K, accumulator: R?, element: T, first: Boolean) -> R): M
{\n  for (e in this.sourceIterator()) {\n    val key = keyOf(e)\n    val accumulator = destination[key]\n
destination[key] = operation(key, accumulator, e, accumulator == null && !destination.containsKey(key))\n  }\n
return destination\n}\n\n/**
 * Groups elements from the [Grouping] source by key and applies [operation] to the
elements of each group sequentially,
\n * passing the previously accumulated value and the current element as
arguments,
\n * and stores the results in a new map.
\n * An initial value of accumulator is provided by [initialValueSelector]
function.
\n *
\n * @param initialValueSelector a function that provides an initial value of accumulator for each
group.
\n * It's invoked with parameters:
\n * - `key`: the key of the group;
\n * - `element`: the first element being
encountered in that group.
\n *
\n * @param operation a function that is invoked on each element with the following
parameters:
\n * - `key`: the key of the group this element belongs to;
\n * - `accumulator`: the current value of the
accumulator of the group;
\n * - `element`: the element from the source being accumulated.
\n *
\n * @return a [Map]
associating the key of each group with the result of accumulating the group elements.
\n *
\n * @sample
samples.collections.Grouping.foldByEvenLengthWithComputedInitialValue
\n *^@SinceKotlin("1.1")\npublic
inline fun <T, K, R> Grouping<T, K>.fold(\n  initialValueSelector: (key: K, element: T) -> R,
\n  operation: (key: K, accumulator: R, element: T) -> R): Map<K, R> =\n
@Suppress("UNCHECKED_CAST")\n  aggregate { key, acc, e, first -> operation(key, if (first)
initialValueSelector(key, e) else acc as R, e) }\n\n/**
 * Groups elements from the [Grouping] source by key and
applies [operation] to the elements of each group sequentially,
\n * passing the previously accumulated value and the
current element as arguments,
\n * and stores the results in the given [destination] map.
\n * An initial value of
accumulator is provided by [initialValueSelector] function.
\n *
\n * @param initialValueSelector a function that
provides an initial value of accumulator for each group.
\n * It's invoked with parameters:
\n * - `key`: the key of the

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group;\n \* - `element`: the first element being encountered in that group.\n \*\n \* If the [destination] map already has a value corresponding to some key, that value is used as an initial value of\n \* the accumulator for that group and the [initialValueSelector]

function is not called for that group.\n \*\n \* @param operation a function that is invoked on each element with the following parameters:\n \* - `key`: the key of the group this element belongs to;\n \* - `accumulator`: the current value of the accumulator of the group;\n \* - `element`: the element from the source being accumulated.\n \*\n \* @return the [destination] map associating the key of each group with the result of accumulating the group elements.\n \* @sample samples.collections.Grouping.foldByEvenLengthWithComputedInitialValueTo

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*\n@SinceKotlin("1.1")\npublic inline fun <T, K, R, M : MutableMap<in K, R>> Grouping<T, K>.foldTo(\n
destination: M,\n initialValueSelector: (key: K, element: T) -> R,\n operation: (key: K, accumulator: R, element: T) -> R\n): M =\n @Suppress("UNCHECKED_CAST")\n aggregateTo(destination) { key, acc, e, first ->
operation(key, if (first) initialValueSelector(key, e) else acc as R, e) }\n\n\n**\n * Groups elements from the [Grouping] source by key and applies [operation] to the elements of each group sequentially,\n * passing the previously accumulated value and the current element as arguments, and stores the results in a new map.\n * An initial value of accumulator is the same [initialValue] for each group.\n *\n * @param operation a function that is invoked on each element with the following parameters:\n * - `accumulator`: the current value of the accumulator of the group;\n * - `element`: the element from the source being accumulated.\n *\n * @return a [Map] associating the key of each group with the result of accumulating the group elements.\n * @sample samples.collections.Grouping.foldByEvenLengthWithConstantInitialValue
*\n@SinceKotlin("1.1")\npublic inline fun <T, K, R> Grouping<T, K>.fold(\n initialValue: R,\n operation: (accumulator: R, element: T) -> R\n): Map<K, R> =\n @Suppress("UNCHECKED_CAST")\n aggregate { _, acc, e, first -> operation(if (first) initialValue else
acc as R, e) }\n\n\n**\n * Groups elements from the [Grouping] source by key and applies [operation] to the elements of each group sequentially,\n * passing the previously accumulated value and the current element as arguments,\n * and stores the results in the given [destination] map.\n * An initial value of accumulator is the same [initialValue] for each group.\n *\n * If the [destination] map already has a value corresponding to the key of some group,\n * that value is used as an initial value of the accumulator for that group.\n *\n * @param operation a function that is invoked on each element with the following parameters:\n * - `accumulator`: the current value of the accumulator of the group;\n * - `element`: the element from the source being accumulated.\n *\n * @return the [destination] map associating the key of each group with the result of accumulating the group elements.\n * @sample samples.collections.Grouping.foldByEvenLengthWithConstantInitialValueTo
*\n@SinceKotlin("1.1")\npublic inline fun <T, K, R, M : MutableMap<in K, R>> Grouping<T, K>.foldTo(\n destination: M,\n initialValue: R,\n operation: (accumulator: R, element: T) -> R\n): M =\n @Suppress("UNCHECKED_CAST")\n aggregateTo(destination) { _, acc, e, first -> operation(if (first) initialValue else acc as R, e) }\n\n\n**\n * Groups elements from the [Grouping] source by key and applies the reducing [operation] to the elements of each group\n * sequentially starting from the second element of the group,\n * passing the previously accumulated value and the current element as arguments,\n * and stores the results in a new map.\n * An initial value of accumulator is the first element of the group.\n *\n * @param operation a function that is invoked on each subsequent element of the group with the following parameters:\n * - `key`: the key of the group this element belongs to;\n * - `accumulator`: the current value of the accumulator of the group;\n * - `element`: the element from the source being accumulated.\n *\n * @return a [Map] associating the key of each group with the result of accumulating the group elements.\n * @sample samples.collections.Grouping.reduceByMaxVowels
*\n@SinceKotlin("1.1")\npublic inline fun <S, T : S, K> Grouping<T, K>.reduce(\n operation: (key: K, accumulator: S, element: T) -> S\n): Map<K, S> =\n aggregate { key, acc, e, first ->\n @Suppress("UNCHECKED_CAST")\n if (first) e else operation(key, acc as S, e) }\n\n\n**\n * Groups elements from the [Grouping] source by key and applies the reducing [operation] to the elements of each group\n * sequentially starting from the second element of the group,\n * passing the previously accumulated value and the

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* } \n * ``\n * \n * will be generated:\n * ``js\n * function test(j, p, newValue) {\n * j["prop"] =
1;\n * j[p] = newValue;\n * }\n * }\n * ``\n * \n operator fun set(propertyName: String, value:
Any?): Unit\n}\n\n/**\n * Returns a simple JavaScript object (as [Json]) using provided key-value pairs as names
and values of its properties.\n */\npublic fun json(vararg pairs: Pair<String, Any?>): Json {\n val res: dynamic =
js("{}")\n for ((name, value) in pairs) {\n res[name] = value\n }\n return res\n}\n\n/**\n * Adds key-
value pairs from [other] to [this].\n * Returns the original receiver.\n */\npublic fun Json.add(other: Json): Json {\n
val keys: Array<String> = js("Object").keys(other)\n for (key in keys) {\n if
(other.asDynamic().hasOwnProperty(key)) {\n this[key] = other[key];\n }\n }\n return
this\n}\n\n/**\n * Exposes the JavaScript [JSON object](https://developer.mozilla.org/en-
US/docs/Web/JavaScript/Reference/Global_Objects/JSON) to Kotlin.\n
*\n@Suppress("NOT_DOCUMENTED")\npublic external object JSON {\n public fun stringify(o: Any?):
String\n public fun stringify(o: Any?, replacer: ((key: String,
value: Any?) -> Any?): String\n public fun stringify(o: Any?, replacer: ((key: String, value: Any?) -> Any?)? =
definedExternally, space: Int): String\n public fun stringify(o: Any?, replacer: ((key: String, value: Any?) ->
Any?)? = definedExternally, space: String): String\n public fun stringify(o: Any?, replacer: Array<String>):
String\n public fun stringify(o: Any?, replacer: Array<String>, space: Int): String\n public fun stringify(o: Any?,
replacer: Array<String>, space: String): String\n\n public fun <T> parse(text: String): T\n public fun <T>
parse(text: String, reviver: ((key: String, value: Any?) -> Any?): T)\n}\n\n"/*\n * Copyright 2010-2021 JetBrains
s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0
license that can be found in the license/LICENSE.txt file.\n */\npackage kotlin.math\n\nimport
kotlin.internal.InlineOnly\nimport kotlin.js.JsMath as nativeMath\n\n// region =====
Double Math =====\n\n/**\n * Computes the sine of the angle [x]
given in radians.\n * \n * Special cases:\n * - `sin(NaN|+Inf|-Inf)` is `NaN`\n
*\n@SinceKotlin("1.2")\n@InlineOnly\npublic actual inline fun sin(x: Double): Double =
nativeMath.sin(x)\n\n/**\n * Computes the cosine of the angle [x] given in radians.\n * \n * Special cases:\n * -
`cos(NaN|+Inf|-Inf)` is `NaN`\n * \n@SinceKotlin("1.2")\n@InlineOnly\npublic actual inline fun cos(x: Double):
Double = nativeMath.cos(x)\n\n/**\n * Computes the tangent of the angle [x] given in radians.\n * \n * Special cases:\n
* - `tan(NaN|+Inf|-Inf)` is `NaN`\n * \n@SinceKotlin("1.2")\n@InlineOnly\npublic actual inline fun tan(x:
Double): Double = nativeMath.tan(x)\n\n/**\n * Computes the arc sine of the value [x];\n * the returned value is an
angle in the range from `-PI/2` to `PI/2` radians.\n * \n * Special cases:\n * - `asin(x)` is `NaN`, when `abs(x) > 1`
or x is `NaN`\n * \n@SinceKotlin("1.2")\n@InlineOnly\npublic
actual inline fun asin(x: Double): Double = nativeMath.asin(x)\n\n/**\n * Computes the arc cosine of the value
[x];\n * the returned value is an angle in the range from `0.0` to `PI` radians.\n * \n * Special cases:\n * - `acos(x)`
is `NaN`, when `abs(x) > 1` or x is `NaN`\n * \n@SinceKotlin("1.2")\n@InlineOnly\npublic actual inline fun
acos(x: Double): Double = nativeMath.acos(x)\n\n/**\n * Computes the arc tangent of the value [x];\n * the returned
value is an angle in the range from `-PI/2` to `PI/2` radians.\n * \n * Special cases:\n * - `atan(NaN)` is `NaN`\n
*\n@SinceKotlin("1.2")\n@InlineOnly\npublic actual inline fun atan(x: Double): Double =
nativeMath.atan(x)\n\n/**\n * Returns the angle `theta` of the polar coordinates `(r, theta)` that correspond\n * to the
rectangular coordinates `(x, y)` by computing the arc tangent of the value [y] / [x];\n * the returned value is an angle
in the range from `-PI` to `PI` radians.\n * \n * Special cases:\n *
- `atan2(0.0, 0.0)` is `0.0`\n * - `atan2(0.0, x)` is `0.0` for `x > 0` and `PI` for `x < 0`\n * - `atan2(-0.0, x)` is
`-0.0` for `x > 0` and `-PI` for `x < 0`\n * - `atan2(y, +Inf)` is `0.0` for `0 < y < +Inf` and `-0.0` for
`-Inf < y < 0`\n * - `atan2(y, -Inf)` is `PI` for `0 < y < +Inf` and `-PI` for `-Inf < y < 0`\n * - `atan2(y, 0.0)` is
`PI/2` for `y > 0` and
`-PI/2` for `y < 0`\n * - `atan2(+Inf, x)` is `PI/2` for finite `x` y\n * - `atan2(-Inf, x)` is `-PI/2` for finite `x`\n * -
`atan2(NaN, x)` and `atan2(y, NaN)` is `NaN`\n * \n@SinceKotlin("1.2")\n@InlineOnly\npublic actual inline fun
atan2(y: Double, x: Double): Double = nativeMath.atan2(y, x)\n\n/**\n * Computes the hyperbolic sine of the value
[x].\n * \n * Special cases:\n * - `sinh(NaN)` is `NaN`\n * - `sinh(+Inf)` is `+Inf`\n * - `sinh(-Inf)` is
`-Inf`\n * \n@SinceKotlin("1.2")\n@InlineOnly\npublic actual inline fun sinh(x: Double): Double =

```

`nativeMath.sinh(x)` Computes the hyperbolic cosine of the value `[x]`.  
 Special cases: `sinh(NaN)` is `NaN`, `sinh(+Inf)` is `+Inf`, `sinh(-Inf)` is `-Inf`.  
`@SinceKotlin("1.2")` `@InlineOnly` `public actual inline fun cosh(x: Double): Double =`  
`nativeMath.cosh(x)` Computes the hyperbolic tangent of the value `[x]`.  
 Special cases: `tanh(NaN)` is `NaN`, `tanh(+Inf)` is `1.0`, `tanh(-Inf)` is `-1.0`.  
`@SinceKotlin("1.2")` `@InlineOnly` `public actual inline fun tanh(x: Double): Double =`  
`nativeMath.tanh(x)` Computes the inverse hyperbolic sine of the value `[x]`. The returned value is `y` such that `sinh(y) == x`.  
 Special cases: `asinh(NaN)` is `NaN`, `asinh(+Inf)` is `+Inf`, `asinh(-Inf)` is `-Inf`.  
`@SinceKotlin("1.2")` `@InlineOnly` `public actual inline fun asinh(x: Double): Double =`  
`nativeMath.asinh(x)` Computes the inverse hyperbolic cosine of the value `[x]`. The returned value is positive `y` such that `cosh(y) == x`.  
 Special cases: `acosh(NaN)` is `NaN`, `acosh(x)` is `NaN` when `x < 1`, `acosh(+Inf)` is `+Inf`.  
`@SinceKotlin("1.2")` `@InlineOnly` `public actual inline fun acosh(x: Double): Double =`  
`nativeMath.acosh(x)` Computes the inverse hyperbolic tangent of the value `[x]`. The returned value is `y` such that `tanh(y) == x`.  
 Special cases: `atanh(NaN)` is `NaN`, `atanh(x)` is `NaN` when `x > 1` or `x < -1`, `atanh(1.0)` is `+Inf`, `atanh(-1.0)` is `-Inf`.  
`@SinceKotlin("1.2")` `@InlineOnly` `public actual inline fun atanh(x: Double): Double =`  
`nativeMath.atanh(x)` Computes `sqrt(x^2 + y^2)` without intermediate overflow or underflow.  
 Special cases: returns `+Inf` if any of arguments is infinite, returns `NaN` if any of arguments is `NaN` and the other is not infinite.  
`@SinceKotlin("1.2")` `@InlineOnly` `public actual inline fun hypot(x: Double, y: Double): Double =`  
`nativeMath.hypot(x, y)` Computes the positive square root of the value `[x]`.  
 Special cases: `sqrt(x)` is `NaN` when `x < 0` or `x` is `NaN`.  
`@SinceKotlin("1.2")` `@InlineOnly` `public actual inline fun sqrt(x: Double): Double =`  
`nativeMath.sqrt(x)` Computes Euler's number `e` raised to the power of the value `[x]`.  
 Special cases: `exp(NaN)` is `NaN`, `exp(+Inf)` is `+Inf`, `exp(-Inf)` is `0.0`.  
`@SinceKotlin("1.2")` `@InlineOnly` `public actual inline fun exp(x: Double): Double =`  
`nativeMath.exp(x)` Computes `exp(x) - 1`. This function can be implemented to produce more precise result for `[x]` near zero.  
 Special cases: `expm1(NaN)` is `NaN`, `expm1(+Inf)` is `+Inf`, `expm1(-Inf)` is `-1.0`.  
`@see [exp]` function.  
`@SinceKotlin("1.2")` `@InlineOnly` `public actual inline fun expm1(x: Double): Double =`  
`nativeMath.expm1(x)` Computes the logarithm of the value `[x]` to the given `[base]`.  
 Special cases: `log(x, b)` is `NaN` if either `x` or `b` are `NaN`, `log(x, b)` is `NaN` when `x < 0` or `b <= 0` or `b == 1.0`, `log(+Inf, +Inf)` is `NaN`, `log(+Inf, b)` is `+Inf` for `b > 1` and `-Inf` for `b < 1`, `log(0.0, b)` is `-Inf` for `b > 1` and `+Inf` for `b > 1`.  
 See also logarithm functions for common fixed bases: `[ln]`, `[log10]` and `[log2]`.  
`@SinceKotlin("1.2")` `public actual fun log(x: Double, base: Double): Double {`  
     if (base <= 0.0 || base == 1.0) return Double.NaN  
     return  
`nativeMath.log(x) / nativeMath.log(base)}`  
`nativeMath.log(x)` Computes the natural logarithm (base `E`) of the value `[x]`.  
 Special cases: `ln(NaN)` is `NaN`, `ln(x)` is `NaN` when `x < 0.0`, `ln(+Inf)` is `+Inf`, `ln(0.0)` is `-Inf`.  
`@SinceKotlin("1.2")` `@InlineOnly` `public actual inline fun ln(x: Double): Double =`  
`nativeMath.log(x)` Computes the common logarithm (base 10) of the value `[x]`.  
`@see [ln]` function for special cases.  
`@SinceKotlin("1.2")` `@InlineOnly` `public actual inline fun log10(x: Double): Double =`  
`nativeMath.log10(x)` Computes the binary logarithm (base 2) of the value `[x]`.  
`@see [ln]` function for special cases.  
`@SinceKotlin("1.2")` `@InlineOnly` `public actual inline fun log2(x: Double): Double =`  
`nativeMath.log2(x)` Computes `ln(x + 1)`. This function can be implemented to produce more precise result for `[x]` near zero.  
 Special cases: `ln1p(NaN)` is `NaN`, `ln1p(x)` is `NaN` where `x < -1.0`, `ln1p(-1.0)` is `-Inf`, `ln1p(+Inf)` is `+Inf`.  
`@see [ln]` function  
`@see [expm1]` function.  
`@SinceKotlin("1.2")` `@InlineOnly` `public actual inline fun ln1p(x: Double): Double =`  
`nativeMath.log1p(x)` Rounds the given value `[x]` to an integer towards positive infinity.  
`@return the`

smallest double value that is greater

than or equal to the given value [x] and is a mathematical integer.  
Special cases:  $\text{ceil}(x)$  is  $x$  where  $x$  is  $\text{NaN}$  or  $+\text{Inf}$  or  $-\text{Inf}$  or already a mathematical integer.

```
*\n@SinceKotlin("1.2")\n@InlineOnly\npublic actual inline fun ceil(x: Double): Double =
```

```
nativeMath.ceil(x)\n\n/**\n * Rounds the given value [x] to an integer towards negative infinity.\n * @return the largest double value that is smaller than or equal to the given value [x] and is a mathematical integer.\n * Special cases:  $\text{ceil}(x)$  is  $x$  where  $x$  is  $\text{NaN}$  or  $+\text{Inf}$  or  $-\text{Inf}$  or already a mathematical integer.
```

```
*\n@SinceKotlin("1.2")\n@InlineOnly\npublic actual inline fun floor(x: Double): Double =
```

```
nativeMath.floor(x)\n\n/**\n * Rounds the given value [x] to an integer towards zero.\n * @return the value [x] having its fractional part truncated.\n * Special cases:  $\text{floor}(x)$  is  $x$  where  $x$  is  $\text{NaN}$  or  $+\text{Inf}$  or  $-\text{Inf}$  or already a mathematical integer.
```

```
*\n@SinceKotlin("1.2")\n@InlineOnly\npublic actual inline fun truncate(x: Double): Double =
```

```
nativeMath.trunc(x)\n\n/**\n * Rounds the given value [x] towards the closest integer with ties rounded towards even integer.\n * Special cases:  $\text{truncate}(x)$  is  $x$  where  $x$  is  $\text{NaN}$  or  $+\text{Inf}$  or  $-\text{Inf}$  or already a mathematical integer.
```

```
*\n@SinceKotlin("1.2")\npublic actual fun round(x: Double): Double {\n    if (x % 0.5 != 0.0) {\n        return nativeMath.round(x)\n    }\n    val floor = floor(x)\n    return if (floor % 2 == 0.0) floor else ceil(x)\n}\n\n/**\n * Returns the absolute value of the given value [x].\n * Special cases:  $\text{abs}(\text{NaN})$  is  $\text{NaN}$ \n * @see absoluteValue extension property for [Double]
```

```
*\n@SinceKotlin("1.2")\n@InlineOnly\npublic actual inline fun abs(x: Double): Double =
```

```
nativeMath.abs(x)\n\n/**\n * Returns the sign of the given value [x]:  $-1.0$  if the value is negative,  $0.0$  if the value is zero,  $1.0$  if
```

```
the value is positive\n * Special case:  $\text{sign}(\text{NaN})$  is  $\text{NaN}$ 
```

```
*\n@SinceKotlin("1.2")\n@InlineOnly\npublic actual inline fun sign(x: Double): Double =
```

```
nativeMath.sign(x)\n\n/**\n * Returns the smaller of two values.\n * If either value is  $\text{NaN}$ , then the result is  $\text{NaN}$ .
```

```
*\n@SinceKotlin("1.2")\n@InlineOnly\npublic actual inline fun min(a: Double, b: Double): Double =
```

```
nativeMath.min(a, b)\n\n/**\n * Returns the greater of two values.\n * If either value is  $\text{NaN}$ , then the result is  $\text{NaN}$ .
```

```
*\n@SinceKotlin("1.2")\n@InlineOnly\npublic actual inline fun max(a: Double, b: Double): Double =
```

```
nativeMath.max(a, b)\n\n// extensions\n\n/**\n * Raises this value to the power [x].\n * Special cases:  $\text{pow}(0.0)$  is  $1.0$ ,  $\text{pow}(1.0) == b$ ,  $\text{pow}(\text{NaN})$  is  $\text{NaN}$ ,  $\text{NaN}.\text{pow}(x)$  is  $\text{NaN}$  for  $x != 0.0$ ,  $\text{pow}(\text{Inf})$  is  $\text{NaN}$  for  $\text{abs}(b) == 1.0$ ,  $\text{pow}(x)$  is  $\text{NaN}$  for  $b < 0$  and  $x$  is finite and not an integer
```

```
*\n@SinceKotlin("1.2")\n@InlineOnly\npublic actual inline fun Double.pow(x: Double): Double = nativeMath.pow(this, x)\n\n/**\n * Raises this value to the integer power [n].\n * See the other overload of [pow] for details.
```

```
*\n@SinceKotlin("1.2")\n@InlineOnly\npublic actual inline fun Double.pow(n: Int): Double =
```

```
nativeMath.pow(this, n.toDouble())\n\n/**\n * Returns the absolute value of this value.\n * Special cases:  $\text{NaN}.\text{absoluteValue}$  is  $\text{NaN}$ \n * @see abs function
```

```
*\n@SinceKotlin("1.2")\n@InlineOnly\npublic actual inline val Double.absoluteValue: Double get() = nativeMath.abs(this)\n\n/**\n * Returns the sign of this value:  $-1.0$  if the value is negative,  $0.0$  if the value is zero,  $1.0$  if the value is positive\n * Special case:  $\text{NaN}.\text{sign}$  is  $\text{NaN}$ 
```

```
*\n@SinceKotlin("1.2")\n@InlineOnly\npublic actual inline val Double.sign: Double get() = nativeMath.sign(this)\n\n/**\n * Returns this value with the sign bit same as of the [sign] value.
```

```
*\n@SinceKotlin("1.2")\n@InlineOnly\npublic actual inline fun Double.withSign(sign: Int): Double = this.withSign(sign.toDouble())\n\n/**\n * Returns the ulp (unit in the last place) of this value.\n * An ulp is a positive distance between this value and the next nearest [Double] value larger in magnitude.\n * Special Cases:  $\text{NaN}.\text{ulp}$  is  $\text{NaN}$ ,  $x.\text{ulp}$  is  $+\text{Inf}$  when  $x$  is  $+\text{Inf}$  or  $-\text{Inf}$ ,  $0.0.\text{ulp}$  is  $\text{Double}.\text{MIN\_VALUE}$ 
```

```
*\n@SinceKotlin("1.2")\npublic actual val Double.ulp: Double get() = when {\n    this < 0 -> (-this).ulp\n    this.isNaN() || this == Double.POSITIVE_INFINITY -> this\n    this == Double.MAX_VALUE -> this - this.nextDown()\n    else -> this.nextUp() - this\n}\n\n/**\n * Returns the [Double] value nearest to this value in direction of positive infinity.
```

```

Double.nextUp(): Double = when {
    this.isNaN() || this == Double.POSITIVE_INFINITY -> this
    this == 0.0 -> Double.MIN_VALUE
    else -> Double.fromBits(this.toRawBits() + if (this > 0) 1 else -1)
}
Returns the [Double] value nearest to this value in direction of negative infinity.

@SinceKotlin("1.2")
public actual fun Double.nextDown(): Double = when {
    this.isNaN() || this == Double.NEGATIVE_INFINITY -> this
    this == 0.0 -> -Double.MIN_VALUE
    else -> Double.fromBits(this.toRawBits() + if (this > 0) -1 else 1)
}
Returns the [Double] value nearest to this value in direction from this value towards the value [to].
Special cases:
    - `x.nextTowards(y)` is `NaN` if either `x` or `y` are `NaN`
    - `x.nextTowards(x) == x`

@SinceKotlin("1.2")
public actual fun Double.nextTowards(to: Double): Double = when {
    this.isNaN() || to.isNaN() -> Double.NaN
    to == this -> to
    to > this -> this.nextUp()
    else /* to < this */ -> this.nextDown()
}
Rounds this [Double] value to the nearest integer and converts the result to [Int].
Ties are rounded towards positive infinity.
Special cases:
    - `x.roundToInt() == Int.MAX_VALUE` when `x > Int.MAX_VALUE`
    - `x.roundToInt() == Int.MIN_VALUE` when `x < Int.MIN_VALUE`
    - @throws IllegalArgumentException when this value is `NaN`

@SinceKotlin("1.2")
public actual fun Double.roundToInt(): Int = when {
    isNaN() -> throw IllegalArgumentException("Cannot round NaN value.")
    this > Int.MAX_VALUE -> Int.MAX_VALUE
    this < Int.MIN_VALUE -> Int.MIN_VALUE
    else -> nativeMath.round(this).toInt()
}
Rounds this [Double] value to the nearest integer and converts the result to [Long].
Ties are rounded towards positive infinity.
Special cases:
    - `x.roundToLong() == Long.MAX_VALUE` when `x > Long.MAX_VALUE`
    - `x.roundToLong() == Long.MIN_VALUE` when `x < Long.MIN_VALUE`
    - @throws IllegalArgumentException when this value is `NaN`

@SinceKotlin("1.2")
public actual fun Double.roundToLong(): Long = when {
    isNaN() -> throw IllegalArgumentException("Cannot round NaN value.")
    this > Long.MAX_VALUE -> Long.MAX_VALUE
    this < Long.MIN_VALUE -> Long.MIN_VALUE
    else -> nativeMath.round(this).toLong()
}

// endregion

===== Float Math =====
Computes the sine of the angle [x] given in radians.
Special cases:
    - `sin(NaN|+Inf|-Inf)` is `NaN`

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun sin(x: Float): Float = nativeMath.sin(x.toDouble()).toFloat()
Computes the cosine of the angle [x] given in radians.
Special cases:
    - `cos(NaN|+Inf|-Inf)` is `NaN`

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun cos(x: Float): Float = nativeMath.cos(x.toDouble()).toFloat()
Computes the tangent of the angle [x] given in radians.
Special cases:
    - `tan(NaN|+Inf|-Inf)` is `NaN`

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun tan(x: Float): Float = nativeMath.tan(x.toDouble()).toFloat()
Computes the arc sine of the value [x];
the returned value is an angle in the range from  $-\pi/2$  to  $\pi/2$  radians.
Special cases:
    - `asin(x)` is `NaN`, when  $abs(x) > 1$  or  $x$  is `NaN`

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun asin(x: Float): Float = nativeMath.asin(x.toDouble()).toFloat()
Computes the arc cosine of the value [x];
the returned value is an angle in the range from  $0.0$  to  $\pi$  radians.
Special cases:
    - `acos(x)` is `NaN`, when  $abs(x) > 1$  or  $x$  is `NaN`

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun acos(x: Float): Float = nativeMath.acos(x.toDouble()).toFloat()
Computes the arc tangent of the value [x];
the returned value is an angle in the range from  $-\pi/2$  to  $\pi/2$  radians.
Special cases:
    - `atan(NaN)` is `NaN`

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun atan(x: Float): Float = nativeMath.atan(x.toDouble()).toFloat()
Returns the angle `theta` of the polar coordinates `(r, theta)` that correspond
to the rectangular coordinates `(x, y)` by computing the arc tangent of the value  $y / x$ ;
the returned value is an angle in the range from  $-\pi$  to  $\pi$  radians.
Special cases:
    - `atan2(0.0, 0.0)` is  $0.0$ 
    - `atan2(0.0, x)` is  $0.0$  for  $x > 0$  and  $\pi$  for  $x < 0$ 
    - `atan2(-0.0, x)` is  $-0.0$  for  $x > 0$  and  $-\pi$  for  $x < 0$ 
    - `atan2(y, +Inf)` is  $0.0$  for  $0 < y < +Inf$  and  $-0.0$  for  $-Inf < y < 0$ 
    - `atan2(y, -Inf)` is  $\pi$  for  $0 < y < +Inf$  and  $-\pi$  for  $-Inf < y < 0$ 
    - `atan2(y, 0.0)` is  $\pi/2$  for  $y > 0$  and  $-\pi/2$  for  $y < 0$ 

```

`atan2(+Inf, x)` is `PI/2` for finite `x` `atan2(-Inf, x)` is `-PI/2` for finite `x` `atan2(NaN, x)` and `atan2(y, NaN)` is `NaN` `@SinceKotlin("1.2")@InlineOnly@public`  
`actual inline fun atan2(y: Float, x: Float): Float = nativeMath.atan2(y.toDouble(), x.toDouble()).toFloat()`  
 Computes the hyperbolic sine of the value `[x]` `Special cases:` `sinh(NaN)` is `NaN` `sinh(+Inf)` is `+Inf` `sinh(-Inf)` is `-Inf` `@SinceKotlin("1.2")@InlineOnly@public`  
`actual inline fun sinh(x: Float): Float = nativeMath.sinh(x.toDouble()).toFloat()`  
 Computes the hyperbolic cosine of the value `[x]` `Special cases:` `cosh(NaN)` is `NaN` `cosh(+Inf|-Inf)` is `+Inf` `@SinceKotlin("1.2")@InlineOnly@public`  
`actual inline fun cosh(x: Float): Float = nativeMath.cosh(x.toDouble()).toFloat()`  
 Computes the hyperbolic tangent of the value `[x]` `Special cases:` `tanh(NaN)` is `NaN` `tanh(+Inf)` is `1.0` `tanh(-Inf)` is `-1.0` `@SinceKotlin("1.2")@InlineOnly@public`  
`actual inline fun tanh(x: Float): Float = nativeMath.tanh(x.toDouble()).toFloat()`  
 \* Computes the inverse hyperbolic sine of the value `[x]` `The returned value is `y` such that `sinh(y) == x`` `Special cases:` `asinh(NaN)` is `NaN` `asinh(+Inf)` is `+Inf` `asinh(-Inf)` is `-Inf` `@SinceKotlin("1.2")@InlineOnly@public`  
`actual inline fun asinh(x: Float): Float = nativeMath.asinh(x.toDouble()).toFloat()`  
 Computes the inverse hyperbolic cosine of the value `[x]` `The returned value is positive `y` such that `cosh(y) == x`` `Special cases:` `acosh(NaN)` is `NaN` `acosh(x)` is `NaN` when `x < 1` `acosh(+Inf)` is `+Inf` `@SinceKotlin("1.2")@InlineOnly@public`  
`actual inline fun acosh(x: Float): Float = nativeMath.acosh(x.toDouble()).toFloat()`  
 Computes the inverse hyperbolic tangent of the value `[x]` `The returned value is `y` such that `tanh(y) == x`` `Special cases:` `tanh(NaN)` is `NaN` `tanh(x)` is `NaN` when `x > 1` or `x < -1` `tanh(1.0)` is `+Inf` `tanh(-1.0)` is `-Inf` `@SinceKotlin("1.2")@InlineOnly@public`  
`actual inline fun atanh(x: Float): Float = nativeMath.atanh(x.toDouble()).toFloat()`  
 Computes `sqrt(x^2 + y^2)` without intermediate overflow or underflow. `Special cases:` returns `+Inf` if any of arguments is infinite returns `NaN` if any of arguments is `NaN` and the other is not infinite `@SinceKotlin("1.2")@InlineOnly@public`  
`actual inline fun hypot(x: Float, y: Float): Float = nativeMath.hypot(x.toDouble(), y.toDouble()).toFloat()`  
 Computes the positive square root of the value `[x]` `Special cases:` `sqrt(x)` is `NaN` when `x < 0` or `x` is `NaN` `@SinceKotlin("1.2")@InlineOnly@public`  
`actual inline fun sqrt(x: Float): Float = nativeMath.sqrt(x.toDouble()).toFloat()`  
 Computes Euler's number `e` raised to the power of the value `[x]` `Special cases:` `exp(NaN)` is `NaN` `exp(+Inf)` is `+Inf` `exp(-Inf)` is `0.0` `@SinceKotlin("1.2")@InlineOnly@public`  
`actual inline fun exp(x: Float): Float = nativeMath.exp(x.toDouble()).toFloat()`  
 Computes `exp(x) - 1` `This function can be implemented to produce more precise result for [x] near zero.` `Special cases:` `expm1(NaN)` is `NaN` `expm1(+Inf)` is `+Inf` `expm1(-Inf)` is `-1.0` `@see [exp] function.` `@SinceKotlin("1.2")@InlineOnly@public`  
`actual inline fun expm1(x: Float): Float = nativeMath.expm1(x.toDouble()).toFloat()`  
 Computes the logarithm of the value `[x]` to the given `[base]` `Special cases:` `log(x, b)` is `NaN` if either `x` or `b` are `NaN` `log(x, b)` is `NaN` when `x < 0` or `b <= 0` or `b == 1.0` `log(+Inf, +Inf)` is `NaN` `log(+Inf, b)` is `+Inf` for `b > 1` and `-Inf` for `b < 1` `log(0.0, b)` is `-Inf` for `b > 1` and `+Inf` for `b > 1` `@See also logarithm functions for common fixed bases: [ln], [log10] and [log2].` `@SinceKotlin("1.2")@InlineOnly@public`  
`actual inline fun log(x: Float, base: Float): Float = log(x.toDouble(), base.toDouble()).toFloat()`  
 Computes the natural logarithm (base `E`) of the value `[x]` `Special cases:` `ln(NaN)` is `NaN` `ln(x)` is `NaN` when `x < 0.0` `ln(+Inf)` is `+Inf` `ln(0.0)` is `-Inf` `@SinceKotlin("1.2")@InlineOnly@public`  
`actual inline fun ln(x: Float): Float = nativeMath.log(x.toDouble()).toFloat()`  
 Computes the common logarithm (base 10) of the value `[x]` `@see [ln] function for special cases.` `@SinceKotlin("1.2")@InlineOnly@public`  
`actual inline fun log10(x: Float): Float = nativeMath.log10(x.toDouble()).toFloat()`  
 Computes the binary logarithm (base 2) of the

value [x].  
`@see [ln] function for special cases.`  
`Since Kotlin("1.2")`  
`InlineOnly`  
`public actual inline fun log2(x: Float): Float = nativeMath.log2(x.toDouble()).toFloat()`  
`Computes  $\ln(a + 1)$ .`  
This function can be implemented to produce more precise result for [x] near zero.  
`Special cases:`  
 `$\ln(\text{NaN})$  is  $\text{NaN}$`   
 `$\ln(x)$  is  $\text{NaN}$  where  $x < -1.0$`   
 `$\ln(-1.0)$  is  $-\text{Inf}$`   
 `$\ln(+\text{Inf})$  is  $+\text{Inf}$`   
`@see [ln] function`  
`@see [expm1] function`  
`Since Kotlin("1.2")`  
`InlineOnly`  
`public actual inline fun ln1p(x: Float): Float = nativeMath.log1p(x.toDouble()).toFloat()`  
Rounds the given value [x] to an integer towards positive infinity.  
`@return the smallest Float value that is greater than or equal to the given value [x] and is a mathematical integer.`  
`Special cases:`  
 `$\text{ceil}(x)$  is  $x$  where  $x$  is  $\text{NaN}$  or  $+\text{Inf}$  or  $-\text{Inf}$  or already a mathematical integer.`  
`Since Kotlin("1.2")`  
`InlineOnly`  
`public actual inline fun ceil(x: Float): Float = nativeMath.ceil(x.toDouble()).toFloat()`  
Rounds the given value [x] to an integer towards negative infinity.  
`@return the largest Float value that is smaller than or equal to the given value [x] and is a mathematical integer.`  
`Special cases:`  
 `$\text{floor}(x)$  is  $x$  where  $x$  is  $\text{NaN}$  or  $+\text{Inf}$  or  $-\text{Inf}$  or already a mathematical integer.`  
`Since Kotlin("1.2")`  
`InlineOnly`  
`public actual inline fun floor(x: Float): Float = nativeMath.floor(x.toDouble()).toFloat()`  
Rounds the given value [x] to an integer towards zero.  
`@return the value [x] having its fractional part truncated.`  
`Special cases:`  
 `$\text{truncate}(x)$  is  $x$  where  $x$  is  $\text{NaN}$  or  $+\text{Inf}$  or  $-\text{Inf}$  or already a mathematical integer.`  
`Since Kotlin("1.2")`  
`InlineOnly`  
`public actual inline fun truncate(x: Float): Float = truncate(x.toDouble()).toFloat()`  
Rounds the given value [x] towards the closest integer with ties rounded towards even integer.  
`Special cases:`  
 `$\text{round}(x)$  is  $x$  where  $x$  is  $\text{NaN}$  or  $+\text{Inf}$  or  $-\text{Inf}$  or already a mathematical integer.`  
`Since Kotlin("1.2")`  
`InlineOnly`  
`public actual inline fun round(x: Float): Float = round(x.toDouble()).toFloat()`  
Returns the absolute value of the given value [x].  
`Special cases:`  
 `$\text{abs}(\text{NaN})$  is  $\text{NaN}$`   
`@see absoluteValue extension property for [Float]`  
`Since Kotlin("1.2")`  
`InlineOnly`  
`public actual inline fun abs(x: Float): Float = nativeMath.abs(x.toDouble()).toFloat()`  
Returns the sign of the given value [x]:  
 `$-1.0$  if the value is negative,`  
`zero if the value is zero,`  
 `$1.0$  if the value is positive`  
`Special case:`  
 `$\text{sign}(\text{NaN})$  is  $\text{NaN}$`   
`Since Kotlin("1.2")`  
`InlineOnly`  
`public actual inline fun sign(x: Float): Float = nativeMath.sign(x.toDouble()).toFloat()`  
Returns the smaller of two values.  
`If either value is  $\text{NaN}$ , then the result is  $\text{NaN}$ .`  
`Since Kotlin("1.2")`  
`InlineOnly`  
`public actual inline fun min(a: Float, b: Float): Float = nativeMath.min(a, b)`  
Returns the greater of two values.  
`If either value is  $\text{NaN}$ , then the result is  $\text{NaN}$ .`  
`Since Kotlin("1.2")`  
`InlineOnly`  
`public actual inline fun max(a: Float, b: Float): Float = nativeMath.max(a, b)`  
// extensions  
Raises this value to the power [x].  
`Special cases:`  
 `$b.\text{pow}(0.0)$  is  $1.0$`   
 `$b.\text{pow}(1.0) == b$`   
 `$b.\text{pow}(\text{NaN})$  is  $\text{NaN}$`   
 `$\text{NaN}.\text{pow}(x)$  is  $\text{NaN}$  for  $x \neq 0.0$`   
 `$b.\text{pow}(\text{Inf})$  is  $\text{NaN}$  for  $\text{abs}(b) == 1.0$`   
 `$b.\text{pow}(x)$  is  $\text{NaN}$  for  $b < 0$  and  $x$  is finite and not an integer`  
`Since Kotlin("1.2")`  
`InlineOnly`  
`public actual inline fun Float.pow(x: Float): Float = nativeMath.pow(this.toDouble(), x.toDouble()).toFloat()`  
Raises this value to the integer power [n].  
`See the other overload of [pow] for details.`  
`Since Kotlin("1.2")`  
`InlineOnly`  
`public actual inline fun Float.pow(n: Int): Float = nativeMath.pow(this.toDouble(), n.toDouble()).toFloat()`  
Returns the absolute value of this value.  
`Special cases:`  
 `$\text{NaN}.\text{absoluteValue}$  is  $\text{NaN}$`   
`@see abs function`  
`Since Kotlin("1.2")`  
`InlineOnly`  
`public actual inline val Float.absoluteValue: Float get() = nativeMath.abs(this.toDouble()).toFloat()`  
Returns the sign of this value:  
 `$-1.0$  if the value is negative,`  
`zero if the value is zero,`  
 `$1.0$  if the value is positive`  
`Special case:`  
 `$\text{NaN}.\text{sign}$  is  $\text{NaN}$`   
`Since Kotlin("1.2")`  
`InlineOnly`  
`public actual inline val Float.sign: Float get() = nativeMath.sign(this.toDouble()).toFloat()`  
Returns this value with the sign bit same as of the [sign] value.  
`If [sign] is  $\text{NaN}$  the sign of the result is undefined.`  
`Since Kotlin("1.2")`  
`InlineOnly`  
`public actual inline fun Float.withSign(sign: Float): Float =`





```

actual fun Float.isInfinite(): Boolean = this == Float.POSITIVE_INFINITY || this ==
Float.NEGATIVE_INFINITY\n\n/**\n * Returns `true` if the argument is a finite floating-point value; returns
`false` otherwise (for `NaN` and infinity arguments).\n */\npublic actual fun Double.isFinite(): Boolean =
!isInfinite() && !isNaN()\n\n/**\n * Returns `true` if the argument is a finite floating-point value; returns `false` otherwise (for `NaN` and infinity
arguments).\n */\npublic actual fun Float.isFinite(): Boolean = !isInfinite() && !isNaN()\n\n\n/**\n * Counts the
number of set bits in the binary representation of this [Int] number.\n\n
*/\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun
Int.countOneBits(): Int {\n // Hacker's Delight 5-1 algorithm\n var v = this\n v = (v and 0x55555555) +
(v.ushr(1) and 0x55555555)\n v = (v and 0x33333333) + (v.ushr(2) and 0x33333333)\n v = (v and 0x0F0F0F0F)
+ (v.ushr(4) and 0x0F0F0F0F)\n v = (v and 0x00FF00FF) + (v.ushr(8) and 0x00FF00FF)\n v = (v and
0x0000FFFF) + (v.ushr(16))\n return v\n}\n\n/**\n * Counts the number of consecutive most significant bits that
are zero in the binary representation of this [Int] number.\n\n
*/\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c
actual inline fun Int.countLeadingZeroBits(): Int = JsMath.clz32(this)\n\n/**\n * Counts the number of consecutive
least significant bits that are zero in the binary representation of this [Int] number.\n\n
*/\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun
Int.countTrailingZeroBits(): Int =\n // Hacker's Delight 5-4 algorithm for expressing countTrailingZeroBits with
countLeadingZeroBits\n Int.SIZE_BITS - (this or -this).inv().countLeadingZeroBits()\n\n/**\n * Returns a
number having a single bit set in the position of the most significant set bit of this [Int] number,\n * or zero, if this
number is zero.\n\n
*/\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun
Int.takeHighestOneBit(): Int =\n if (this == 0) 0 else 1.shl(Int.SIZE_BITS - 1 - countLeadingZeroBits())\n\n/**\n *
Returns a number having a single bit set in the position of the least significant set bit of this [Int] number,\n *
or zero, if this number is zero.\n\n
*/\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun
Int.takeLowestOneBit(): Int =\n // Hacker's Delight 2-1 algorithm for isolating rightmost 1-bit\n this and -
this\n\n/**\n * Rotates the binary representation of this [Int] number left by the specified [bitCount] number of
bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the
right side.\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit
count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n * Rotating by a multiple of [Int.SIZE_BITS] (32)
returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 32)`\n\n
*/\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun
Int.rotateLeft(bitCount: Int): Int =\n shl(bitCount) or ushr(Int.SIZE_BITS - bitCount)\n\n\n/**\n * Rotates the
binary representation of this [Int] number right by the specified [bitCount] number of bits.\n * The
least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n
*\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n *
`number.rotateRight(-n) == number.rotateLeft(n)`\n * Rotating by a multiple of [Int.SIZE_BITS] (32) returns
the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 32)`\n\n
*/\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun
Int.rotateRight(bitCount: Int): Int =\n shl(Int.SIZE_BITS - bitCount) or ushr(bitCount)\n\n\n/**\n * Counts the
number of set bits in the binary representation of this [Long] number.\n\n
*/\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun
Long.countOneBits(): Int =\n high.countOneBits() + low.countOneBits()\n\n\n/**\n * Counts the number of consecutive
most significant bits that are zero in the binary representation of this [Long]
number.\n\n
*/\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun
Long.countLeadingZeroBits(): Int =\n when (val high = this.high) {\n 0 -> Int.SIZE_BITS +
low.countLeadingZeroBits()\n else -> high.countLeadingZeroBits()\n }\n\n\n/**\n * Counts the number of

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consecutive least significant bits that are zero in the binary representation of this [Long] number.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun
Long.countTrailingZeroBits(): Int =\n    when (val low = this.low) {\n        0 -> Int.SIZE_BITS +
high.countTrailingZeroBits()\n        else -> low.countTrailingZeroBits()\n    }\n\n/**\n * Returns a number having a
single bit set in the position of the most significant set bit of this [Long] number,\n * or zero, if this number is
zero.\n */\n*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic
actual fun Long.takeHighestOneBit(): Long =\n    when (val high = this.high) {\n        0 ->
Long(low.takeHighestOneBit(), 0)\n        else -> Long(0, high.takeHighestOneBit())\n    }\n\n/**\n * Returns a
number having a single bit set in the position of the least significant set bit of this [Long] number,\n * or zero, if this
number is zero.\n */\n*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun
Long.takeLowestOneBit(): Long =\n    when (val low = this.low) {\n        0 -> Long(0, high.takeLowestOneBit())\n
        else -> Long(low.takeLowestOneBit(), 0)\n    }\n\n/**\n * Rotates the binary representation of this [Long]
number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side
reenter the number as the least significant bits on the right side.\n * Rotating the number left by a negative bit
count is the same as
rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n * Rotating by
a multiple of [Long.SIZE_BITS] (64) returns the same number, or more generally\n * `number.rotateLeft(n) ==
number.rotateLeft(n % 64)`\n
*/\n*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun
Long.rotateLeft(bitCount: Int): Long {\n    if ((bitCount and 31) != 0) {\n        val low = this.low\n        val high =
this.high\n        val newLow = low.shl(bitCount) or high.ushr(-bitCount)\n        val newHigh = high.shl(bitCount) or
low.ushr(-bitCount)\n        return if ((bitCount and 32) == 0) Long(newLow, newHigh) else Long(newHigh,
newLow)\n    } else {\n        return if ((bitCount and 32) == 0) this else Long(high, low)\n    }\n}\n\n/**\n *
Rotates the binary representation of this [Long] number right by the specified [bitCount] number of bits.\n * The
least significant bits pushed out from the right side reenter the number as the
most significant bits on the left side.\n * Rotating the number right by a negative bit count is the same as
rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n * Rotating by a
multiple of [Long.SIZE_BITS] (64) returns the same number, or more generally\n * `number.rotateRight(n) ==
number.rotateRight(n % 64)`\n
*/\n*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic
actual inline fun Long.rotateRight(bitCount: Int): Long = rotateLeft(-bitCount)\n", /*\n * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\nimport
kotlin.internal.LowPriorityInOverloadResolution\n\n/**\n * Exposes the JavaScript [Promise
object](https://developer.mozilla.org/en/docs/Web/JavaScript/Reference/Global_Objects/Promise) to Kotlin.\n
*/\n*\n@Suppress("NOT_DOCUMENTED")\npublic open external class Promise<out T>(executor: (resolve: (T) ->
Unit, reject: (Throwable) -> Unit) -> Unit) {\n    @LowPriorityInOverloadResolution\n    public open fun <S>
then(onFulfilled: ((T) -> S)?): Promise<S>\n\n    @LowPriorityInOverloadResolution\n    public open fun <S>
then(onFulfilled: ((T) -> S)?, onRejected: ((Throwable) -> S)?): Promise<S>\n\n    public open fun <S>
catch(onRejected: (Throwable) -> S): Promise<S>\n\n    public open fun finally(onFinally: () -> Unit):
Promise<T>\n\n    companion object {\n        public fun <S> all(promise: Array<out Promise<S>>):
Promise<Array<out S>>\n\n        public fun <S> race(promise: Array<out Promise<S>>): Promise<S>\n\n        public fun reject(e: Throwable): Promise<Nothing>\n\n        public fun <S> resolve(e: S): Promise<S>\n        public
fun <S> resolve(e: Promise<S>): Promise<S>\n    }\n}\n\n// It's workaround for KT-19672 since we can fix it
properly until KT-11265 isn't fixed.\ninline
fun <T, S> Promise<Promise<T>>.then(\n    noinline onFulfilled: ((T) -> S)?\n): Promise<S> {\n    return
this.unsafeCast<Promise<T>>().then(onFulfilled)\n}\n\ninline fun <T, S> Promise<Promise<T>>.then(\n    noinline
onFulfilled: ((T) -> S)?,\n    noinline onRejected: ((Throwable) -> S)?\n): Promise<S> {\n    return

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this.unsafeCast<Promise<T>>().then(onFulfilled, onRejected)\n}\n", /*\n * Copyright 2010-2018 JetBrains s.r.o.
and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license
that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.random\n\nimport
kotlin.math.pow\n\ninternal actual fun defaultPlatformRandom(): Random =\n    Random(js(Math.random() *
Math.pow(2, 32)) | 0).unsafeCast<Int>()\n\nprivate val INV_2_26: Double = 2.0.pow(-26)\nprivate val
INV_2_53: Double = 2.0.pow(-53)\n\ninternal actual fun doubleFromParts(hi26: Int, low27: Int): Double =\n    hi26 *
INV_2_26 + low27 * INV_2_53", /*\n
* Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code
is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
kotlin.reflect\n\nimport findAssociatedObject\n\n/**\n * The experimental marker for associated objects API.\n */\n
* Any usage of a declaration annotated with `@ExperimentalAssociatedObjects` must be accepted either by\n *
annotating that usage with the [OptIn] annotation, e.g. `@OptIn(ExperimentalAssociatedObjects::class)`,\n * or by
using the compiler argument `-opt-in=kotlin.reflect.ExperimentalAssociatedObjects`.\n */\n\n@RequiresOptIn(level =
RequiresOptIn.Level.ERROR)\n@Retention(value = AnnotationRetention.BINARY)\n\npublic annotation class
ExperimentalAssociatedObjects\n\n/**\n * Makes the annotated annotation class an associated object key.\n */\n
* An associated object key annotation should have single [KClass] parameter.\n * When applied to a class with
reference
to an object declaration as an argument, it binds\n * the object to the class, making this binding discoverable at
runtime using [findAssociatedObject].\n
*/\n\n@ExperimentalAssociatedObjects\n@Retention(AnnotationRetention.BINARY)\n@Target(AnnotationTarget.A
NNOTATION_CLASS)\n\npublic annotation class AssociatedObjectKey\n\n/**\n * If [T] is an
@[AssociatedObjectKey]-annotated annotation class and [this] class is annotated with @[T](`S::class`),\n * returns
object `S`.\n * Otherwise returns `null`.\n */\n\n@ExperimentalAssociatedObjects\n\npublic inline fun <reified T :
Annotation> KClass<*>.findAssociatedObject(): Any? =\n    this.findAssociatedObject(T::class)", /*\n
* Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\nimport
getKClass\n\nimport kotlin.reflect.KClass\n\nimport kotlin.reflect.js.internal.KClassImpl\n\n/**\n
* Represents the constructor of a class. Instances of `JsClass` can be passed to JavaScript APIs that expect a
constructor reference.\n */\n\nexternal interface JsClass<T : Any> {\n    /**\n     * Returns the unqualified name of the
class represented by this instance.\n     */\n    val name: String\n}\n\n/**\n * Obtains a constructor reference for the
given `KClass`.\n */\n\nval <T : Any> KClass<T>.js: JsClass<T>\n    get() = (this as KClassImpl<T>).jClass\n\n/**\n
* Obtains a `KClass` instance for the given constructor reference.\n */\n\nval <T : Any> JsClass<T>.kotlin:
KClass<T>\n    get() = getKClass(this)\n", /*\n
* Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin.reflect.js.internal\n\nimport kotlin.reflect.*\n\ninternal abstract
class KClassImpl<T : Any>(\n    internal open val jClass: JsClass<T>)\n) : KClass<T>\n
{\n\n    override val qualifiedName: String?\n        get() = TODO()\n\n    override fun equals(other: Any?): Boolean
{\n        return other is KClassImpl<*> && jClass == other.jClass\n    }\n\n    // TODO: use FQN\n    override fun
hashCode(): Int = simpleName?.hashCode() ?: 0\n\n    override fun toString(): String {\n        // TODO: use FQN\n
return "\"class $simpleName\"\n    }\n}\n\ninternal class SimpleKClassImpl<T : Any>(jClass: JsClass<T>) :
KClassImpl<T>(jClass) {\n    override val simpleName: String? =
jClass.asDynamic().$metadata$.simpleName.unsafeCast<String?>()\n\n    override fun isInstance(value: Any?):
Boolean {\n        return jsIsType(value, jClass)\n    }\n}\n\ninternal class PrimitiveKClassImpl<T : Any>(\n
jClass: JsClass<T>,\n    private val givenSimpleName: String,\n    private val isInstanceFunction: (Any?) ->
Boolean)\n) : KClassImpl<T>(jClass) {\n    override fun equals(other: Any?): Boolean {\n        if (other !is
PrimitiveKClassImpl<*>) return
false\n        return super.equals(other) && givenSimpleName == other.givenSimpleName\n    }\n\n    override val
simpleName: String? get() = givenSimpleName\n\n    override fun isInstance(value: Any?): Boolean {\n        return

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isInstanceFunction(value)\n } \n\ninternal object NothingKClassImpl : KClassImpl<Nothing>(js("Object"))
{\n override val simpleName: String = "Nothing"\n\n override fun isInstance(value: Any?): Boolean = false\n\n
override val jClass: JsClass<Nothing>\n get() = throw UnsupportedOperationException("There's no native JS
class for Nothing type")\n\n override fun equals(other: Any?): Boolean = other === this\n\n override fun
hashCode(): Int = 0\n}\n\ninternal class ErrorKClass : KClass<Nothing> {\n override val simpleName: String?
get() = error("Unknown simpleName for ErrorKClass")\n override val qualifiedName: String? get() =
error("Unknown qualifiedName for ErrorKClass")\n\n override fun isInstance(value: Any?): Boolean
= error("Can's check isInstance on ErrorKClass")\n\n override fun equals(other: Any?): Boolean = other ===
this\n\n override fun hashCode(): Int = 0\n}"/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect\n\ninternal actual inline val
KClass<*>.qualifiedOrSimpleName: String?\n get() = simpleName"/*\n * Copyright 2010-2018 JetBrains s.r.o.
and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license
that can be found in the license/LICENSE.txt file.\n */\n\n// a package is omitted to get declarations directly under
the module\n\n// TODO: Remove once JsReflectionAPICallChecker supports more reflection
types\n@file:Suppress("Unsupported")\n\nimport kotlin.reflect.*\nimport
kotlin.reflect.js.internal.*\n\n@JsName("createKType")\n\ninternal
fun createKType(\n classifier: KClassifier,\n arguments: Array<KTypeProjection>,\n isMarkedNullable:
Boolean)\n =\n KTypeImpl(classifier, arguments.asList(),
isMarkedNullable)\n\n@JsName("createDynamicKType")\n\ninternal fun createDynamicKType(): KType =
DynamicKType\n\n@JsName("markKTypeNullable")\n\ninternal fun markKTypeNullable(kType: KType) =
KTypeImpl(kType.classifier!!, kType.arguments, true)\n\n@JsName("createKTypeParameter")\n\ninternal fun
createKTypeParameter(\n name: String,\n upperBounds: Array<KType>,\n variance: String)\n:
KTypeParameter {\n val kVariance = when (variance) {\n "in" -> KVariance.IN\n "out" ->
KVariance.OUT\n else -> KVariance.INVARIANT\n }\n\n return KTypeParameterImpl(name,
upperBounds.asList(), kVariance, false)\n}\n\n@JsName("getStarKTypeProjection")\n\ninternal fun
getStarKTypeProjection(): KTypeProjection =\n
KTypeProjection.STAR\n\n@JsName("createCovariantKTypeProjection")\n\ninternal fun
createCovariantKTypeProjection(type: KType): KTypeProjection =\n
KTypeProjection.covariant(type)\n\n@JsName("createInvariantKTypeProjection")\n\ninternal fun
createInvariantKTypeProjection(type: KType): KTypeProjection =\n
KTypeProjection.invariant(type)\n\n@JsName("createContravariantKTypeProjection")\n\ninternal fun
createContravariantKTypeProjection(type: KType): KTypeProjection =\n
KTypeProjection.contravariant(type)"/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin.reflect.js.internal\n\nimport kotlin.reflect.*\n\ninternal class
KTypeImpl(\n override val classifier: KClassifier,\n override val arguments: List<KTypeProjection>,\n
override val isMarkedNullable: Boolean)\n : KType {\n override fun equals(other: Any?): Boolean =\n other
is KTypeImpl &&\n classifier
== other.classifier && arguments == other.arguments && isMarkedNullable == other.isMarkedNullable\n\n
override fun hashCode(): Int =\n (classifier.hashCode() * 31 + arguments.hashCode()) * 31 +
isMarkedNullable.hashCode()\n\n override fun toString(): String {\n val kClass = (classifier as? KClass<*>)\n
val classifierName = when {\n kClass == null -> classifier.toString()\n kClass.simpleName != null
-> kClass.simpleName\n else -> "(non-denotable type)"\n }\n\n val args =\n if
(arguments.isEmpty()) ""\n else arguments.joinToString(", ", "<", ">")\n\n val nullable = if
(isMarkedNullable) "?" else ""\n\n return classifierName + args + nullable\n }\n}\n\ninternal object
DynamicKType : KType {\n override val classifier: KClassifier? = null\n override val arguments:
List<KTypeProjection> = emptyList()\n override val isMarkedNullable: Boolean = false\n

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    override fun toString(): String = "\dynamic\n}\n", /*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect.js.internal\n\nimport kotlin.reflect.*\n\ninternal
data class KTypeParameterImpl(\n    override val name: String,\n    override val upperBounds: List<KType>,\n    override val variance: KVariance,\n    override val isReified: Boolean\n) : KTypeParameter {\n    override fun
toString(): String = name\n} /*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin.reflect.js.internal\n\nimport
kotlin.js.JsClass\n\n@JsName("\PrimitiveClasses")\n\ninternal object PrimitiveClasses {\n
@JsName("\anyClass")\n    val anyClass = PrimitiveKClassImpl(js("\Object").unsafeCast<JsClass<Any>>(),
"\Any", { it is Any })\n\n    @JsName("\numberClass")\n    val numberClass =
PrimitiveKClassImpl(js("\Number").unsafeCast<JsClass<Number>>(), "\Number", { it is Number })\n\n
@JsName("\nothingClass")\n    val nothingClass = NothingKClassImpl\n\n    @JsName("\booleanClass")\n    val
booleanClass = PrimitiveKClassImpl(js("\Boolean").unsafeCast<JsClass<Boolean>>(), "\Boolean", { it is Boolean
})\n\n    @JsName("\byteClass")\n    val byteClass =
PrimitiveKClassImpl(js("\Number").unsafeCast<JsClass<Byte>>(), "\Byte", { it is Byte })\n\n
@JsName("\shortClass")\n    val shortClass = PrimitiveKClassImpl(js("\Number").unsafeCast<JsClass<Short>>(),
"\Short", { it is Short })\n\n    @JsName("\intClass")\n    val intClass =
PrimitiveKClassImpl(js("\Number").unsafeCast<JsClass<Int>>(), "\Int", { it is Int })\n\n
@JsName("\floatClass")\n    val floatClass = PrimitiveKClassImpl(js("\Number").unsafeCast<JsClass<Float>>(),
"\Float", { it is Float })\n\n    @JsName("\doubleClass")\n    val doubleClass =
PrimitiveKClassImpl(js("\Number").unsafeCast<JsClass<Double>>(), "\Double", { it is Double })\n\n
@JsName("\arrayClass")\n    val arrayClass =
PrimitiveKClassImpl(js("\Array").unsafeCast<JsClass<Array<*>>(), "\Array", { it is Array<*> })\n\n
@JsName("\stringClass")\n    val stringClass = PrimitiveKClassImpl(js("\String").unsafeCast<JsClass<String>>(),
"\String", { it is String })\n\n    @JsName("\throwableClass")\n    val throwableClass =
PrimitiveKClassImpl(js("\Error").unsafeCast<JsClass<Throwable>>(), "\Throwable", { it is Throwable })\n\n
@JsName("\booleanArrayClass")\n    val booleanArrayClass =
PrimitiveKClassImpl(js("\Array").unsafeCast<JsClass<BooleanArray>>(), "\BooleanArray", { it is BooleanArray
})\n\n    @JsName("\charArrayClass")\n    val charArrayClass =
PrimitiveKClassImpl(js("\UInt16Array").unsafeCast<JsClass<CharArray>>(), "\CharArray", { it is CharArray
})\n\n
@JsName("\byteArrayClass")\n    val byteArrayClass =
PrimitiveKClassImpl(js("\Int8Array").unsafeCast<JsClass<ByteArray>>(), "\ByteArray", { it is ByteArray })\n\n
@JsName("\shortArrayClass")\n    val shortArrayClass =
PrimitiveKClassImpl(js("\Int16Array").unsafeCast<JsClass<ShortArray>>(), "\ShortArray", { it is ShortArray
})\n\n    @JsName("\intArrayClass")\n    val intArrayClass =
PrimitiveKClassImpl(js("\Int32Array").unsafeCast<JsClass<IntArray>>(), "\IntArray", { it is IntArray })\n\n
@JsName("\longArrayClass")\n    val longArrayClass =
PrimitiveKClassImpl(js("\Array").unsafeCast<JsClass<LongArray>>(), "\LongArray", { it is LongArray })\n\n
@JsName("\floatArrayClass")\n    val floatArrayClass =
PrimitiveKClassImpl(js("\Float32Array").unsafeCast<JsClass<FloatArray>>(), "\FloatArray", { it is FloatArray
})\n\n    @JsName("\doubleArrayClass")\n    val doubleArrayClass =
PrimitiveKClassImpl(js("\Float64Array").unsafeCast<JsClass<DoubleArray>>(), "\DoubleArray",
{ it is DoubleArray })\n\n    @JsName("\functionClass")\n    fun functionClass(arity: Int): KClassImpl<Any> {\n
return functionClasses.get(arity) ?: run {\n        val result =
PrimitiveKClassImpl(js("\Function").unsafeCast<JsClass<Any>>(), "\Function$arity",\n
{ jsTypeOf(it) === "\function" && it.asDynamic().length === arity })\n        functionClasses.asDynamic()[arity]
}

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= result\n      result\n      }\n      }\n\nprivate val functionClasses =
arrayOfNulls<KClassImpl<Any>>(0),"/**\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\n// a package is omitted to get declarations directly under the module\n\nimport
kotlin.reflect.*\nimport kotlin.reflect.js.internal.*\n\n@JsName("getKClass")\ninternal fun <T : Any>
getKClass(jClass: Any /* JsClass<T>
| Array<JsClass<T>> */): KClass<T> {\n  return if (js("Array").isArray(jClass)) {\n
getKClassM(jClass.unsafeCast<Array<JsClass<T>>>())\n  } else {\n
getKClass1(jClass.unsafeCast<JsClass<T>>())\n  }\n}\n\n@JsName("getKClassM")\ninternal fun <T : Any>
getKClassM(jClasses: Array<JsClass<T>>): KClass<T> = when (jClasses.size) {\n  1 ->
getKClass1(jClasses[0])\n  0 -> NothingKClassImpl.unsafeCast<KClass<T>>()\n  else ->
ErrorKClass().unsafeCast<KClass<T>>()\n}\n\n@JsName("getKClassFromExpression")\ninternal fun <T : Any>
getKClassFromExpression(e: T): KClass<T> =\n  when (jsTypeOf(e)) {\n    "string" ->
PrimitiveClasses.stringClass\n    "number" -> if (jsBitwiseOr(e, 0).asDynamic() === e)
PrimitiveClasses.intClass else PrimitiveClasses.doubleClass\n    "boolean" -> PrimitiveClasses.booleanClass\n
"function" -> PrimitiveClasses.functionClass(e.asDynamic().length)\n    else -> {\n      when {\n        e
is BooleanArray
-> PrimitiveClasses.booleanArrayClass\n        e is CharArray -> PrimitiveClasses.charArrayClass\n
e is ByteArray -> PrimitiveClasses.byteArrayClass\n        e is ShortArray -> PrimitiveClasses.shortArrayClass\n
e is IntArray -> PrimitiveClasses.intArrayClass\n        e is LongArray ->
PrimitiveClasses.longArrayClass\n        e is FloatArray -> PrimitiveClasses.floatArrayClass\n
e is DoubleArray -> PrimitiveClasses.doubleArrayClass\n        e is KClass<*> -> KClass::class\n
e is Array<*> -> PrimitiveClasses.arrayClass\n        else -> {\n          val constructor =
js("Object").getPrototypeOf(e).constructor\n          when {\n            constructor === js("Object") ->
PrimitiveClasses.anyClass\n            constructor === js("Error") -> PrimitiveClasses.throwableClass\n
            else -> {\n              val jsClass: JsClass<T> = constructor\n              getKClass1(jsClass)\n            }\n          }\n        }\n      }\n    }\n  }\n}\n\n@JsName("getKClass1")\ninternal fun <T :
Any> getKClass1(jClass: JsClass<T>): KClass<T> {\n  if (jClass === js("String")) return
PrimitiveClasses.stringClass.unsafeCast<KClass<T>>()\n  val metadata = jClass.asDynamic().`$metadata$\n\n
return if (metadata != null) {\n    if (metadata.`$kClass$` == null) {\n      val kClass =
SimpleKClassImpl(jClass)\n      metadata.`$kClass$` = kClass\n      kClass\n    } else {\n      metadata.`$kClass$`\n    }\n  } else {\n    SimpleKClassImpl(jClass)\n  }\n}\n}"/**\n * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
kotlin.js\n\n/**\n * Exposes the JavaScript [RegExp]
object](https://developer.mozilla.org/en/docs/Web/JavaScript/Reference/Global_Objects/RegExp) to Kotlin.\n
*/\n\n@Suppress("NOT_DOCUMENTED")\npublic external class RegExp(pattern: String, flags: String? =
definedExternally) {\n\n  public fun test(str: String): Boolean\n\n  public fun exec(str: String): RegExpMatch?\n\n
  public override fun toString(): String\n\n  /**\n   * The lastIndex is a read/write integer property of regular
expressions that specifies the index at which to start the next match.\n   */\n  public var lastIndex: Int\n\n  public
val global: Boolean\n\n  public val ignoreCase: Boolean\n\n  public val multiline: Boolean\n}\n\n/**\n * Resets the
regular expression so that subsequent [RegExp.test] and [RegExp.exec] calls will match starting with the beginning
of the input string.\n */\n\npublic fun RegExp.reset() {\n  lastIndex = 0\n}\n\n// TODO: Inherit from array or
introduce asArray() extension\n\n/**\n * Represents the return value of [RegExp.exec].\n */\n\n@Suppress("NOT_DOCUMENTED")\npublic external
interface RegExpMatch {\n  public val index: Int\n  public val input: String\n  public val length: Int\n}\n\n/**\n * Returns the entire text matched by [RegExp.exec] if the [index] parameter is 0, or the text matched by the

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capturing parenthesis\n * at the given index.\n *\npublic inline operator fun RegExpMatch.get(index: Int): String? =
asDynamic()[index]\n\n/**\n * Converts the result of [RegExp.exec] to an array where the first element contains the
entire matched text and each subsequent\n * element is the text matched by each capturing parenthesis.\n *\npublic
inline fun RegExpMatch.asArray(): Array<out String?> = unsafeCast<Array<out String?>>()\n","/*\n * Copyright
2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n *\npackage
kotlin.sequences\n\ninternal actual class ConstrainedOnceSequence<T> actual constructor(sequence:
Sequence<T>) : Sequence<T> {\n    private var sequenceRef: Sequence<T>? = sequence\n\n    actual override fun
iterator(): Iterator<T> {\n        val sequence = sequenceRef ?: throw IllegalStateException("This sequence can be
consumed only once.")\n        sequenceRef = null\n        return sequence.iterator()\n    }\n}\n","/*\n * Copyright
2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n *\npackage
kotlin.text\n\n@SinceKotlin("1.5")\npublic actual enum class CharCategory(internal val value: Int, public actual
val code: String) {\n    /**\n     * General category \"Cn\" in the Unicode specification.\n     *\n     UNASSIGNED(0,
\"Cn\"),\n\n    /**\n     * General category \"Lu\" in the Unicode specification.\n     *\n     UPPERCASE_LETTER(1,
\"Lu\"),\n\n    /**\n     * General category \"Ll\" in the Unicode specification.\n     *\n     LOWERCASE_LETTER(2,
\"Ll\"),\n\n    /**\n     * General category \"Lt\" in the Unicode specification.\n     *\n     TITLECASE_LETTER(3,
\"Lt\"),\n\n    /**\n     * General category \"Lm\" in the Unicode specification.\n     *\n     MODIFIER_LETTER(4,
\"Lm\"),\n\n    /**\n     * General category \"Lo\" in the Unicode specification.\n     *\n     OTHER_LETTER(5,
\"Lo\"),\n\n    /**\n     * General category \"Mn\" in the Unicode specification.\n     *\n     NON_SPACING_MARK(6,
\"Mn\"),\n\n    /**\n     * General category \"Me\" in the Unicode specification.\n     *\n     ENCLOSING_MARK(7,
\"Me\"),\n\n    /**\n     * General category \"Mc\" in the Unicode specification.\n     *\n     COMBINING_SPACING_MARK(8,
\"Mc\"),\n\n    /**\n     * General category \"Nd\" in the Unicode
specification.\n     *\n     DECIMAL_DIGIT_NUMBER(9, \"Nd\"),\n\n    /**\n     * General category \"NI\" in the
Unicode specification.\n     *\n     LETTER_NUMBER(10, \"NI\"),\n\n    /**\n     * General category \"No\" in the Unicode
specification.\n     *\n     OTHER_NUMBER(11, \"No\"),\n\n    /**\n     * General category \"Zs\" in the Unicode
specification.\n     *\n     SPACE_SEPARATOR(12, \"Zs\"),\n\n    /**\n     * General category \"Zl\" in the Unicode
specification.\n     *\n     LINE_SEPARATOR(13, \"Zl\"),\n\n    /**\n     * General category \"Zp\" in the Unicode
specification.\n     *\n     PARAGRAPH_SEPARATOR(14, \"Zp\"),\n\n    /**\n     * General category \"Cc\" in the Unicode
specification.\n     *\n     CONTROL(15, \"Cc\"),\n\n    /**\n     * General category \"Cf\" in the Unicode
specification.\n     *\n     FORMAT(16, \"Cf\"),\n\n    /**\n     * General category \"Co\" in the Unicode
specification.\n     *\n     PRIVATE_USE(18, \"Co\"),\n\n    /**\n     * General category \"Cs\" in the Unicode
specification.\n     *\n     SURROGATE(19, \"Cs\"),\n\n    /**\n     * General category \"Pd\" in
the Unicode specification.\n     *\n     DASH_PUNCTUATION(20, \"Pd\"),\n\n    /**\n     * General category \"Ps\"
in the Unicode specification.\n     *\n     START_PUNCTUATION(21, \"Ps\"),\n\n    /**\n     * General category
\"Pe\" in the Unicode specification.\n     *\n     END_PUNCTUATION(22, \"Pe\"),\n\n    /**\n     * General category
\"Pc\" in the Unicode specification.\n     *\n     CONNECTOR_PUNCTUATION(23, \"Pc\"),\n\n    /**\n     *
General category \"Po\" in the Unicode specification.\n     *\n     OTHER_PUNCTUATION(24, \"Po\"),\n\n    /**\n     *
General category \"Sm\" in the Unicode specification.\n     *\n     MATH_SYMBOL(25, \"Sm\"),\n\n    /**\n     *
General category \"Sc\" in the Unicode specification.\n     *\n     CURRENCY_SYMBOL(26, \"Sc\"),\n\n    /**\n     *
General category \"Sk\" in the Unicode specification.\n     *\n     MODIFIER_SYMBOL(27, \"Sk\"),\n\n    /**\n     *
General category \"So\" in the Unicode specification.\n     *\n     OTHER_SYMBOL(28, \"So\"),\n\n    /**\n     *
General category \"Pi\" in the Unicode specification.\n     *\n     INITIAL_QUOTE_PUNCTUATION(29, \"Pi\"),\n\n    /**\n     *
General category \"Pf\" in the Unicode
specification.\n     *\n     FINAL_QUOTE_PUNCTUATION(30, \"Pf\"),\n\n    /**\n     * Returns `true` if [char]
character belongs to this category.\n     *\n     public actual operator fun contains(char: Char): Boolean =

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char.getCategoryValue() == this.value\n\n companion object {\n    internal fun valueOf(category: Int):
CharCategory =\n        when (category) {\n            in 0..16 -> values()[category]\n            in 18..30 ->
values()[category - 1]\n            else -> throw IllegalArgumentException("Category #\$category is not defined.")\n        }\n    }\n}\n", /*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\npackage
kotlin.text\n\n/**\n * The exception thrown when a character encoding or decoding error occurs.\n */\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual open class
CharacterCodingException(message: String?) : Exception(message) {\n    actual constructor() : this(null)\n}\n", /*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code
is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\npackage
kotlin.text\n\n/**\n * A mutable sequence of characters.\n */\n * String builder can be used to efficiently perform
multiple string manipulation operations.\n */\npublic actual class StringBuilder actual constructor(content: String) :
Appendable, CharSequence {\n    /**\n     * Constructs an empty string builder with the specified initial [capacity].\n     */\n     * In Kotlin/JS implementation of StringBuilder the initial capacity has no effect on the
further performance of operations.\n     */\n     actual constructor(capacity: Int) : this() {\n     }\n     /** Constructs a
string builder that contains the same characters as the specified [content] char sequence. *\n     actual
constructor(content: CharSequence) : this(content.toString()) {\n     }\n     /** Constructs an empty string builder. *\n
actual constructor() : this("")\n     private var string: String = if (content !== undefined) content else ""\n     actual override val length: Int\n     get() = string.asDynamic().length\n     actual override fun get(index: Int): Char
=\n     string.getOrNull(index) { throw IndexOutOfBoundsException("index: \$index, length: \$length") }\n     actual override fun subSequence(startIndex: Int, endIndex: Int): CharSequence = string.substring(startIndex,
endIndex)\n     actual override fun append(value: Char): StringBuilder {\n     string += value\n     return this\n     }\n     actual override fun append(value: CharSequence?):
StringBuilder {\n     string += value.toString()\n     return this\n     }\n     actual override fun append(value:
CharSequence?, startIndex: Int, endIndex: Int): StringBuilder =\n     this.appendRange(value ?: "null", startIndex,
endIndex)\n     /**\n     * Reverses the contents of this string builder and returns this instance.\n     */\n     *
Surrogate pairs included in this string builder are treated as single characters.\n     * Therefore, the order of the high-
low surrogates is never reversed.\n     * Note that the reverse operation may produce new surrogate pairs that
were unpaired low-surrogates and high-surrogates before the operation.\n     * For example, reversing
`"\uDC00\uD800"` produces `"\uD800\uDC00"` which is a valid surrogate pair.\n     */\n     actual fun
reverse(): StringBuilder {\n     var reversed = ""\n     var index = string.length - 1\n     while (index >= 0) {\n
        val low = string[index--]\n        if (low.isLowSurrogate())\n        && index >= 0) {\n            val high = string[index--]\n            if (high.isHighSurrogate()) {\n
                reversed = reversed + high + low\n            } else {\n                reversed = reversed + low + high\n            }\n        } else {\n            reversed += low\n        }\n     }\n     string = reversed\n     return this\n     }\n     /**\n     * Appends the string representation of the specified object [value] to this string builder and returns this
instance.\n     */\n     * The overall effect is exactly as if the [value] were converted to a string by the
`value.toString()` method,\n     * and then that string was appended to this string builder.\n     */\n     actual fun
append(value: Any?): StringBuilder {\n     string += value.toString()\n     return this\n     }\n     /**\n     * Appends the string representation of the specified boolean [value] to this string builder and returns this instance.\n     */\n     * The overall effect is exactly as if the [value] were converted to a string by the `value.toString()`
method,\n     * and then that string was appended to this string builder.\n     */\n     @SinceKotlin("1.3")\n     actual fun append(value: Boolean): StringBuilder {\n     string += value\n     return this\n     }\n     /**\n     * Appends
characters in the specified character array [value] to this string builder and returns this instance.\n     */\n     *
Characters are appended in order, starting at the index 0.\n     */\n     @SinceKotlin("1.4")\n     @WasExperimental(ExperimentalStdlibApi::class)\n     actual fun append(value: CharArray): StringBuilder {\n     string += value.concatToString()\n     return this\n     }\n     @Deprecated("Provided for binary compatibility.",

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level = DeprecationLevel.HIDDEN)\n fun append(value: String): StringBuilder = append(value)\n\n /**\n *
Appends the specified string [value] to this string builder and returns
this instance.\n * If [value] is `null`, then the four characters `null` are appended.\n */
@SinceKotlin("1.3")\n actual fun append(value: String?): StringBuilder {\n this.string += value ?: "null"\n
return this\n }\n\n /**\n * Returns the current capacity of this string builder.\n * The capacity is the
maximum length this string builder can have before an allocation occurs.\n * In Kotlin/JS implementation
of StringBuilder the value returned from this method may not indicate the actual size of the backing storage.\n
*/\n @SinceKotlin("1.3")\n// @ExperimentalStdlibApi\n @Deprecated("Obtaining StringBuilder capacity is
not supported in JS and common code.", level = DeprecationLevel.ERROR)\n actual fun capacity(): Int =
length\n\n /**\n * Ensures that the capacity of this string builder is at least equal to the specified
[minimumCapacity].\n * If the current capacity
is less than the [minimumCapacity], a new backing storage is allocated with greater capacity.\n * Otherwise, this
method takes no action and simply returns.\n * In Kotlin/JS implementation of StringBuilder the size of the
backing storage is not extended to comply the given [minimumCapacity],\n * thus calling this method has no
effect on the further performance of operations.\n */\n @SinceKotlin("1.4")\n
@WasExperimental(ExperimentalStdlibApi::class)\n actual fun ensureCapacity(minimumCapacity: Int) {\n
}\n\n /**\n * Returns the index within this string builder of the first occurrence of the specified [string].\n *
Returns -1 if the specified [string] does not occur in this string builder.\n */\n @SinceKotlin("1.4")\n
@WasExperimental(ExperimentalStdlibApi::class)\n actual fun indexOf(string: String): Int =
this.string.asDynamic().indexOf(string)\n\n /**\n * Returns the index within this string builder of
the first occurrence of the specified [string],\n * starting at the specified [startIndex].\n * Returns -1 if
the specified [string] does not occur in this string builder starting at the specified [startIndex].\n */\n
@SinceKotlin("1.4")\n @WasExperimental(ExperimentalStdlibApi::class)\n actual fun indexOf(string: String,
startIndex: Int): Int = this.string.asDynamic().indexOf(string, startIndex)\n\n /**\n * Returns the index
within
this string builder of the last occurrence of the specified [string].\n * The last occurrence of empty string `""` is
considered to be at the index equal to `this.length`.\n * Returns -1 if the specified [string] does not occur
in this string builder.\n */\n @SinceKotlin("1.4")\n @WasExperimental(ExperimentalStdlibApi::class)\n
actual fun lastIndexOf(string: String): Int = this.string.asDynamic().lastIndexOf(string)\n\n /**\n * Returns the
index
within this string builder of the
last occurrence of the specified [string],\n * starting from the specified [startIndex] toward the beginning.\n *
Returns -1 if the specified [string] does not occur in this string builder starting at the specified [startIndex].\n
*/\n @SinceKotlin("1.4")\n @WasExperimental(ExperimentalStdlibApi::class)\n actual fun
lastIndexOf(string: String, startIndex: Int): Int {\n if (string.isEmpty() && startIndex < 0) return -1\n
return
this.string.asDynamic().lastIndexOf(string, startIndex)\n }\n\n /**\n * Inserts the string representation of the
specified boolean [value] into this string builder at the specified [index] and returns this instance.\n * The
overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n * and
then
that string was inserted into this string builder at the specified [index].\n * @throws
IndexOutOfBoundsException if [index] is less than zero
or greater than the length of this string builder.\n */\n @SinceKotlin("1.4")\n
@WasExperimental(ExperimentalStdlibApi::class)\n actual fun insert(index: Int, value: Boolean): StringBuilder
{\n AbstractList.checkPositionIndex(index, length)\n\n string = string.substring(0, index) + value +
string.substring(index)\n\n return this\n }\n\n /**\n * Inserts the specified character [value] into this string
builder at the specified [index] and returns this instance.\n * @throws IndexOutOfBoundsException if
[index] is less than zero or greater than the length of this string builder.\n */\n @SinceKotlin("1.4")\n
@WasExperimental(ExperimentalStdlibApi::class)\n actual fun insert(index: Int, value: Char): StringBuilder {\n
AbstractList.checkPositionIndex(index, length)\n\n string = string.substring(0, index) + value +
string.substring(index)\n\n return this\n }\n\n /**\n * Inserts characters in

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the specified character array [value] into this string builder at the specified [index] and returns this instance.\n *\n
 * The inserted characters go in same order as in the [value] character array, starting at [index].\n *\n
 * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n
 */\n
@SinceKotlin("1.4")\n @WasExperimental(ExperimentalStdlibApi::class)\n actual fun insert(index: Int,
value: CharArray): String Builder {\n     AbstractList.checkPositionIndex(index, length)\n     string =
string.substring(0, index) + value.concatToString() + string.substring(index)\n     return this\n }\n\n /**\n
 * Inserts characters in the specified character sequence [value] into this string builder at the specified [index] and
returns this instance.\n *\n
 * The inserted characters go in the same order as in the [value] character sequence,
starting at [index].\n *\n
 * @param
index the position in this string builder to insert at.\n *\n
 * @param value the character sequence from which
characters are inserted. If [value] is `null`, then the four characters `\\null` are inserted.\n *\n
 * @throws
IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n
 */\n
@SinceKotlin("1.4")\n @WasExperimental(ExperimentalStdlibApi::class)\n actual fun insert(index: Int, value:
CharSequence?): String Builder {\n     AbstractList.checkPositionIndex(index, length)\n     string =
string.substring(0, index) + value.toString() + string.substring(index)\n     return this\n }\n\n /**\n
 * Inserts
the string representation of the specified object [value] into this string builder at the specified [index] and returns
this instance.\n *\n
 * The overall effect is exactly as if the [value] were converted to a string by the
`value.toString()` method,\n
 * and then that string was inserted
into this string builder at the specified [index].\n *\n
 * @throws IndexOutOfBoundsException if [index] is less
than zero or greater than the length of this string builder.\n
 */\n
@SinceKotlin("1.4")\n
@WasExperimental(ExperimentalStdlibApi::class)\n actual fun insert(index: Int, value: Any?): String Builder {\n
    AbstractList.checkPositionIndex(index, length)\n     string = string.substring(0, index) + value.toString() +
string.substring(index)\n     return this\n }\n\n @Deprecated("Provided for binary compatibility.", level =
DeprecationLevel.HIDDEN)\n fun insert(index: Int, value: String): String Builder = insert(index, value)\n\n /**\n
 * Inserts the string [value] into this string builder at the specified [index] and returns this instance.\n *\n
 * If
[value] is `null`, then the four characters `\\null` are inserted.\n *\n
 * @throws IndexOutOfBoundsException
if [index] is less than zero or greater than the length
of this string builder.\n
 */\n
@SinceKotlin("1.4")\n @WasExperimental(ExperimentalStdlibApi::class)\n
actual fun insert(index: Int, value: String?): String Builder {\n     AbstractList.checkPositionIndex(index,
length)\n     val toInsert = value ?: "\\null"\n     this.string = this.string.substring(0, index) + toInsert +
this.string.substring(index)\n     return this\n }\n\n /**\n
 * Sets the length of this string builder to the
specified [newLength].\n *\n
 * If the [newLength] is less than the current length, it is changed to the specified
[newLength].\n
 * Otherwise, null characters `\\u0000` are appended to this string builder until its length is less
than the [newLength].\n
 * Note that in Kotlin/JS [set] operator function has non-constant execution time
complexity.\n
 * Therefore, increasing length of this string builder and then updating each character by index may
slow down your program.\n
 */\n
 * @throws
IndexOutOfBoundsException or [IllegalArgumentException] if [newLength] is less than zero.\n
 */\n
@SinceKotlin("1.4")\n @WasExperimental(ExperimentalStdlibApi::class)\n actual fun setLength(newLength:
Int) {\n     if (newLength < 0) {\n         throw IllegalArgumentException("Negative new length:
$newLength.")\n     }\n     if (newLength <= length) {\n         string = string.substring(0, newLength)\n     }
else {\n         for (i in length until newLength) {\n             string += "\\u0000"\n         }\n     }\n\n /**\n
 * Returns a new [String] that contains characters in this string builder at [startIndex] (inclusive) and up to the
[length] (exclusive).\n *\n
 * @throws IndexOutOfBoundsException if [startIndex] is less than zero or greater
than the length of this string builder.\n
 */\n
@SinceKotlin("1.4")\n
@WasExperimental(ExperimentalStdlibApi::class)\n actual fun substring(startIndex: Int):
String {\n     AbstractList.checkPositionIndex(startIndex, length)\n     return string.substring(startIndex)\n
}\n\n /**\n
 * Returns a new [String] that contains characters in this string builder at [startIndex] (inclusive) and
up to the [endIndex] (exclusive).\n *\n
 * @throws IndexOutOfBoundsException or

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[IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this string builder indices or when
`startIndex > endIndex`.
 *^ @SinceKotlin("1.4") @WasExperimental(ExperimentalStdlibApi::class)
 actual fun substring(startIndex: Int, endIndex: Int): String {
     AbstractList.checkBoundsIndexes(startIndex,
     endIndex, length)
     return string.substring(startIndex, endIndex)
 }
 /**
  * Attempts to reduce
  storage used for this string builder.
  * If the backing storage of this string builder is larger than necessary
  to hold its current contents,
  * then it may be resized to become more
  space efficient.
  * Calling this method may, but is not required to, affect the value of the [capacity] property.
  * In Kotlin/JS implementation of StringBuilder the size of the backing storage is always equal to the length of
  the string builder.
  *^ @SinceKotlin("1.4") @WasExperimental(ExperimentalStdlibApi::class)
  actual fun trimToSize() {}
  override fun toString(): String = string
  /**
  * Clears the content of
  this string builder making it empty and returns this instance.
  * @sample
  samples.text.Strings.clearStringBuilder
  *^ @SinceKotlin("1.3") public fun clear(): StringBuilder {
     string = ""
     return this
 }
 /**
  * Sets the character at the specified [index] to the specified
  [value].
  * @throws IndexOutOfBoundsException if [index] is out of bounds of this string builder.
  *^ @SinceKotlin("1.4") @WasExperimental(ExperimentalStdlibApi::class)
  public operator fun set(index: Int, value: Char) {
     AbstractList.checkElementIndex(index, length)
     string = string.substring(0, index) + value + string.substring(index + 1)
 }
 /**
  * Replaces characters in
  the specified range of this string builder with characters in the specified string [value] and returns this instance.
  * @param startIndex the beginning (inclusive) of the range to replace.
  * @param endIndex the end
  (exclusive) of the range to replace.
  * @param value the string to replace with.
  * @throws
  IndexOutOfBoundsException or [IllegalArgumentException] if [startIndex] is less than zero, greater than the length
  of this string builder, or `startIndex > endIndex`.
  *^ @SinceKotlin("1.4")
  @WasExperimental(ExperimentalStdlibApi::class) public fun setRange(startIndex: Int, endIndex: Int, value:
  String): StringBuilder {
     checkReplaceRange(startIndex, endIndex, length)
     this.string = this.string.substring(0, startIndex) + value + this.string.substring(endIndex)
     return this
 }
 private fun checkReplaceRange(startIndex: Int, endIndex: Int, length: Int) {
     if (startIndex < 0 ||
     startIndex > length) {
         throw IndexOutOfBoundsException("startIndex: $startIndex, length: $length")
     }
     if (startIndex > endIndex) {
         throw IllegalArgumentException("startIndex($startIndex) >
     endIndex($endIndex)")
     }
 }
 /**
  * Removes the character at the specified [index] from this string
  builder and returns this instance.
  * If the `Char` at the specified [index] is part of a supplementary code
  point, this method does not remove the entire supplementary character.
  * @param index the index of
  `Char` to remove.
  * @throws IndexOutOfBoundsException if [index] is out of bounds of this string
  builder.
  *^ @SinceKotlin("1.4")
  @WasExperimental(ExperimentalStdlibApi::class) public fun deleteAt(index: Int): StringBuilder {
     AbstractList.checkElementIndex(index, length)
     string = string.substring(0, index) + string.substring(index +
     1)
     return this
 }
 /**
  * Removes characters in the specified range from this string builder and
  returns this instance.
  * @param startIndex the beginning (inclusive) of the range to remove.
  *
  * @param endIndex the end (exclusive) of the range to remove.
  * @throws IndexOutOfBoundsException
  or [IllegalArgumentException] when [startIndex] is out of range of this string builder indices or when `startIndex >
  endIndex`.
  *^ @SinceKotlin("1.4") @WasExperimental(ExperimentalStdlibApi::class) public fun
  deleteRange(startIndex: Int, endIndex: Int): StringBuilder {
     checkReplaceRange(startIndex, endIndex,
     length)
     string = string.substring(0, startIndex) + string.substring(endIndex)
     return this
 }
 /**
  * Copies characters from this string builder into the [destination] character
  array.
  * @param destination the array to copy to.
  * @param destinationOffset the position in the
  array to copy to, 0 by default.
  * @param startIndex the beginning (inclusive) of the range to copy, 0 by
  default.
  * @param endIndex the end (exclusive) of the range to copy, length of this string builder by default.
  * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is
  out of range of this string builder indices or when `startIndex > endIndex`.
  * @throws

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IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified
[destinationOffset],\n * or when that index is out of the [destination] array indices range.\n */\n
@SinceKotlin("1.4")\n @WasExperimental(ExperimentalStdlibApi::class)\n public
fun toCharArray(destination: CharArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = this.length)
{\n    AbstractList.checkBoundsIndexes(startIndex, endIndex, length)\n
AbstractList.checkBoundsIndexes(destinationOffset, destinationOffset + endIndex - startIndex, destination.size)\n\n
    var dstIndex = destinationOffset\n    for (index in startIndex until endIndex) {\n        destination[dstIndex++]
= string[index]\n    }\n\n    /**\n * Appends characters in a subarray of the specified character array
[value] to this string builder and returns this instance.\n * Characters are appended in order, starting at
specified [startIndex].\n * @param value the array from which characters are appended.\n * @param
startIndex the beginning (inclusive) of the subarray to append.\n * @param endIndex the end (exclusive) of the
subarray to append.\n * @throws IndexOutOfBoundsException or [IllegalArgumentException]
when [startIndex] or [endIndex] is out of range of the [value] array indices or when `startIndex > endIndex`.\n
*/\n @SinceKotlin("1.4")\n @WasExperimental(ExperimentalStdlibApi::class)\n public fun
appendRange(value: CharArray, startIndex: Int, endIndex: Int): StringBuilder {\n    string +=
value.concatToString(startIndex, endIndex)\n    return this\n }\n\n /**\n * Appends a subsequence of the
specified character sequence [value] to this string builder and returns this instance.\n * @param value the
character sequence from which a subsequence is appended.\n * @param startIndex the beginning (inclusive) of
the subsequence to append.\n * @param endIndex the end (exclusive) of the subsequence to append.\n * @throws
IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of
range of the [value] character sequence indices or when `startIndex > endIndex`.\n */\n @SinceKotlin("1.4")\n
@WasExperimental(ExperimentalStdlibApi::class)\n public fun appendRange(value: CharSequence, startIndex:
Int, endIndex: Int): StringBuilder {\n    val stringCsq = value.toString()\n
AbstractList.checkBoundsIndexes(startIndex, endIndex, stringCsq.length)\n\n    string +=
stringCsq.substring(startIndex, endIndex)\n    return this\n }\n\n /**\n * Inserts characters in a subarray of
the specified character array [value] into this string builder at the specified [index] and returns this instance.\n
* The inserted characters go in same order as in the [value] array, starting at [index].\n * @param index
the position in this string builder to insert at.\n * @param value the array from which characters are inserted.\n
* @param startIndex the beginning (inclusive) of the subarray to insert.\n * @param endIndex the end (exclusive)
of the subarray to insert.\n * @throws IndexOutOfBoundsException
or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] array indices or when
`startIndex > endIndex`.\n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the
length of this string builder.\n */\n @SinceKotlin("1.4")\n
@WasExperimental(ExperimentalStdlibApi::class)\n public fun insertRange(index: Int, value: CharArray,
startIndex: Int, endIndex: Int): StringBuilder {\n    AbstractList.checkPositionIndex(index, this.length)\n\n
string = string.substring(0, index) + value.concatToString(startIndex, endIndex) + string.substring(index)\n
return this\n }\n\n /**\n * Inserts characters in a subsequence of the specified character sequence [value] into
this string builder at the specified [index] and returns this instance.\n * The inserted characters go in the
same order as in the [value] character sequence, starting at [index].\n * @param index the position
in this string builder to insert at.\n * @param value the character sequence from which a subsequence is
inserted.\n * @param startIndex the beginning (inclusive) of the subsequence to insert.\n * @param endIndex
the end (exclusive) of the subsequence to insert.\n * @throws IndexOutOfBoundsException or
[IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence
indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException if [index] is less than zero or
greater than the length of this string builder.\n */\n @SinceKotlin("1.4")\n
@WasExperimental(ExperimentalStdlibApi::class)\n public fun insertRange(index: Int, value: CharSequence,
startIndex: Int, endIndex: Int): StringBuilder {\n    AbstractList.checkPositionIndex(index, length)\n\n    val
stringCsq = value.toString()\n    AbstractList.checkBoundsIndexes(startIndex, endIndex, stringCsq.length)\n

```



characters are appended.\n \* @param startIndex the beginning (inclusive) of the subarray to append.\n \* @param endIndex the end (exclusive) of the subarray to append.\n \* \n \* @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] array indices or when `startIndex > endIndex`.\n

```

*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress("EXTENSION_SHA
DOWED_BY_MEMBER",
"NOTHING_TO_INLINE")\npublic actual inline fun StringBuilder.appendRange(value: CharArray, startIndex:
Int, endIndex: Int): StringBuilder =\n    this.appendRange(value, startIndex, endIndex)\n\n/**\n * Appends a
subsequence of the specified character sequence [value] to this string builder and returns this instance.\n * \n *
@param value the character sequence from which a subsequence is appended.\n * @param startIndex the beginning
(inclusive) of the subsequence to append.\n * @param endIndex the end (exclusive) of the subsequence to append.\n
*\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out
of range of the [value] character sequence indices or when `startIndex > endIndex`.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress("EXTENSION_SHA
DOWED_BY_MEMBER", "NOTHING_TO_INLINE")\npublic actual inline fun
StringBuilder.appendRange(value: CharSequence, startIndex: Int, endIndex:
Int): StringBuilder =\n    this.appendRange(value, startIndex, endIndex)\n\n/**\n * Inserts characters in a subarray
of the specified character array [value] into this string builder at the specified [index] and returns this instance.\n
*\n * The inserted characters go in same order as in the [value] array, starting at [index].\n * \n * @param index the
position in this string builder to insert at.\n * @param value the array from which characters are inserted.\n *
@param startIndex the beginning (inclusive) of the subarray to insert.\n * @param endIndex the end (exclusive) of
the subarray to insert.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when
[startIndex] or [endIndex] is out of range of the [value] array indices or when `startIndex > endIndex`.\n *
@throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress("EXTENSION_SHA
DOWED_BY_MEMBER",
"NOTHING_TO_INLINE")\npublic actual inline fun StringBuilder.insertRange(index: Int, value: CharArray,
startIndex: Int, endIndex: Int): StringBuilder =\n    this.insertRange(index, value, startIndex, endIndex)\n\n/**\n *
Inserts characters in a subsequence of the specified character sequence [value] into this string builder at the specified
[index] and returns this instance.\n * \n * The inserted characters go in the same order as in the [value] character
sequence, starting at [index].\n * \n * @param index the position in this string builder to insert at.\n * @param value
the character sequence from which a subsequence is inserted.\n * @param startIndex the beginning (inclusive) of the
subsequence to insert.\n * @param endIndex the end (exclusive) of the subsequence to insert.\n * \n * @throws
IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the
[value] character sequence indices or when `startIndex >
endIndex`.\n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this
string builder.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress("EXTENSION_SHA
DOWED_BY_MEMBER", "NOTHING_TO_INLINE")\npublic actual inline fun
StringBuilder.insertRange(index: Int, value: CharSequence, startIndex: Int, endIndex: Int): StringBuilder =\n\n
this.insertRange(index, value, startIndex, endIndex)\n", /*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n * \n *\npackage kotlin.text\n\n/**\n * Returns `true` if the content of this
string is equal to the word `true`, ignoring case, and `false` otherwise.\n * \n *\n@Deprecated("Use Kotlin compiler
1.4 to avoid deprecation warning.")\n@DeprecatedSinceKotlin(hiddenSince =
"1.4")\n@kotlin.internal.InlineOnly\npublic actual
inline fun String.toBoolean(): Boolean = this.toBoolean()\n\n/**\n * Returns `true` if this string is not `null` and its
content is equal to the word `true`, ignoring case, and `false` otherwise.\n * \n * There are also strict versions of the

```

function available on non-nullable String, [toBooleanStrict] and [toBooleanStrictOrNull].\n

```

*\n@SinceKotlin("1.4")\npublic actual fun String?.toBoolean(): Boolean = this != null && this.lowercase() ==
"true"\n\n/**\n * Parses the string as a signed [Byte] number and returns the result.\n * @throws
NumberFormatException if the string is not a valid representation of a number.\n */\npublic actual fun
String.toByte(): Byte = toByteOrNull() ?: numberFormatError(this)\n\n/**\n * Parses the string as a signed [Byte]
number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a
number.\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n
*/\npublic
actual fun String.toByte(radix: Int): Byte = toByteOrNull(radix) ?: numberFormatError(this)\n\n/**\n * Parses the
string as a [Short] number and returns the result.\n * @throws NumberFormatException if the string is not a valid
representation of a number.\n */\npublic actual fun String.toShort(): Short = toShortOrNull() ?:
numberFormatError(this)\n\n/**\n * Parses the string as a [Short] number and returns the result.\n * @throws
NumberFormatException if the string is not a valid representation of a number.\n * @throws
IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\npublic actual fun
String.toShort(radix: Int): Short = toShortOrNull(radix) ?: numberFormatError(this)\n\n/**\n * Parses the string as
an [Int] number and returns the result.\n * @throws NumberFormatException if the string is not a valid
representation of a number.\n */\npublic actual fun String.toInt(): Int = toIntOrNull() ?:
numberFormatError(this)\n\n/**\n * Parses the
string as an [Int] number and returns the result.\n * @throws NumberFormatException if the string is not a valid
representation of a number.\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to
number conversion.\n */\npublic actual fun String.toInt(radix: Int): Int = toIntOrNull(radix) ?:
numberFormatError(this)\n\n/**\n * Parses the string as a [Long] number and returns the result.\n * @throws
NumberFormatException if the string is not a valid representation of a number.\n */\npublic actual fun
String.toLong(): Long = toLongOrNull() ?: numberFormatError(this)\n\n/**\n * Parses the string as a [Long]
number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a
number.\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n
*/\npublic actual fun String.toLong(radix: Int): Long = toLongOrNull(radix) ?: numberFormatError(this)\n\n/**\n
 * Parses the string
as a [Double] number and returns the result.\n * @throws NumberFormatException if the string is not a valid
representation of a number.\n */\npublic actual fun String.toDouble(): Double =
+(this.asDynamic()).unsafeCast<Double>().also {\n    if (it.isNaN() && !this.isNaN() || it == 0.0 &&
this.isBlank())\n        numberFormatError(this)\n}\n\n/**\n * Parses the string as a [Float] number and returns the
result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n
*/\n@kotlin.internal.InlineOnly\npublic actual inline fun String.toFloat(): Float =
toDouble().unsafeCast<Float>()\n\n/**\n * Parses the string as a [Double] number and returns the result\n * or `null`
if the string is not a valid representation of a number.\n */\npublic actual fun String.toDoubleOrNull(): Double? =
+(this.asDynamic()).unsafeCast<Double>().takeIf {\n    !(it.isNaN() && !this.isNaN() || it == 0.0 &&
this.isBlank())\n}\n\n/**\n * Parses the string as a [Float] number
and returns the result\n * or `null` if the string is not a valid representation of a number.\n
*/\n@kotlin.internal.InlineOnly\npublic actual inline fun String.toFloatOrNull(): Float? =
toDoubleOrNull().unsafeCast<Float?>()\n\n/**\n * Returns a string representation of this [Byte] value in the
specified [radix].\n * @throws IllegalArgumentException when [radix] is not a valid radix for number to string
conversion.\n */\n@SinceKotlin("1.2")\n@kotlin.internal.InlineOnly\npublic actual inline fun Byte.toString(radix:
Int): String = this.toInt().toString(radix)\n\n/**\n * Returns a string representation of this [Short] value in the
specified [radix].\n * @throws IllegalArgumentException when [radix] is not a valid radix for number to string
conversion.\n */\n@SinceKotlin("1.2")\n@kotlin.internal.InlineOnly\npublic actual inline fun Short.toString(radix:
Int): String = this.toInt().toString(radix)\n\n/**\n * Returns a string representation of this [Int] value in the specified

```

```

[radix].\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for number to string
conversion.\n *\n @SinceKotlin("1.2")\npublic actual fun Int.toString(radix: Int): String =
asDynamic().toString(checkRadix(radix))\n\nprivate fun String.isNaN(): Boolean = when (this.lowercase()) {\n
\n"nan", "+nan", "-nan" -> true\n else -> false\n}\n\n/**\n * Checks whether the given [radix] is valid radix for
string to number and number to string conversion.\n *\n @PublishedApi\ninternal actual fun checkRadix(radix: Int):
Int {\n if (radix !in 2..36) {\n throw IllegalArgumentException("\radix $radix was not in valid range 2..36")\n
}\n return radix\n}\n\ninternal actual fun digitOf(char: Char, radix: Int): Int = when {\n char >= '0' && char <=
'9' -> char - '0'\n char >= 'A' && char <= 'Z' -> char - 'A' + 10\n char >= 'a' && char <= 'z' -> char - 'a' + 10\n
char < '\u0080' -> -1\n char >= '\uFF21' && char <= '\uFF3A' -> char - '\uFF21'
+ 10 // full-width latin capital letter\n char >= '\uFF41' && char <= '\uFF5A' -> char - '\uFF41' + 10 // full-width
latin small letter\n else -> char.digitToIntImpl()\n}.let { if (it >= radix) -1 else it }\n", /*\n * Copyright 2010-2021
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n *\n package kotlin.text\nimport
kotlin.js.RegExp\n\n/**\n * Provides enumeration values to use to set regular expression options.\n *\npublic actual
enum class RegexOptions(val value: String) {\n /** Enables case-insensitive matching. *\n
IGNORE_CASE("i"),\n /** Enables multiline mode.\n *\n * In multiline mode the expressions `^` and `$`
match just after or just before,\n * respectively, a line terminator or the end of the input sequence. *\n
MULTILINE("m")\n}\n\nprivate fun Iterable<RegexOption>.toFlags(prepend: String): String
= joinToString("\", prefix = prepend) { it.value }\n\n/**\n * Represents the results from a single capturing group
within a [MatchResult] of [Regex].\n *\n @param value The value of captured group.\n *\npublic actual data
class MatchGroup(actual val value: String)\n\n/**\n * Represents a compiled regular expression.\n * Provides
functions to match strings in text with a pattern, replace the found occurrences and split text around matches.\n *\n *
For pattern syntax reference see [MDN RegExp](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/RegExp#Special_characters_meaning_in_regular_expressions)\n
*\n and\n
[http://www.w3schools.com/jsref/jsref_obj_regexp.asp](https://www.w3schools.com/jsref/jsref_obj_regexp.asp).\n
*\n * Note that `RegExp` objects under the hood are constructed with [the `u` flag](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/RegExp/unicode)\n * that
enables Unicode-related features in regular
expressions. This also makes the pattern syntax more strict,\n * for example, prohibiting unnecessary escape
sequences.\n *\n @constructor Creates a regular expression from the specified [pattern] string and the specified set
of [options].\n *\npublic actual class Regex actual constructor(pattern: String, options: Set<RegexOption>) {\n\n
/** Creates a regular expression from the specified [pattern] string and the specified single [option]. *\n public
actual constructor(pattern: String, option: RegexOption) : this(pattern, setOf(option))\n\n /** Creates a regular
expression from the specified [pattern] string and the default options. *\n public actual constructor(pattern:
String) : this(pattern, emptySet())\n\n /** The pattern string of this regular expression. *\n public actual val
pattern: String = pattern\n\n /** The set of options that were used to create this regular expression. *\n public
actual val options: Set<RegexOption> = options.toSet()\n\n private val nativePattern: RegExp = RegExp(pattern, options.toFlags("gu"))\n private var nativeStickyPattern:
RegExp? = null\n private fun initStickyPattern(): RegExp =\n nativeStickyPattern ?: RegExp(pattern,
options.toFlags("yu")).also { nativeStickyPattern = it }\n\n private var nativeMatchesEntirePattern: RegExp? =
null\n private fun initMatchesEntirePattern(): RegExp =\n nativeMatchesEntirePattern ?: run {\n if
(pattern.startsWith('^') && pattern.endsWith('$'))\n nativePattern\n else\n return
RegExp("^${pattern.trimStart('^').trimEnd('$')}$", options.toFlags("gu"))\n }.also {\n
nativeMatchesEntirePattern = it }\n\n /** Indicates whether the regular expression matches the entire [input].\n
*\n public actual infix fun matches(input: CharSequence): Boolean {\n nativePattern.reset()\n val match
= nativePattern.exec(input.toString())\n return match != null && match.index

```



```

== 0 && nativePattern.lastIndex == input.length\n } \n\n /** Indicates whether the regular expression can find at
least one match in the specified [input]. *\n public actual fun containsMatchIn(input: CharSequence): Boolean {\n
    nativePattern.reset()\n    return nativePattern.test(input.toString())\n } \n\n @SinceKotlin("1.5")\n
@ExperimentalStdlibApi\n public actual fun matchesAt(input: CharSequence, index: Int): Boolean {\n    if
(index < 0 || index > input.length) {\n        throw IndexOutOfBoundsException("index out of bounds: $index,
input length: ${input.length}")\n    }\n    val pattern = initStickyPattern()\n    pattern.lastIndex = index\n
return pattern.test(input.toString())\n } \n\n /**\n * Returns the first match of a regular expression in the
[input], beginning at the specified [startIndex].\n * \n * @param startIndex An index to start search with, by
default 0. Must be not less than zero and
not greater than `input.length()`\n * @return An instance of [MatchResult] if match was found or `null`
otherwise.\n * @throws IndexOutOfBoundsException if [startIndex] is less than zero or greater than the length of
the [input] char sequence.\n * @sample samples.text.Regexps.find\n */\n
@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\n public actual fun find(input:
CharSequence, startIndex: Int = 0): MatchResult? {\n    if (startIndex < 0 || startIndex > input.length) {\n
throw IndexOutOfBoundsException("Start index out of bounds: $startIndex, input length: ${input.length}")\n
}\n    return nativePattern.findNext(input.toString(), startIndex, nativePattern)\n } \n\n /**\n * Returns a
sequence of all occurrences of a regular expression within the [input] string, beginning at the specified
[startIndex].\n * \n * @throws IndexOutOfBoundsException if [startIndex] is less than zero or greater than the
length of the
[input] char sequence.\n * \n * @sample samples.text.Regexps.findAll\n */\n
@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\n public actual fun findAll(input:
CharSequence, startIndex: Int = 0): Sequence<MatchResult> {\n    if (startIndex < 0 || startIndex > input.length)
{\n        throw IndexOutOfBoundsException("Start index out of bounds: $startIndex, input length:
${input.length}")\n    }\n    return generateSequence({ find(input, startIndex) }, { match -> match.next() })\n
}\n\n /**\n * Attempts to match the entire [input] CharSequence against the pattern.\n * \n * @return An
instance of [MatchResult] if the entire input matches or `null` otherwise.\n */\n public actual fun
matchEntire(input: CharSequence): MatchResult? =\n    initMatchesEntirePattern().findNext(input.toString(), 0,
nativePattern)\n\n @SinceKotlin("1.5")\n @ExperimentalStdlibApi\n public actual fun matchAt(input:
CharSequence, index: Int):
MatchResult? {\n    if (index < 0 || index > input.length) {\n        throw IndexOutOfBoundsException("index
out of bounds: $index, input length: ${input.length}")\n    }\n    return
initStickyPattern().findNext(input.toString(), index, nativePattern)\n } \n\n\n /**\n * Replaces all occurrences
of this regular expression in the specified [input] string with specified [replacement] expression.\n * \n * The
replacement string may contain references to the captured groups during a match. Occurrences of `index` \n * in
the replacement string will be substituted with the subsequences corresponding to the captured groups with the
specified index.\n * The first digit after '$' is always treated as part of group reference. Subsequent digits are
incorporated \n * into `index` only if they would form a valid group reference. Only the digits '0'..'9' are considered
as potential components \n * of the group reference. Note that indexes of captured
groups start from 1, and the group with index 0 is the whole match.\n * \n * Backslash character '\\' can be used
to include the succeeding character as a literal in the replacement string, e.g. '\\$` or '\\\\\\`. \n *
[Regex.escapeReplacement] can be used if [replacement] have to be treated as a literal string.\n * \n * Note that
referring named capturing groups by name is currently not supported in Kotlin/JS.\n * However, you can still
refer them by index.\n * \n * @param input the char sequence to find matches of this regular expression in\n
* @param replacement the expression to replace found matches with\n * @return the result of replacing each
occurrence of this regular expression in [input] with the result of evaluating the [replacement] expression\n
* @throws RuntimeException if [replacement] expression is malformed, or capturing group with specified `name` or
`index` does not exist\n */\n public actual fun replace(input: CharSequence,

```

```

replacement: String): String {
    if (!replacement.contains("\\\\") && !replacement.contains('$')) {
        return
input.toString().nativeReplace(nativePattern, replacement)
    }
    return replace(input) {
        substituteGroupRefs(it, replacement)
    }
}

/**
 * Replaces all occurrences of this regular expression in
the specified [input] string with the result of
 * the given function [transform] that takes [MatchResult] and
returns a string to be used as a
 * replacement for that match.
 */
public actual fun replace(input:
CharSequence, transform: (MatchResult) -> CharSequence): String {
    var match = find(input)
    if (match
== null) return input.toString()
    var lastStart = 0
    val length = input.length
    val sb =
StringBuilder(length)
    do {
        val foundMatch = match!!
        sb.append(input, lastStart,
foundMatch.range.start)
        sb.append(transform(foundMatch))
        lastStart = foundMatch.range.endInclusive + 1
        match = foundMatch.next()
    } while (lastStart
< length && match != null)
    if (lastStart < length) {
        sb.append(input, lastStart, length)
    }
    return sb.toString()
}

/**
 * Replaces the first occurrence of this regular expression in the specified
[input] string with specified [replacement] expression.
 * The replacement string may contain references to
the captured groups during a match. Occurrences of ` $index `
 * in the replacement string will be substituted with
the subsequences corresponding to the captured groups with the specified index.
 * The first digit after '$' is
always treated as part of group reference. Subsequent digits are incorporated
 * into `index` only if they would
form a valid group reference. Only the digits '0'..'9' are considered as potential components
 * of the group
reference. Note that indexes
of captured groups start from 1, and the group with index 0 is the whole match.
 * Backslash character '\\'
can be used to include the succeeding character as a literal in the replacement string, e.g, '\\$` or '\\\\`.
 * [Regex.escapeReplacement] can be used if [replacement] have to be treated as a literal string.
 * Note that
referring named capturing groups by name is not supported currently in Kotlin/JS.
 * However, you can still
refer them by index.
 * @param input the char sequence to find a match of this regular expression in
 * @param replacement the expression to replace the found match with
 * @return the result of replacing the first
occurrence of this regular expression in [input] with the result of evaluating the [replacement] expression
 * @throws RuntimeException if [replacement] expression is malformed, or capturing group with specified `name` or
`index` does not exist
 */
public actual fun
replaceFirst(input: CharSequence, replacement: String): String {
    if (!replacement.contains("\\\\") &&
!replacement.contains('$')) {
        val nonGlobalOptions = options.toFlags("u")
        return
input.toString().nativeReplace(RegExp(pattern, nonGlobalOptions), replacement)
    }
    val match =
find(input) ?: return input.toString()
    return buildString {
        append(input.substring(0,
match.range.first))
        append(substituteGroupRefs(match, replacement))
        append(input.substring(match.range.last + 1, input.length))
    }
}

/**
 * Splits the [input]
CharSequence to a list of strings around matches of this regular expression.
 * @param limit Non-negative
value specifying the maximum number of substrings the string can be split to.
 * Zero by default means no limit
is set.
 * @Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")
 */
public actual fun
split(input:
CharSequence, limit: Int = 0): List<String> {
    requireNonNegativeLimit(limit)
    val matches =
findAll(input).let { if (limit == 0) it else it.take(limit - 1) }
    val result = mutableListOf<String>()
    var
lastStart = 0
    for (match in matches) {
        result.add(input.subSequence(lastStart,
match.range.start).toString())
        lastStart = match.range.endInclusive + 1
    }
    result.add(input.subSequence(lastStart, input.length).toString())
    return result
}

/**
 * Splits the
[input] CharSequence to a sequence of strings around matches of this regular expression.
 * @param limit
Non-negative value specifying the maximum number of substrings the string can be split to.
 * Zero by default
means no limit is set.
 * @sample samples.text.Regexps.splitToSequence
 * @SinceKotlin("1.6")
 * @WasExperimental(ExperimentalStdlibApi::class)
 * @Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")
 */

```

```

    public actual fun splitToSequence(input: CharSequence, limit: Int = 0): Sequence<String> {
        requireNonNegativeLimit(limit)
        return sequence {
            var match = find(input)
            if (match == null || limit == 1) {
                yield(input.toString())
                return@sequence
            }
            var nextStart = 0
            var splitCount = 0
            do {
                val foundMatch = match!!
                yield(input.substring(nextStart, foundMatch.range.first))
                nextStart = foundMatch.range.endInclusive + 1
                match = foundMatch.next()
            } while (++splitCount != limit - 1 && match != null)
            yield(input.substring(nextStart, input.length))
        }
    }
}

/**
 * Returns the string representation of this regular expression, namely the [pattern] of this regular expression
 *
 * Note that another regular expression constructed from the same pattern string may have different [options]
 * and may match strings differently.
 */
public override fun toString(): String = nativePattern.toString()

actual companion object {
    /**
     * Returns a regular expression that matches the specified [literal] string literally.
     * No characters of that string will have special meaning when searching for an occurrence of the regular expression.
     */
    public actual fun fromLiteral(literal: String): Regex = Regex(escape(literal))

    /**
     * Returns a regular expression pattern string that matches the specified [literal] string literally.
     * No characters of that string will have special meaning when searching for an occurrence of the regular expression.
     */
    public actual fun escape(literal: String): String = literal.nativeReplace(patternEscape, "\\|\\$&")

    /**
     * Returns a literal replacement expression for the specified [literal] string.
     * No characters of that string will have special meaning when it is used as a replacement string in [Regex.replace] function.
     */
    public actual fun escapeReplacement(literal: String): String = literal.nativeReplace(replacementEscape, "\\|\\$&")

    private val patternEscape = Regex("\\|\\[\\^$*+?.()\\|\\{\\}\\]|\\\"|'")
    private val replacementEscape = Regex("\\|\\\"|'")
    internal fun nativeEscapeReplacement(literal: String): String = literal.nativeReplace(nativeReplacementEscape, "\\$")
    private val nativeReplacementEscape = Regex("\\|\\\"|'")

    private fun Regex.findNext(input: String, from: Int, nextPattern: Regex): MatchResult? {
        this.lastIndex = from
        val match = exec(input)
        if (match == null) return null
        val range = match.index..lastIndex - 1
        return object : MatchResult {
            override val range: IntRange = range
            override val value: String = match[0]!!
            override val groups: MatchGroupCollection = object : MatchGroupCollection, AbstractCollection<MatchGroup?>() {
                override val size: Int = match.length
                override fun iterator(): Iterator<MatchGroup?> = indices.asSequence().map { this[it] }.iterator()
                override fun get(index: Int): MatchGroup? = match[index]?.let { MatchGroup(it) }
            }
            private var groupValues_: List<String?> = null
            override val groupValues: List<String> = get()
            if (groupValues_ == null) {
                groupValues_ = object : AbstractList<String>() {
                    override val size: Int = match.length
                    override fun get(index: Int): String = match[index] ?: ""
                }
            }
            override fun next(): MatchResult? = nextPattern.findNext(input, if (range.isEmpty()) advanceToNextCharacter(range.start) else range.endInclusive + 1, nextPattern)
            private fun advanceToNextCharacter(index: Int): Int {
                if (index < input.lastIndex) {
                    val code1 = input.asDynamic().charCodeAt(index).unsafeCast<Int>()
                    if (code1 in 0xD800..0xDBFF) {
                        val code2 = input.asDynamic().charCodeAt(index + 1).unsafeCast<Int>()
                        if (code2 in 0xDC00..0xDFFF) {
                            return index + 2
                        }
                    }
                }
                return index + 1
            }
        }
    }

    private fun substituteGroupRefs(match: MatchResult, replacement: String): String {
        var index = 0
        val result = StringBuilder(replacement.length)
        while (index < replacement.length) {
            val char = replacement[index++]
            if (char == "\\|") {
                if (index == replacement.length) {
                    throw IllegalArgumentException("The Char to be escaped is missing")
                }
                result.append(replacement[index++])
            } else if (char == "$") {
                if (index == replacement.length) {
                    throw IllegalArgumentException("Capturing group index is

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missing')\n\n        if (replacement[index] == '{')\n            throw IllegalArgumentException("Named capturing
group reference currently is not supported")\n\n        if (replacement[index] !in '0'..'9')\n            throw
IllegalArgumentException("Invalid capturing group reference")\n\n        val endIndex =
replacement.readGroupIndex(index, match.groupValues.size)\n        val groupIndex =
replacement.substring(index, endIndex).toInt()\n        if (groupIndex >= match.groupValues.size)\n            throw IndexOutOfBoundsException("Group with index $groupIndex does not exist")\n\n        result.append(match.groupValues[groupIndex])\n        index = endIndex\n    } else {\n        result.append(char)\n    } }\n    return
result.toString()\n}\n\nprivate fun String.readGroupIndex(startIndex: Int, groupCount: Int): Int {\n    // at least one
digit after '$' is always captured\n    var index = startIndex + 1\n    var groupIndex = this[startIndex] - '0'\n    //
capture the largest valid group index\n    while (index < length && this[index] in '0'..'9') {\n        val newGroupIndex
= (groupIndex * 10) + (this[index] - '0')\n        if (newGroupIndex in 0 until groupCount) {\n            groupIndex =
newGroupIndex\n            index++\n        } else {\n            break\n        }\n    }\n    return index\n}", /*\n * Copyright
2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n @file:kotlin.jvm.JvmMultifileClass\n @file:kotlin.jvm.JvmName("StringsKt")\n @file:Suppress("EXTENSI
ON_SHADOWED_BY_MEMBER")\n\npackage
kotlin.text\n\nimport kotlin.contracts.*\n\n/**\n * A mutable sequence of characters.\n * \n * String builder can be
used to efficiently perform multiple string manipulation operations.\n * \n * expect class StringBuilder : Appendable,
CharSequence {\n *     /** Constructs an empty string builder. */\n     constructor()\n *     /** Constructs an empty string
builder with the specified initial [capacity]. */\n     constructor(capacity: Int)\n *     /** Constructs a string builder that
contains the same characters as the specified [content] char sequence. */\n     constructor(content: CharSequence)\n *     /**
Constructs a string builder that contains the same characters as the specified [content] string. */\n     @SinceKotlin("1.3")\n //
 @ExperimentalStdlibApi\n     constructor(content: String)\n *     override val length:
Int\n *     override operator fun get(index: Int): Char\n *     override fun subSequence(startIndex:
Int, endIndex: Int): CharSequence\n *     override fun append(value: Char): StringBuilder\n *     override fun
append(value: CharSequence?): StringBuilder\n *     override fun append(value: CharSequence?, startIndex: Int,
endIndex: Int): StringBuilder\n *     /**\n *         * Reverses the contents of this string builder and returns this instance.\n
* \n *         * Surrogate pairs included in this string builder are treated as single characters.\n *         * Therefore, the order of
the high-low surrogates is never reversed.\n *         * \n *         * Note that the reverse operation may produce new surrogate
pairs that were unpaired low-surrogates and high-surrogates before the operation.\n *         * For example, reversing
`"\uDC00\uD800"` produces `"\uD800\uDC00"` which is a valid surrogate pair.\n *         * \n *         * fun reverse():
StringBuilder\n *         /**\n *         * Appends the string representation of the specified object [value] to this string builder
and returns this instance.\n *         * \n *         * The overall
effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n *         * and then that
string was appended to this string builder.\n *         * \n *         * fun append(value: Any?): StringBuilder\n *         /**\n *
         * Appends the string representation of the specified boolean [value] to this string builder and returns this instance.\n
*         * \n *         * The overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n
*         * and then that string was appended to this string builder.\n *         * \n *         * @SinceKotlin("1.3")\n *         fun
append(value: Boolean): StringBuilder\n *         /**\n *         * Appends characters in the specified character array [value] to this string
builder and returns this instance.\n *         * \n *         * Characters are appended in order, starting at the index 0.\n *         * \n
*         * @SinceKotlin("1.4")\n *         @WasExperimental(ExperimentalStdlibApi::class)\n *         fun append(value: CharArray):
StringBuilder\n *         /**\n *         * Appends the
specified string [value] to this string builder and returns this instance.\n *         * \n *         * If [value] is `null`, then the four
characters `"\u0000\u0000\u0000\u0000"` are appended.\n *         * \n *         * @SinceKotlin("1.3")\n *         fun
append(value: String?):
StringBuilder\n *         /**\n *         * Returns the current capacity of this string builder.\n *         * \n *         * The capacity is the
maximum length this string builder can have before an allocation occurs.\n *         * \n *         * @SinceKotlin("1.3")\n //
 @ExperimentalStdlibApi\n *         @Deprecated("Obtaining StringBuilder capacity is not supported in JS and common

```



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    * Inserts the string [value] into this string builder at the specified [index] and returns this instance.\n    *\n    * If [value] is `null`, then the four characters `"\u0000\u0000\u0000\u0000"` are inserted.\n    *\n    * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n    */\n    @SinceKotlin("1.4")\n    @WasExperimental(ExperimentalStdlibApi::class)\n    fun insert(index: Int, value: String?): StringBuilder\n    /**\n     * Sets the length of this string builder to the specified [newLength].\n     *\n     * If the [newLength] is less than the current length, it is changed to the specified [newLength].\n     *\n     * Otherwise, null characters `'\u0000'` are appended to this string builder until its length is less than the [newLength].\n     *\n     * Note that in Kotlin/JS [set] operator function has non-constant execution time complexity.\n     *\n     * Therefore, increasing length of this string builder and then updating each character by index may slow down your program.\n     *\n     * @throws IndexOutOfBoundsException or [IllegalArgumentException] if [newLength] is less than zero.\n     */\n    @SinceKotlin("1.4")\n    @WasExperimental(ExperimentalStdlibApi::class)\n    fun setLength(newLength: Int)\n    /**\n     * Returns a new [String] that contains characters in this string builder at [startIndex] (inclusive) and up to the [length] (exclusive).\n     *\n     * @throws IndexOutOfBoundsException if [startIndex] is less than zero or greater than the length of this string builder.\n     */\n    @SinceKotlin("1.4")\n    @WasExperimental(ExperimentalStdlibApi::class)\n    fun substring(startIndex: Int): String\n    /**\n     * Returns a new [String] that contains characters in this string builder at [startIndex] (inclusive) and up to the [endIndex] (exclusive).\n     *\n     * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this string builder indices or when `startIndex > endIndex`.\n     */\n    @SinceKotlin("1.4")\n    @WasExperimental(ExperimentalStdlibApi::class)\n    fun substring(startIndex: Int, endIndex: Int): String\n    /**\n     * Attempts to reduce storage used for this string builder.\n     *\n     * If the backing storage of this string builder is larger than necessary to hold its current contents,\n     *\n     * then it may be resized to become more space efficient.\n     *\n     * Calling this method may, but is not required to, affect the value of the [capacity] property.\n     */\n    @SinceKotlin("1.4")\n    @WasExperimental(ExperimentalStdlibApi::class)\n    fun trimToSize()\n    /**\n     * Clears the content of this string builder making it empty and returns this instance.\n     *\n     * @sample samples.text.Strings.clearStringBuilder\n     */\n    @SinceKotlin("1.3")\n    public expect fun StringBuilder.clear(): StringBuilder\n    /**\n     * Sets the character at the specified [index] to the specified [value].\n     *\n     * @throws IndexOutOfBoundsException if [index] is out of bounds of this string builder.\n     */\n    @SinceKotlin("1.4")\n    @WasExperimental(ExperimentalStdlibApi::class)\n    public expect operator fun StringBuilder.set(index: Int, value: Char)\n    /**\n     * Replaces characters in the specified range of this string builder with characters in the specified string [value] and returns this instance.\n     *\n     * @param startIndex the beginning (inclusive) of the range to replace.\n     * @param endIndex the end (exclusive) of the range to replace.\n     * @param value the string to replace with.\n     *\n     * @throws IndexOutOfBoundsException or [IllegalArgumentException] if [startIndex] is less than zero, greater than the length of this string builder, or `startIndex > endIndex`.\n     */\n    @SinceKotlin("1.4")\n    @WasExperimental(ExperimentalStdlibApi::class)\n    public expect fun StringBuilder.setRange(startIndex: Int, endIndex: Int, value: String): StringBuilder\n    /**\n     * Removes the character at the specified [index] from this string builder and returns this instance.\n     *\n     * If the `Char` at the specified [index] is part of a supplementary code point, this method does not remove the entire supplementary character.\n     *\n     * @param index the index of `Char` to remove.\n     *\n     * @throws IndexOutOfBoundsException if [index] is out of bounds of this string builder.\n     */\n    @SinceKotlin("1.4")\n    @WasExperimental(ExperimentalStdlibApi::class)\n    public expect fun StringBuilder.deleteAt(index: Int): StringBuilder\n    /**\n     * Removes characters in the specified range from this string builder and returns this instance.\n     *\n     * @param startIndex the beginning (inclusive) of the range to remove.\n     * @param endIndex the end (exclusive) of the range to remove.\n     *\n     * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] is out of range of this string builder indices or when `startIndex > endIndex`.\n     */\n    @SinceKotlin("1.4")\n    @WasExperimental(ExperimentalStdlibApi::class)\n    public expect fun

```

`StringBuilder.deleteRange(startIndex: Int, endIndex: Int): StringBuilder`  
Copies characters from this string builder into the [destination] character array.  
@param destination the array to copy to.  
@param destinationOffset the position in the array to copy to, 0 by default.  
@param startIndex the beginning (inclusive) of the range to copy, 0 by default.  
@param endIndex the end (exclusive) of the range to copy, length of this string builder by default.  
@throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this string builder indices or when `startIndex > endIndex`.  
@throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset], or when that index is out of the [destination] array indices range.

`StringBuilder.toCharArray(destination: CharArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = this.length)`  
Appends characters in a subarray of the specified character array [value] to this string builder and returns this instance.  
@param value the array from which characters are appended.  
@param startIndex the beginning (inclusive) of the subarray to append.  
@param endIndex the end (exclusive) of the subarray to append.  
@throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] array indices or when `startIndex > endIndex`.

`StringBuilder.appendRange(value: CharArray, startIndex: Int, endIndex: Int): StringBuilder`  
Appends a subsequence of the specified character sequence [value] to this string builder and returns this instance.  
@param value the character sequence from which a subsequence is appended.  
@param startIndex the beginning (inclusive) of the subsequence to append.  
@param endIndex the end (exclusive) of the subsequence to append.  
@throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.

`StringBuilder.appendRange(value: CharSequence, startIndex: Int, endIndex: Int): StringBuilder`  
Inserts characters in a subarray of the specified character array [value] into this string builder at the specified [index] and returns this instance.  
The inserted characters go in same order as in the [value] array, starting at [index].  
@param index the position in this string builder to insert at.  
@param value the array from which characters are inserted.  
@param startIndex the beginning (inclusive) of the subarray to insert.  
@param endIndex the end (exclusive) of the subarray to insert.  
@throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] array indices or when `startIndex > endIndex`.  
@throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.

`StringBuilder.insertRange(index: Int, value: CharArray, startIndex: Int, endIndex: Int): StringBuilder`  
Inserts characters in a subsequence of the specified character sequence [value] into this string builder at the specified [index] and returns this instance.  
The inserted characters go in the same order as in the [value] character sequence, starting at [index].  
@param index the position in this string builder to insert at.  
@param value the character sequence from which a subsequence is inserted.  
@param startIndex the beginning (inclusive) of the subsequence to insert.  
@param endIndex the end (exclusive) of the subsequence to insert.  
@throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.  
@throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.

`StringBuilder.insertRange(index: Int, value: CharSequence, startIndex: Int, endIndex: Int): StringBuilder`  
@Suppress("EXTENSION\_SHADOWED\_BY\_MEMBER")  
@Deprecated("Use

```

append(value: Any?) instead", ReplaceWith("append(value = obj)"),
DeprecationLevel.WARNING)\n@kotlin.internal.InlineOnly\npublic inline fun StringBuilder.append(obj: Any?):
StringBuilder = this.append(obj)\n\n/**\n * Builds new string by populating newly created [StringBuilder] using
provided [builderAction]\n
 * and then converting it to [String].\n *\n@kotlin.internal.InlineOnly\npublic inline fun buildString(builderAction:
StringBuilder.() -> Unit): String {\n    contract { callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE)
}\n    return StringBuilder().apply(builderAction).toString()\n}\n\n/**\n * Builds new string by populating newly
created [StringBuilder] initialized with the given [capacity]\n * using provided [builderAction] and then converting
it to [String].\n *\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline fun buildString(capacity: Int,
builderAction: StringBuilder.() -> Unit): String {\n    contract { callsInPlace(builderAction,
InvocationKind.EXACTLY_ONCE) }\n    return
StringBuilder(capacity).apply(builderAction).toString()\n}\n\n/**\n * Appends all arguments to the given
StringBuilder.\n *\npublic fun StringBuilder.append(vararg value: String?): StringBuilder {\n    for (item in
value)\n        append(item)\n    return this\n}\n\n/**\n * Appends
all arguments to the given StringBuilder.\n *\npublic fun StringBuilder.append(vararg value: Any?): StringBuilder
{\n    for (item in value)\n        append(item)\n    return this\n}\n\n/**\n * Appends a line feed character (`\n`) to this
StringBuilder. *\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun
StringBuilder.appendLine(): StringBuilder = append("\n")\n\n/**\n * Appends [value] to this [StringBuilder], followed
by a line feed character (`\n`). *\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun
StringBuilder.appendLine(value: CharSequence?): StringBuilder = append(value).appendLine()\n\n/**\n * Appends
[value] to this [StringBuilder], followed by a line feed character (`\n`).
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun StringBuilder.appendLine(value:
String?): StringBuilder = append(value).appendLine()\n\n/**\n * Appends [value] to this [StringBuilder], followed by a
line feed character (`\n`). *\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic
inline fun StringBuilder.appendLine(value: Any?): StringBuilder = append(value).appendLine()\n\n/**\n * Appends
[value] to this [StringBuilder], followed by a line feed character (`\n`).
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun StringBuilder.appendLine(value:
CharArray): StringBuilder = append(value).appendLine()\n\n/**\n * Appends [value] to this [StringBuilder], followed
by a line feed character (`\n`). *\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun
StringBuilder.appendLine(value: Char): StringBuilder = append(value).appendLine()\n\n/**\n * Appends [value] to this
[StringBuilder], followed by a line feed character (`\n`).
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun StringBuilder.appendLine(value:
Boolean): StringBuilder = append(value).appendLine()\n\n"/\n\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source
code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n *\n\npackage
kotlin.text\nimport kotlin.js.RegExp\n\n@kotlin.internal.InlineOnly\ninternal actual inline fun
String.nativeIndexOf(ch: Char, fromIndex: Int): Int = nativeIndexOf(ch.toString(),
fromIndex)\n\n@kotlin.internal.InlineOnly\ninternal actual inline fun String.nativeLastIndexOf(ch: Char,
fromIndex: Int): Int = nativeLastIndexOf(ch.toString(), fromIndex)\n\n/**\n * Returns `true` if this string starts with
the specified prefix.\n *\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\n\npublic
actual fun String.startsWith(prefix: String, ignoreCase: Boolean = false): Boolean {\n    if (!ignoreCase)\n        return
nativeStartsWith(prefix, 0)\n    else\n        return regionMatches(0, prefix, 0, prefix.length, ignoreCase)\n}\n\n/**\n *
Returns `true` if a substring of this string starting at the specified offset [startIndex] starts with the specified prefix.\n
*\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\n\npublic
actual fun String.startsWith(prefix: String, startIndex: Int, ignoreCase: Boolean = false): Boolean {\n    if
(!ignoreCase)\n        return nativeStartsWith(prefix, startIndex)\n    else\n        return regionMatches(startIndex,
prefix, 0, prefix.length, ignoreCase)\n}\n\n/**\n * Returns `true` if this string ends with the specified suffix.\n
*\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\n\npublic actual fun

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String.endsWith(suffix: String, ignoreCase: Boolean = false): Boolean {
    if (!ignoreCase)
        return nativeEndsWith(suffix)
    else
        return regionMatches(length - suffix.length, suffix, 0, suffix.length, ignoreCase)
}
@Deprecated("Use Regex.matches() instead",
ReplaceWith("regex.toRegex().matches(this)"))
@DeprecatedSinceKotlin(warningSince = "1.6")
public fun String.matches(regex: String): Boolean {
    @Suppress("DEPRECATION")
    val result = this.match(regex)
    return result != null
}
&& result.size != 0
}
/**
 * Returns `true` if this string is empty or consists solely of whitespace characters.
 */
@sample samples.text.Strings.stringIsBlank
*/
public actual fun CharSequence.isBlank(): Boolean = length == 0 || indices.all { this[it].isWhitespace() }
}
/**
 * Returns `true` if this string is equal to [other], optionally ignoring character case.
 * Two strings are considered to be equal if they have the same length and the same character at the same index.
 * If [ignoreCase] is true, the result of `Char.toUpperCaseChar().toLowerCaseChar()` on each character is compared.
 * @param ignoreCase `true` to ignore character case when comparing strings. By default `false`.
 */
@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")
public actual fun String?.equals(other: String?, ignoreCase: Boolean = false): Boolean {
    if (this == null) return other == null
    if (other == null) return false
    if (!ignoreCase) return this == other
    if (this.length != other.length) return false
    for (index in 0 until this.length) {
        val thisChar = this[index]
        val otherChar = other[index]
        if (!thisChar.equals(otherChar, ignoreCase)) {
            return false
        }
    }
    return true
}
@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")
public actual fun CharSequence.regionMatches(thisOffset: Int, other: CharSequence, otherOffset: Int, length: Int, ignoreCase: Boolean = false): Boolean =
    regionMatchesImpl(thisOffset, other, otherOffset, length, ignoreCase)
}
/**
 * Returns a copy of this string having its first letter titlecased using the rules of the default locale, or the original string if it's empty or already starts with a title case letter.
 * The title case of a character is usually the same as its upper case with several exceptions.
 * The particular list of characters with the special title case form depends on the underlying platform.
 * @sample samples.text.Strings.capitalize
 */
@Deprecated("Use replaceFirstChar instead.", ReplaceWith("replaceFirstChar { if (it.isLowerCase()) it.titlecase() else it.toString() }"))
@DeprecatedSinceKotlin(warningSince = "1.5")
public actual fun String.capitalize(): String {
    return if (isEmpty()) substring(0, 1).uppercase() + substring(1) else this
}
/**
 * Returns a copy of this string having its first letter lowercased using the rules of the default locale, or the original string if it's empty or already starts with a lower case letter.
 * @sample samples.text.Strings.decitalize
 */
@Deprecated("Use replaceFirstChar instead.",
ReplaceWith("replaceFirstChar { it.lowercase() }"))
@DeprecatedSinceKotlin(warningSince = "1.5")
public actual fun String.decitalize(): String {
    return if (isEmpty()) substring(0, 1).lowercase() + substring(1) else this
}
}
/**
 * Returns a string containing this char sequence repeated [n] times.
 * @throws [IllegalArgumentException]
 * when n < 0.
 * @sample samples.text.Strings.repeat
 */
public actual fun CharSequence.repeat(n: Int): String {
    require(n >= 0) { "Count 'n' must be non-negative, but was $n." }
    return when (n) {
        0 -> ""
        1 -> this.toString()
        else -> {
            var result = ""
            if (!isEmpty()) {
                var s = this.toString()
                var count = n
                while (true) {
                    if ((count and 1) == 1) {
                        result += s
                    }
                    count = count ushr 1
                    if (count == 0) {
                        break
                    }
                    s += s
                }
            }
            return result
        }
    }
}
}
/**
 * Returns a new string obtained by replacing all occurrences of the [oldValue] substring in this string with the specified [newValue] string.
 * @sample samples.text.Strings.replace
 */
@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")
public actual fun String.replace(oldValue: String, newValue: String, ignoreCase: Boolean = false): String =
    nativeReplace(Regex(Regex.escape(oldValue)), if (ignoreCase) "gui" else "gu"),
    Regex.nativeEscapeReplacement(newValue))
}
/**
 * Returns a new string with all occurrences of [oldChar] replaced with [newChar].
 * @sample samples.text.Strings.replace
 */
@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")
public actual fun

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String.replace(oldChar: Char, newChar: Char, ignoreCase: Boolean = false): String =\n
nativeReplace(RegExp(Regex.escape(oldChar.toString()), if (ignoreCase) \"gui\" else \"gu\"),\n
newChar.toString())\n\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual\nfun String.replaceFirst(oldValue: String, newValue: String, ignoreCase: Boolean = false): String =\n
nativeReplace(RegExp(Regex.escape(oldValue), if (ignoreCase) \"ui\" else \"u\"),\n
Regex.nativeEscapeReplacement(newValue))\n\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGU\n
MENTS\")\npublic\n
actual fun String.replaceFirst(oldChar: Char, newChar: Char, ignoreCase: Boolean = false): String =\n
nativeReplace(RegExp(Regex.escape(oldChar.toString()), if (ignoreCase) \"ui\" else \"u\"),\n
newChar.toString())\n\n\"/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language\n
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the\n
license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/** Returns the negative [size] if [throwOnMalformed] is\n
false, throws [CharacterCodingException] otherwise. *\nprivate fun malformed(size: Int, index: Int,\n
throwOnMalformed: Boolean): Int {\n    if (throwOnMalformed) throw CharacterCodingException(\"Malformed\n
sequence starting at ${index - 1}\")\n    return -size\n}\n\n/**\n * Returns code point corresponding to UTF-16\n
surrogate pair,\n * where the first of the pair is the [high] and the second\n
is in the [string] at the [index].\n * Returns zero if the pair is malformed and [throwOnMalformed] is false.\n *\n * @throws CharacterCodingException if the pair is malformed and [throwOnMalformed] is true.\n *\nprivate fun\n
codePointFromSurrogate(string: String, high: Int, index: Int, endIndex: Int, throwOnMalformed: Boolean): Int {\n
if (high !in 0xD800..0xDBFF || index >= endIndex) {\n    return malformed(0, index, throwOnMalformed)\n } \n
val low = string[index].code\n    if (low !in 0xDC00..0xDFFF) {\n        return malformed(0, index,\n
throwOnMalformed)\n    }\n    return 0x10000 + ((high and 0x3FF) shl 10) or (low and 0x3FF)\n}\n\n/**\n * Returns code point corresponding to UTF-8 sequence of two bytes,\n
* where the first byte of the sequence is the\n
[byte1] and the second byte is in the [bytes] array at the [index].\n * Returns zero if the sequence is malformed and\n
[throwOnMalformed] is false.\n * @throws CharacterCodingException if the sequence of two bytes is\n
malformed and [throwOnMalformed] is true.\n *\nprivate fun codePointFrom2(bytes: ByteArray, byte1: Int, index:\n
Int, endIndex: Int, throwOnMalformed: Boolean): Int {\n    if (byte1 and 0x1E == 0 || index >= endIndex) {\n
return malformed(0, index, throwOnMalformed)\n    }\n    val byte2 = bytes[index].toInt()\n    if (byte2 and 0xC0 !=\n
0x80) {\n        return malformed(0, index, throwOnMalformed)\n    }\n    return (byte1 shl 6) xor byte2 xor\n
0xF8\n}\n\n/**\n * Returns code point corresponding to UTF-8 sequence of three bytes,\n
* where the first byte of the\n
sequence is the [byte1] and the others are in the [bytes] array starting from the [index].\n * Returns a non-\n
positive value indicating number of bytes from [bytes] included in malformed sequence\n * if the sequence is\n
malformed and [throwOnMalformed] is false.\n * @throws CharacterCodingException if the sequence of three\n
bytes is malformed and [throwOnMalformed] is true.\n *\nprivate fun codePointFrom3(bytes: ByteArray,\n
byte1: Int, index: Int, endIndex: Int, throwOnMalformed: Boolean): Int {\n    if (index >= endIndex) {\n        return\n
malformed(0, index, throwOnMalformed)\n    }\n\n    val byte2 = bytes[index].toInt()\n    if (byte1 and 0xF == 0)\n
{\n        if (byte2 and 0xE0 != 0xA0) {\n            // Non-shortest form\n            return malformed(0, index,\n
throwOnMalformed)\n        }\n    } else if (byte1 and 0xF == 0xD) {\n        if (byte2 and 0xE0 != 0x80) {\n            //\n
Surrogate code point\n            return malformed(0, index, throwOnMalformed)\n        }\n    } else if (byte2 and 0xC0\n
!= 0x80) {\n        return malformed(0, index, throwOnMalformed)\n    }\n\n    if (index + 1 == endIndex) {\n
return malformed(1, index, throwOnMalformed)\n    }\n\n    val byte3 = bytes[index + 1].toInt()\n    if (byte3 and\n
0xC0 != 0x80) {\n        return malformed(1, index, throwOnMalformed)\n    }\n\n    return (byte1 shl 12) xor (byte2\n
shl 6) xor byte3 xor -0x1E080\n}\n\n/**\n * Returns code point\n
corresponding to UTF-8 sequence of four bytes,\n
* where the first byte of the sequence is the [byte1] and the\n
others are in the [bytes] array starting from the [index].\n * Returns a non-positive value indicating number of bytes\n
from [bytes] included in malformed sequence\n * if the sequence is malformed and [throwOnMalformed] is false.\n
*\n * @throws CharacterCodingException if the sequence of four bytes is malformed and [throwOnMalformed] is\n
true.\n *\nprivate fun codePointFrom4(bytes: ByteArray, byte1: Int, index: Int, endIndex: Int, throwOnMalformed:\n

```

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Boolean): Int {\n  if (index >= endIndex) {\n    malformed(0, index, throwOnMalformed)\n  }\n  val byte2 =
bytes[index].toInt()\n  if (byte1 and 0xF == 0x0) {\n    if (byte2 and 0xF0 <= 0x80) {\n      // Non-shortest
form\n      return malformed(0, index, throwOnMalformed)\n    } else if (byte1 and 0xF == 0x4) {\n
if (byte2 and 0xF0 != 0x80) {\n      // Out of Unicode code points
domain (larger than U+10FFFF)\n      return malformed(0, index, throwOnMalformed)\n    } else if
(byte1 and 0xF > 0x4) {\n      return malformed(0, index, throwOnMalformed)\n    } else if (byte2 and 0xC0 !=
0x80) {\n      return malformed(0, index, throwOnMalformed)\n    }\n    if (index + 1 == endIndex) {\n      return
malformed(1, index, throwOnMalformed)\n    }\n    val byte3 = bytes[index + 1].toInt()\n    if (byte3 and 0xC0 !=
0x80) {\n      return malformed(1, index, throwOnMalformed)\n    }\n    if (index + 2 == endIndex) {\n      return
malformed(2, index, throwOnMalformed)\n    }\n    val byte4 = bytes[index + 2].toInt()\n    if (byte4 and 0xC0 !=
0x80) {\n      return malformed(2, index, throwOnMalformed)\n    }\n    return (byte1 shl 18) xor (byte2 shl 12) xor
(byte3 shl 6) xor byte4 xor 0x381F80\n  }\n\n**\n * Maximum number of bytes needed to encode a single char.\n
*\n * Code points in `0..0x7F` are encoded in a single byte.\n * Code
points in `0x80..0x7FF` are encoded in two bytes.\n * Code points in `0x800..0xD7FF` or in `0xE000..0xFFFF` are
encoded in three bytes.\n * Surrogate code points in `0xD800..0xDFFF` are not Unicode scalar values, therefore
aren't encoded.\n * Code points in `0x10000..0x10FFFF` are represented by a pair of surrogate `Char`'s and are
encoded in four bytes.\n */\nprivate const val MAX_BYTES_PER_CHAR = 3\n\n**\n * The byte sequence a
malformed UTF-16 char sequence is replaced by.\n */\nprivate val REPLACEMENT_BYTE_SEQUENCE:
ByteArray = arrayOf(0xEF.toByte(), 0xBF.toByte(), 0xBD.toByte())\n\n**\n * Encodes the [string] using
UTF-8 and returns the resulting [ByteArray].\n *\n * @param string the string to encode.\n * @param startIndex the
start offset (inclusive) of the substring to encode.\n * @param endIndex the end offset (exclusive) of the substring to
encode.\n * @param throwOnMalformed whether to throw on malformed char sequence or replace by the
[REPLACEMENT_BYTE_SEQUENCE].\n *\n
* @throws CharacterCodingException if the char sequence is malformed and [throwOnMalformed] is true.\n
*/\ninternal fun encodeUtf8(string: String, startIndex: Int, endIndex: Int, throwOnMalformed: Boolean): ByteArray
{\n  require(startIndex >= 0 && endIndex <= string.length && startIndex <= endIndex)\n  val bytes =
ByteArray((endIndex - startIndex) * MAX_BYTES_PER_CHAR)\n  var byteIndex = 0\n  var charIndex =
startIndex\n\n  while (charIndex < endIndex) {\n    val code = string[charIndex++].code\n    when {\n
code < 0x80 ->\n      bytes[byteIndex++] = code.toByte()\n      code < 0x800 -> {\n
bytes[byteIndex++] = ((code shr 6) or 0xC0).toByte()\n      bytes[byteIndex++] = ((code and 0x3F) or
0x80).toByte()\n      }\n      code < 0xD800 || code >= 0xE000 -> {\n      bytes[byteIndex++] = ((code
shr 12) or 0xE0).toByte()\n      bytes[byteIndex++] = (((code shr 6) and 0x3F) or 0x80).toByte()\n
      bytes[byteIndex++] = ((code and 0x3F) or 0x80).toByte()\n      }\n      else -> { // Surrogate char
value\n      val codePoint = codePointFromSurrogate(string, code, charIndex, endIndex,
throwOnMalformed)\n      if (codePoint <= 0) {\n      bytes[byteIndex++] =
REPLACEMENT_BYTE_SEQUENCE[0]\n      bytes[byteIndex++] =
REPLACEMENT_BYTE_SEQUENCE[1]\n      bytes[byteIndex++] =
REPLACEMENT_BYTE_SEQUENCE[2]\n      } else {\n      bytes[byteIndex++] = ((codePoint shr
18) or 0xF0).toByte()\n      bytes[byteIndex++] = (((codePoint shr 12) and 0x3F) or 0x80).toByte()\n
      bytes[byteIndex++] = (((codePoint shr 6) and 0x3F) or 0x80).toByte()\n      bytes[byteIndex++] =
((codePoint and 0x3F) or 0x80).toByte()\n      charIndex++\n      }\n      }\n      }\n      }\n\n
return if (bytes.size == byteIndex) bytes
else bytes.copyOf(byteIndex)\n}\n\n**\n * The character a malformed UTF-8 byte sequence is replaced by.\n
*/\nprivate const val REPLACEMENT_CHAR = "\\uFFFD"\n\n**\n * Decodes the UTF-8 [bytes] array and returns
the resulting [String].\n *\n * @param bytes the byte array to decode.\n * @param startIndex the start offset
(inclusive) of the array to be decoded.\n * @param endIndex the end offset (exclusive) of the array to be encoded.\n
*\n * @param throwOnMalformed whether to throw on malformed byte sequence or replace by the
[REPLACEMENT_CHAR].\n *\n
* @throws CharacterCodingException if the array is malformed UTF-8 byte

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sequence and [throwOnMalformed] is true.\n */\ninternal fun decodeUtf8(bytes: ByteArray, startIndex: Int,
endIndex: Int, throwOnMalformed: Boolean): String {\n    require(startIndex >= 0 && endIndex <= bytes.size &&
startIndex <= endIndex)\n    var byteIndex = startIndex\n    val stringBuilder = StringBuilder()\n    while
(byteIndex < endIndex) {\n        val byte
= bytes[byteIndex++].toInt()\n        when {\n            byte >= 0 -> {\n                stringBuilder.append(byte.toChar())\n
                byte shr 5 == -2 -> {\n                    val code = codePointFrom2(bytes, byte, byteIndex, endIndex,
throwOnMalformed)\n                    if (code <= 0) {\n                        stringBuilder.append(REPLACEMENT_CHAR)\n
                    byteIndex += -code\n                    } else {\n                        stringBuilder.append(code.toChar())\n
byteIndex += 1\n                    }\n                }\n                byte shr 4 == -2 -> {\n                    val code = codePointFrom3(bytes,
byte, byteIndex, endIndex, throwOnMalformed)\n                    if (code <= 0) {\n
stringBuilder.append(REPLACEMENT_CHAR)\n                    byteIndex += -code\n                    } else {\n
stringBuilder.append(code.toChar())\n                    byteIndex += 2\n                    }\n                }\n                byte shr 3 == -2 -
> {\n
                    val code = codePointFrom4(bytes, byte, byteIndex, endIndex, throwOnMalformed)\n                    if (code <= 0)
{\n                        stringBuilder.append(REPLACEMENT_CHAR)\n                        byteIndex += -code\n                    } else
{\n                        val high = (code - 0x10000) shr 10 or 0xD800\n                        val low = (code and 0x3FF) or
0xDC00\n                        stringBuilder.append(high.toChar())\n                        stringBuilder.append(low.toChar())\n
byteIndex += 3\n                    }\n                }\n                else -> {\n                    malformed(0, byteIndex,
throwOnMalformed)\n                    stringBuilder.append(REPLACEMENT_CHAR)\n                }\n            }\n        }\n    }\n    return stringBuilder.toString()\n}"/\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin\n\n/**\n * Returns the detailed description of this throwable with its stack trace.\n * The detailed description includes:\n * - the short description (see [Throwable.toString]) of this throwable;\n * - the complete stack trace;\n * - detailed
descriptions of the exceptions that were [suppressed][suppressedExceptions] in order to deliver this exception;\n * -
the detailed description of each throwable in the [Throwable.cause] chain.\n */\n@SinceKotlin("1.4")\npublic
actual fun Throwable.stackTraceToString(): String = ExceptionTraceBuilder().buildFor(this)\n\n/**\n * Prints the
[Detailed description][Throwable.stackTraceToString] of this throwable to console error output.\n */\n@SinceKotlin("1.4")\npublic actual fun Throwable.printStackTrace() {\n
console.error(this.stackTraceToString())\n}\n\n/**\n * Adds the specified exception to the list of exceptions that
were\n * suppressed in order to deliver this exception.\n */\n@SinceKotlin("1.4")\npublic actual fun
Throwable.addSuppressed(exception:
Throwable) {\n    if (this !== exception) {\n        val suppressed =
this.asDynamic()._suppressed.unsafeCast<MutableList<Throwable>>()\n        if (suppressed == null) {\n
this.asDynamic()._suppressed = mutableListOf(exception)\n        } else {\n            suppressed.add(exception)\n
}\n    }\n}\n\n/**\n * Returns a list of all exceptions that were suppressed in order to deliver this exception.\n */\n@SinceKotlin("1.4")\npublic actual val Throwable.suppressedExceptions: List<Throwable>\n    get() {\n
return this.asDynamic()._suppressed?.unsafeCast<List<Throwable>>() ?: emptyList()\n    }\n\nprivate class
ExceptionTraceBuilder {\n    private val target = StringBuilder()\n    private val visited = arrayOf<Throwable>()\n
private var topStack: String = ""\n    private var topStackStart: Int = 0\n    fun buildFor(exception: Throwable):
String {\n        exception.dumpFullTrace("", "")\n        return target.toString()\n    }\n\n    private fun
hasSeen(exception: Throwable): Boolean = visited.any { it === exception }\n    private fun
Throwable.dumpFullTrace(indent: String, qualifier: String) {\n        this.dumpSelfTrace(indent, qualifier) ||
return\n        var cause = this.cause\n        while (cause != null) {\n            cause.dumpSelfTrace(indent, "Caused
by: ") || return\n            cause = cause.cause\n        }\n    }\n\n    private fun Throwable.dumpSelfTrace(indent:
String, qualifier: String): Boolean {\n        target.append(indent).append(qualifier)\n        val shortInfo =
this.toString()\n        if (hasSeen(this)) {\n            target.append("[CIRCULAR REFERENCE, SEE ABOVE:
").append(shortInfo).append("\\n")\n            return false\n        }\n        visited.asDynamic().push(this)\n        var

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stack = this.asDynamic().stack as String?
if (stack != null) {
    val stackStart = stack.indexOf(shortInfo).let { if (it < 0) 0 else it + shortInfo.length }
    if (stackStart == 0) target.append(shortInfo).append("\n")
    if (topStack.isEmpty()) {
        topStack = stack
        topStackStart = stackStart
    } else {
        stack = dropCommonFrames(stack, stackStart)
    }
    if (indent.isNotEmpty()) {
        // indent stack, but avoid indenting exception message lines
        val messageLines = if (stackStart == 0) 0 else 1 + shortInfo.count { c -> c == '\n' }
        stack.lineSequence().forEachIndexed { index: Int, line: String ->
            if (index >= messageLines) target.append(indent)
            target.append(line).append("\n")
        }
    } else {
        target.append(stack).append("\n")
    }
    if (suppressed.isNotEmpty()) {
        val suppressedIndent = indent + "  "
        for (s in suppressed) {
            s.dumpFullTrace(suppressedIndent, "Suppressed: ")
        }
        return true
    }
}

private fun dropCommonFrames(stack: String, stackStart: Int): String {
    var commonFrames: Int = 0
    var lastBreak: Int = 0
    var preLastBreak: Int = 0
    for (pos in 0 until minOf(topStack.length - topStackStart, stack.length - stackStart)) {
        val c = stack[stack.lastIndex - pos]
        if (c != topStack[topStack.lastIndex - pos]) {
            break
        }
        if (c == '\n') {
            commonFrames += 1
            preLastBreak = lastBreak
            lastBreak = pos
        }
    }
    if (commonFrames <= 1) return stack
    while (preLastBreak > 0 && stack[stack.lastIndex - (preLastBreak - 1)] == ' ') {
        preLastBreak -= 1
    }
    // leave 1 common frame to ease matching with the top exception
    return stack.dropLast(preLastBreak) + "... and ${commonFrames - 1} more common stack frames skipped"
}

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 */
package kotlin.time
import kotlin.js.json
import kotlin.math.*
internal actual inline val durationAssertionsEnabled: Boolean get() = true
internal actual fun formatToExactDecimals(value: Double, decimals: Int): String {
    val rounded = if (decimals == 0) {
        value
    } else {
        val pow = 10.0.pow(decimals)
        JsMath.round(abs(value) * pow) / pow * sign(value)
    }
    return if (abs(rounded) < 1e21) {
        // toFixed switches to scientific format after 1e21
        rounded.asDynamic().toFixed(decimals).unsafeCast<String>()
    } else {
        // toPrecision outputs the specified number of digits, but only for positive numbers
        val positive = abs(rounded)
        val positiveString = positive.asDynamic().toPrecision(ceil(log10(positive)) + decimals).unsafeCast<String>()
        if (rounded < 0) "-" + positiveString
        else positiveString
    }
}
internal actual fun formatUpToDecimals(value: Double, decimals: Int): String {
    return value.asDynamic().toLocaleString("en-us", json("maximumFractionDigits" to decimals)).unsafeCast<String>()
}

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 */
package kotlin.time
@SinceKotlin("1.6")
@WasExperimental(ExperimentalTime::class)
public actual enum class DurationUnit(internal val scale: Double) {
    /**
     * Time unit representing one nanosecond, which is 1/1000 of a microsecond.
     */
    NANOSECONDS(1e0),
    /**
     * Time unit representing one microsecond, which is 1/1000 of a millisecond.
     */
    MICROSECONDS(1e3),
    /**
     * Time unit representing one millisecond, which is 1/1000 of a second.
     */
    MILLISECONDS(1e6),
    /**
     * Time unit representing one second.
     */
    SECONDS(1e9),
    /**
     * Time unit representing one minute.
     */
    MINUTES(60e9),
    /**
     * Time unit representing one hour.
     */
    HOURS(3600e9),
    /**
     * Time unit representing one day, which is always equal to 24 hours.
     */
    DAYS(86400e9)
}
internal actual fun convertDurationUnit(value: Double, sourceUnit: DurationUnit, targetUnit: DurationUnit): Double {
    val sourceCompareTarget = sourceUnit.scale.compareTo(targetUnit.scale)
    return when {
        sourceCompareTarget > 0 -> value *

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(sourceUnit.scale / targetUnit.scale)\n    sourceCompareTarget < 0 -> value / (targetUnit.scale /
sourceUnit.scale)\n    else -> value\n
}\n}\n\n@SinceKotlin("1.5")\ninternal actual fun convertDurationUnitOverflow(value: Long, sourceUnit:
DurationUnit, targetUnit: DurationUnit): Long {\n    val sourceCompareTarget =
sourceUnit.scale.compareTo(targetUnit.scale)\n    return when {\n        sourceCompareTarget > 0 -> value *
(sourceUnit.scale / targetUnit.scale).toLong()\n        sourceCompareTarget < 0 -> value / (targetUnit.scale /
sourceUnit.scale).toLong()\n        else -> value\n    }\n}\n}\n\n@SinceKotlin("1.5")\ninternal actual fun
convertDurationUnit(value: Long, sourceUnit: DurationUnit, targetUnit: DurationUnit): Long {\n    val
sourceCompareTarget = sourceUnit.scale.compareTo(targetUnit.scale)\n    return when {\n
sourceCompareTarget > 0 -> {\n        val scale = (sourceUnit.scale / targetUnit.scale).toLong()\n        val result
= value * scale\n        when {\n            result / scale == value -> result\n            value > 0 ->
Long.MAX_VALUE\n            else -> Long.MIN_VALUE\n        }\n    }\n    sourceCompareTarget < 0 -> value / (targetUnit.scale / sourceUnit.scale).toLong()\n
else -> value\n }\n}\n\n"/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin.time\n\nimport org.w3c.performance.GlobalPerformance\nimport
org.w3c.performance.Performance\n\n@SinceKotlin("1.3")\n@ExperimentalTime\ninternal actual object
MonotonicTimeSource : TimeSource {\n    private val actualSource: TimeSource = run {\n        val isNode:
Boolean = js("typeof process !== 'undefined' && process.versions && !!process.versions.node")\n        if
(isNode)\n            HrTimeSource(js("process").unsafeCast<Process>())\n        else\n            js("self").unsafeCast<GlobalPerformance?>()?.performance?.let(::PerformanceTimeSource)\n        ?:
DateNowTimeSource\n    }\n\n    override fun markNow(): TimeMark = actualSource.markNow()\n}\n\ninternal external interface Process
{\n    fun hrtime(time: Array<Double> = definedExternally):
Array<Double>\n}\n\n@SinceKotlin("1.3")\n@ExperimentalTime\ninternal class HrTimeSource(val process:
Process) : TimeSource {\n    override fun markNow(): TimeMark = object : TimeMark() {\n        val startedAt =
process.hrtime()\n        override fun elapsedNow(): Duration =\n            process.hrtime(startedAt).let { (seconds,
nanos) -> seconds.toDuration(DurationUnit.SECONDS) + nanos.toDuration(DurationUnit.NANOSECONDS) }\n    }\n\n    override fun toString(): String =
\n    }\n}\n\n@SinceKotlin("1.3")\n@ExperimentalTime\ninternal class
PerformanceTimeSource(val performance: Performance) : AbstractDoubleTimeSource(unit =
DurationUnit.MILLISECONDS) {\n    override fun read(): Double = performance.now()\n    override fun toString():
String =\n    }\n}\n\n@SinceKotlin("1.3")\n@ExperimentalTime\ninternal
object DateNowTimeSource : AbstractDoubleTimeSource(unit = DurationUnit.MILLISECONDS) {\n    override
fun read(): Double = kotlin.js.Date.now()\n    override fun toString(): String =\n    }\n}\n\n"/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code
is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
kotlinx.dom\n\nimport org.w3c.dom.*\nimport kotlin.contracts.*\n\n/*\n * Creates a new element with the
specified [name].\n * *\n * The element is initialized with the specified [init] function.\n */\n\n@SinceKotlin("1.4")\npublic fun Document.createElement(name: String, init: Element.() -> Unit): Element {\n
    contract { callsInPlace(init, InvocationKind.EXACTLY_ONCE) }\n    return
createElement(name).apply(init)\n}\n\n"/*\n * Appends a newly created element with the specified [name] to this
element.\n *\n * The element is initialized with the specified [init] function.\n */\n\n@SinceKotlin("1.4")\npublic fun
Element.appendChild(name: String, init: Element.() -> Unit): Element {\n    contract { callsInPlace(init,
InvocationKind.EXACTLY_ONCE) }\n    return ownerDocument!!.createElement(name, init).also {
appendChild(it) }\n}\n\n"/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the

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license/LICENSE.txt file.\n \*/\n\npackage kotlinx.dom\n\nimport org.w3c.dom.\*\n\n/\*\* Returns true if the element has the given CSS class style in its 'class' attribute \*/\n@SinceKotlin("1.4")\nfun Element.hasClass(cssClass: String): Boolean = className.matches("\\\\\\"(^.\*\\|s+)\$cssClass(\\|s+.\*)"\\.toRegex())\n\n/\*\*\n \* Adds CSS class to element. Has no effect if all specified classes are already in class attribute of the element\n \* @return true if at least one class has

been added\n \*/\n@SinceKotlin("1.4")\nfun Element.addClass(vararg cssClasses: String): Boolean {\n val missingClasses = cssClasses.filterNot { hasClass(it) }\n if (missingClasses.isNotEmpty()) {\n val presentClasses = className.trim()\n className = buildString {\n append(presentClasses)\n if (!presentClasses.isEmpty()) {\n append(" ")\n }\n missingClasses.joinTo(this, " ")\n }\n return true\n }\n return false\n}\n\n/\*\*\n \* Removes all [cssClasses] from element. Has no effect if all specified classes are missing in class attribute of the element\n \* @return true if at least one class has been removed\n \*/\n@SinceKotlin("1.4")\nfun Element.removeClass(vararg cssClasses: String): Boolean {\n if (cssClasses.any { hasClass(it) }) {\n val toBeRemoved = cssClasses.toSet()\n className = className.trim().split("\\\\|s+\\.toRegex()).filter { it !in toBeRemoved }.joinToString("\\|")\n return true\n }\n return false\n}\n\n"/\*\n \* Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n

\*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("StringsKt")\n\npackage kotlinx.text\n\n/\*\*\n \* Converts the string into a regular expression [Regex] with the default options.\n \*/\n@kotlin.internal.InlineOnly\npublic inline fun String.toRegex(): Regex = Regex(this)\n\n/\*\*\n \* Converts the string into a regular expression [Regex] with the specified single [option].\n \*/\n@kotlin.internal.InlineOnly\npublic inline fun String.toRegex(option: RegexOption): Regex = Regex(this, option)\n\n/\*\*\n \* Converts the string into a regular expression [Regex] with the specified set of [options].\n \*/\n@kotlin.internal.InlineOnly\npublic inline fun String.toRegex(options: Set<RegexOption>): Regex = Regex(this, options)\n\n"/\*\n \* Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n

\*/\n\npackage kotlinx.dom\n\nimport org.w3c.dom.\*\n\n/\*\*\n \* Gets a value indicating whether this node is a TEXT\_NODE or a CDATA\_SECTION\_NODE.\n \*/\n@SinceKotlin("1.4")\npublic val Node.isText: Boolean\n get() = nodeType == Node.TEXT\_NODE || nodeType == Node.CDATA\_SECTION\_NODE\n\n/\*\*\n \* Gets a value indicating whether this node is an [Element].\n \*/\n@SinceKotlin("1.4")\npublic val Node.isElement: Boolean\n get() = nodeType == Node.ELEMENT\_NODE\n\n"/\*\n \* Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n

\*/\n\npackage kotlinx.dom\n\nimport org.w3c.dom.\*\n\n/\*\*\n \* Removes all the children from this node. \*/\n@SinceKotlin("1.4")\npublic fun Node.clear() {\n while (hasChildNodes()) {\n removeChild(firstChild!)\n }\n}\n\n/\*\*\n \* Creates text node and append it to the element.\n \* @return this element\n \*/\n@SinceKotlin("1.4")\nfun Element.appendChild(text: String): Element {\n appendChild(ownerDocument!!.createTextNode(text))\n return this\n}\n\n"/\*\n \* Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n

\*/\n\npackage org.w3c.dom\n\n@Deprecated("Use UnionMessagePortOrWindowProxy instead.")\nReplaceWith("UnionMessagePortOrWindowProxy")\n\ninternal typealias UnionMessagePortOrWindow = UnionMessagePortOrWindowProxy\n\n@Deprecated("Use `as` instead.", ReplaceWith("`as`"))\ninternal var HTMLLinkElement.as\_:\n get() = `as`\n set(value) {\n `as` = value\n }\n\n@Deprecated("Use `is` instead.", ReplaceWith("`is`"))\ninternal var ElementCreationOptions.is\_:\n get() = `is`\n set(value) {\n `is` = value\n }\n\n"/\*\n \* Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n

\*/\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage

```

org.khronos.webgl\n\nimport kotlin.js.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\n\npublic external
interface WebGLContextAttributes {\n    var alpha: Boolean? /* = true */\n        get() = definedExternally\n
set(value) = definedExternally\n    var depth: Boolean? /* = true */\n        get() = definedExternally\n        set(value)
= definedExternally\n    var stencil: Boolean? /* = false */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var antialias: Boolean? /* = true */\n        get() = definedExternally\n        set(value)
= definedExternally\n    var premultipliedAlpha: Boolean? /* = true */\n        get() = definedExternally\n
set(value) = definedExternally\n    var preserveDrawingBuffer: Boolean? /* = false */\n        get() =
definedExternally\n        set(value) = definedExternally\n    var preferLowPowerToHighPerformance: Boolean? /* =
false */\n        get() = definedExternally\n        set(value) = definedExternally\n    var failIfMajorPerformanceCaveat:
Boolean? /* = false */\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun WebGLContextAttributes(alpha:
Boolean? = true, depth: Boolean? = true, stencil: Boolean? = false, antialias: Boolean? = true, premultipliedAlpha:
Boolean? = true, preserveDrawingBuffer: Boolean? = false, preferLowPowerToHighPerformance: Boolean? = false,
failIfMajorPerformanceCaveat: Boolean? = false): WebGLContextAttributes {\n
    val o = js(\"({})\")\n    o[\"alpha\"] = alpha\n    o[\"depth\"] = depth\n    o[\"stencil\"] = stencil\n    o[\"antialias\"] =
antialias\n    o[\"premultipliedAlpha\"] = premultipliedAlpha\n    o[\"preserveDrawingBuffer\"] =
preserveDrawingBuffer\n    o[\"preferLowPowerToHighPerformance\"] = preferLowPowerToHighPerformance\n
    o[\"failIfMajorPerformanceCaveat\"] = failIfMajorPerformanceCaveat\n    return o\n}\n\npublic external abstract
class WebGLObject\n\n/**\n * Exposes the JavaScript
[WebGLBuffer](https://developer.mozilla.org/en/docs/Web/API/WebGLBuffer) to Kotlin\n */\n\npublic external
abstract class WebGLBuffer : WebGLObject\n\n/**\n * Exposes the JavaScript
[WebGLFramebuffer](https://developer.mozilla.org/en/docs/Web/API/WebGLFramebuffer) to Kotlin\n */\n\npublic
external abstract class WebGLFramebuffer : WebGLObject\n\n/**\n * Exposes the JavaScript
[WebGLProgram](https://developer.mozilla.org/en/docs/Web/API/WebGLProgram) to Kotlin\n */\n\npublic external
abstract class WebGLProgram
: WebGLObject\n\n/**\n * Exposes the JavaScript
[WebGLRenderbuffer](https://developer.mozilla.org/en/docs/Web/API/WebGLRenderbuffer) to Kotlin\n */\n\npublic
external abstract class WebGLRenderbuffer : WebGLObject\n\n/**\n * Exposes the JavaScript
[WebGLShader](https://developer.mozilla.org/en/docs/Web/API/WebGLShader) to Kotlin\n */\n\npublic external
abstract class WebGLShader : WebGLObject\n\n/**\n * Exposes the JavaScript
[WebGLTexture](https://developer.mozilla.org/en/docs/Web/API/WebGLTexture) to Kotlin\n */\n\npublic external
abstract class WebGLTexture : WebGLObject\n\n/**\n * Exposes the JavaScript
[WebGLUniformLocation](https://developer.mozilla.org/en/docs/Web/API/WebGLUniformLocation) to Kotlin\n
*/\n\npublic external abstract class WebGLUniformLocation\n\n/**\n * Exposes the JavaScript
[WebGLActiveInfo](https://developer.mozilla.org/en/docs/Web/API/WebGLActiveInfo) to Kotlin\n */\n\npublic
external abstract class WebGLActiveInfo {\n    open val size: Int\n    open val type: Int\n
    open val name: String\n}\n\n/**\n * Exposes the JavaScript
[WebGLShaderPrecisionFormat](https://developer.mozilla.org/en/docs/Web/API/WebGLShaderPrecisionFormat) to
Kotlin\n */\n\npublic external abstract class WebGLShaderPrecisionFormat {\n    open val rangeMin: Int\n    open val
rangeMax: Int\n    open val precision:
Int\n}\n\n\n\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic external interface
WebGLRenderingContextBase {\n    val canvas: HTMLCanvasElement\n    val drawingBufferWidth: Int\n    val
drawingBufferHeight: Int\n    fun getContextAttributes(): WebGLContextAttributes?\n    fun isContextLost():
Boolean\n    fun getSupportedExtensions(): Array<String>?\n    fun getExtension(name: String): dynamic\n    fun
activeTexture(texture: Int)\n    fun attachShader(program: WebGLProgram?, shader: WebGLShader?)\n    fun
bindAttribLocation(program: WebGLProgram?, index: Int, name: String)\n    fun bindBuffer(target: Int, buffer:
WebGLBuffer?)\n    fun bindFramebuffer(target: Int,

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framebuffer: WebGLFramebuffer?)\n fun bindRenderbuffer(target: Int, renderbuffer: WebGLRenderbuffer?)\n
fun bindTexture(target: Int, texture: WebGLTexture?)\n fun blendColor(red: Float, green: Float, blue: Float, alpha:
Float)\n fun blendEquation(mode: Int)\n fun blendEquationSeparate(modeRGB: Int, modeAlpha: Int)\n fun
blendFunc(sfactor: Int, dfactor: Int)\n fun blendFuncSeparate(srcRGB: Int, dstRGB: Int, srcAlpha: Int, dstAlpha:
Int)\n fun bufferData(target: Int, size: Int, usage: Int)\n fun bufferData(target: Int, data: BufferDataSource?,
usage: Int)\n fun bufferSubData(target: Int, offset: Int, data: BufferDataSource?)\n fun
checkFramebufferStatus(target: Int): Int\n fun clear(mask: Int)\n fun clearColor(red: Float, green: Float, blue:
Float, alpha: Float)\n fun clearDepth(depth: Float)\n fun clearStencil(s: Int)\n fun colorMask(red: Boolean,
green: Boolean, blue: Boolean, alpha: Boolean)\n fun compileShader(shader: WebGLShader?)\n
fun compressedTexImage2D(target: Int, level: Int, internalformat: Int, width: Int, height: Int, border: Int, data:
ArrayBufferView)\n fun compressedTexSubImage2D(target: Int, level: Int, xoffset: Int, yoffset: Int, width: Int,
height: Int, format: Int, data: ArrayBufferView)\n fun copyTexImage2D(target: Int, level: Int, internalformat: Int,
x: Int, y: Int, width: Int, height: Int, border: Int)\n fun copyTexSubImage2D(target: Int, level: Int, xoffset: Int,
yoffset: Int, x: Int, y: Int, width: Int, height: Int)\n fun createBuffer(): WebGLBuffer?\n fun createFramebuffer():
WebGLFramebuffer?\n fun createProgram(): WebGLProgram?\n fun createRenderbuffer():
WebGLRenderbuffer?\n fun createShader(type: Int): WebGLShader?\n fun createTexture(): WebGLTexture?\n
fun cullFace(mode: Int)\n fun deleteBuffer(buffer: WebGLBuffer?)\n fun deleteFramebuffer(framebuffer:
WebGLFramebuffer?)\n fun deleteProgram(program: WebGLProgram?)\n fun deleteRenderbuffer(renderbuffer:
WebGLRenderbuffer?)\n fun deleteShader(shader: WebGLShader?)\n fun deleteTexture(texture:
WebGLTexture?)\n fun depthFunc(func: Int)\n fun depthMask(flag: Boolean)\n fun depthRange(zNear: Float,
zFar: Float)\n fun detachShader(program: WebGLProgram?, shader: WebGLShader?)\n fun disable(cap: Int)\n
fun disableVertexArray(index: Int)\n fun drawArrays(mode: Int, first: Int, count: Int)\n fun
drawElements(mode: Int, count: Int, type: Int, offset: Int)\n fun enable(cap: Int)\n fun
enableVertexArray(index: Int)\n fun finish()\n fun flush()\n fun framebufferRenderbuffer(target: Int,
attachment: Int, renderbuffertarget: Int, renderbuffer: WebGLRenderbuffer?)\n fun framebufferTexture2D(target:
Int, attachment: Int, textarget: Int, texture: WebGLTexture?, level: Int)\n fun frontFace(mode: Int)\n fun
generateMipmap(target: Int)\n fun getActiveAttrib(program: WebGLProgram?, index: Int): WebGLActiveInfo?\n
fun getActiveUniform(program:
WebGLProgram?, index: Int): WebGLActiveInfo?\n fun getAttachedShaders(program: WebGLProgram?):
Array<WebGLShader?>\n fun getAttribLocation(program: WebGLProgram?, name: String): Int\n fun
getBufferParameter(target: Int, pname: Int): Any?\n fun getParameter(pname: Int): Any?\n fun getError(): Int\n
fun getFramebufferAttachmentParameter(target: Int, attachment: Int, pname: Int): Any?\n fun
getProgramParameter(program: WebGLProgram?, pname: Int): Any?\n fun getProgramInfoLog(program:
WebGLProgram?): String?\n fun getRenderbufferParameter(target: Int, pname: Int): Any?\n fun
getShaderParameter(shader: WebGLShader?, pname: Int): Any?\n fun getShaderPrecisionFormat(shader: Int,
precisiontype: Int): WebGLShaderPrecisionFormat?\n fun getShaderInfoLog(shader: WebGLShader?): String?\n
fun getShaderSource(shader: WebGLShader?): String?\n fun getTexParameter(target: Int, pname: Int): Any?\n
fun getUniform(program: WebGLProgram?,
location: WebGLUniformLocation?): Any?\n fun getUniformLocation(program: WebGLProgram?, name:
String): WebGLUniformLocation?\n fun getVertexAttrib(index: Int, pname: Int): Any?\n fun
getVertexAttribOffset(index: Int, pname: Int): Int\n fun hint(target: Int, mode: Int)\n fun isBuffer(buffer:
WebGLBuffer?): Boolean\n fun isEnabled(cap: Int): Boolean\n fun isFramebuffer(framebuffer:
WebGLFramebuffer?): Boolean\n fun isProgram(program: WebGLProgram?): Boolean\n fun
isRenderbuffer(renderbuffer: WebGLRenderbuffer?): Boolean\n fun isShader(shader: WebGLShader?): Boolean\n
fun isTexture(texture: WebGLTexture?): Boolean\n fun lineWidth(width: Float)\n fun linkProgram(program:
WebGLProgram?)\n fun pixelStorei(pname: Int, param: Int)\n fun polygonOffset(factor: Float, units: Float)\n
fun readPixels(x: Int, y: Int, width: Int, height: Int, format: Int, type: Int, pixels: ArrayBufferView?)\n fun
renderbufferStorage(target: Int, internalformat: Int,

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width: Int, height: Int)\n fun sampleCoverage(value: Float, invert: Boolean)\n fun scissor(x: Int, y: Int, width:
Int, height: Int)\n fun shaderSource(shader: WebGLShader?, source: String)\n fun stencilFunc(func: Int, ref: Int,
mask: Int)\n fun stencilFuncSeparate(face: Int, func: Int, ref: Int, mask: Int)\n fun stencilMask(mask: Int)\n fun
stencilMaskSeparate(face: Int, mask: Int)\n fun stencilOp(fail: Int, zfail: Int, zpass: Int)\n fun
stencilOpSeparate(face: Int, fail: Int, zfail: Int, zpass: Int)\n fun texImage2D(target: Int, level: Int, internalformat:
Int, width: Int, height: Int, border: Int, format: Int, type: Int, pixels: ArrayBufferView?)\n fun texImage2D(target:
Int, level: Int, internalformat: Int, format: Int, type: Int, source: TexImageSource?)\n fun texParameterf(target: Int,
pname: Int, param: Float)\n fun texParameteri(target: Int, pname: Int, param: Int)\n fun texSubImage2D(target:
Int, level: Int, xoffset: Int, yoffset: Int,
width: Int, height: Int, format: Int, type: Int, pixels: ArrayBufferView?)\n fun texSubImage2D(target: Int, level:
Int, xoffset: Int, yoffset: Int, format: Int, type: Int, source: TexImageSource?)\n fun uniform1f(location:
WebGLUniformLocation?, x: Float)\n fun uniform1fv(location: WebGLUniformLocation?, v: Float32Array)\n
fun uniform1fv(location: WebGLUniformLocation?, v: Array<Float>)\n fun uniform1i(location:
WebGLUniformLocation?, x: Int)\n fun uniform1iv(location: WebGLUniformLocation?, v: Int32Array)\n fun
uniform1iv(location: WebGLUniformLocation?, v: Array<Int>)\n fun uniform2f(location:
WebGLUniformLocation?, x: Float, y: Float)\n fun uniform2fv(location: WebGLUniformLocation?, v:
Float32Array)\n fun uniform2fv(location: WebGLUniformLocation?, v: Array<Float>)\n fun
uniform2i(location: WebGLUniformLocation?, x: Int, y: Int)\n fun uniform2iv(location:
WebGLUniformLocation?, v: Int32Array)\n fun uniform2iv(location: WebGLUniformLocation?,
v: Array<Int>)\n fun uniform3f(location: WebGLUniformLocation?, x: Float, y: Float, z: Float)\n fun
uniform3fv(location: WebGLUniformLocation?, v: Float32Array)\n fun uniform3fv(location:
WebGLUniformLocation?, v: Array<Float>)\n fun uniform3i(location: WebGLUniformLocation?, x: Int, y: Int, z:
Int)\n fun uniform3iv(location: WebGLUniformLocation?, v: Int32Array)\n fun uniform3iv(location:
WebGLUniformLocation?, v: Array<Int>)\n fun uniform4f(location: WebGLUniformLocation?, x: Float, y: Float,
z: Float, w: Float)\n fun uniform4fv(location: WebGLUniformLocation?, v: Float32Array)\n fun
uniform4fv(location: WebGLUniformLocation?, v: Array<Float>)\n fun uniform4i(location:
WebGLUniformLocation?, x: Int, y: Int, z: Int, w: Int)\n fun uniform4iv(location: WebGLUniformLocation?, v:
Int32Array)\n fun uniform4iv(location: WebGLUniformLocation?, v: Array<Int>)\n fun
uniformMatrix2fv(location: WebGLUniformLocation?, transpose: Boolean, value: Float32Array)\n
fun uniformMatrix2fv(location: WebGLUniformLocation?, transpose: Boolean, value: Array<Float>)\n fun
uniformMatrix3fv(location: WebGLUniformLocation?, transpose: Boolean, value: Float32Array)\n fun
uniformMatrix3fv(location: WebGLUniformLocation?, transpose: Boolean, value: Array<Float>)\n fun
uniformMatrix4fv(location: WebGLUniformLocation?, transpose: Boolean, value: Float32Array)\n fun
uniformMatrix4fv(location: WebGLUniformLocation?, transpose: Boolean, value: Array<Float>)\n fun
useProgram(program: WebGLProgram?)\n fun validateProgram(program: WebGLProgram?)\n fun
vertexAttrib1f(index: Int, x: Float)\n fun vertexAttrib1fv(index: Int, values: dynamic)\n fun
vertexAttrib2f(index: Int, x: Float, y: Float)\n fun vertexAttrib2fv(index: Int, values: dynamic)\n fun
vertexAttrib3f(index: Int, x: Float, y: Float, z: Float)\n fun vertexAttrib3fv(index: Int, values: dynamic)\n fun
vertexAttrib4f(index: Int, x: Float, y: Float, z: Float, w: Float)\n
fun vertexAttrib4fv(index: Int, values: dynamic)\n fun vertexAttribPointer(index: Int, size: Int, type: Int,
normalized: Boolean, stride: Int, offset: Int)\n fun viewport(x: Int, y: Int, width: Int, height: Int)\n\n companion
object {\n val DEPTH_BUFFER_BIT: Int\n val STENCIL_BUFFER_BIT: Int\n val
COLOR_BUFFER_BIT: Int\n val POINTS: Int\n val LINES: Int\n val LINE_LOOP: Int\n val
LINE_STRIP: Int\n val TRIANGLES: Int\n val TRIANGLE_STRIP: Int\n val TRIANGLE_FAN:
Int\n val ZERO: Int\n val ONE: Int\n val SRC_COLOR: Int\n val ONE_MINUS_SRC_COLOR:
Int\n val SRC_ALPHA: Int\n val ONE_MINUS_SRC_ALPHA: Int\n val DST_ALPHA: Int\n val
ONE_MINUS_DST_ALPHA: Int\n val DST_COLOR: Int\n val ONE_MINUS_DST_COLOR: Int\n
val SRC_ALPHA_SATURATE: Int\n val FUNC_ADD: Int\n val BLEND_EQUATION: Int\n val

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BLEND\_EQUATION\_RGB: Int\n
     val BLEND\_EQUATION\_ALPHA: Int\n    val FUNC\_SUBTRACT: Int\n    val  
 FUNC\_REVERSE\_SUBTRACT: Int\n    val BLEND\_DST\_RGB: Int\n    val BLEND\_SRC\_RGB: Int\n
 val BLEND\_DST\_ALPHA: Int\n    val BLEND\_SRC\_ALPHA: Int\n    val CONSTANT\_COLOR: Int\n
 val ONE\_MINUS\_CONSTANT\_COLOR: Int\n    val CONSTANT\_ALPHA: Int\n    val  
 ONE\_MINUS\_CONSTANT\_ALPHA: Int\n    val BLEND\_COLOR: Int\n    val ARRAY\_BUFFER: Int\n
 val ELEMENT\_ARRAY\_BUFFER: Int\n    val ARRAY\_BUFFER\_BINDING: Int\n    val  
 ELEMENT\_ARRAY\_BUFFER\_BINDING: Int\n    val STREAM\_DRAW: Int\n    val STATIC\_DRAW: Int\n
     val DYNAMIC\_DRAW: Int\n    val BUFFER\_SIZE: Int\n    val BUFFER\_USAGE: Int\n    val  
 CURRENT\_VERTEX\_ATTRIB: Int\n    val FRONT: Int\n    val BACK: Int\n    val FRONT\_AND\_BACK:  
 Int\n    val CULL\_FACE: Int\n    val BLEND: Int\n    val DITHER: Int\n    val STENCIL\_TEST: Int\n
 val DEPTH\_TEST: Int\n    val  
 SCISSOR\_TEST: Int\n    val POLYGON\_OFFSET\_FILL: Int\n    val SAMPLE\_ALPHA\_TO\_COVERAGE:  
 Int\n    val SAMPLE\_COVERAGE: Int\n    val NO\_ERROR: Int\n    val INVALID\_ENUM: Int\n    val  
 INVALID\_VALUE: Int\n    val INVALID\_OPERATION: Int\n    val OUT\_OF\_MEMORY: Int\n    val CW:  
 Int\n    val CCW: Int\n    val LINE\_WIDTH: Int\n    val ALIASED\_POINT\_SIZE\_RANGE: Int\n    val  
 ALIASED\_LINE\_WIDTH\_RANGE: Int\n    val CULL\_FACE\_MODE: Int\n    val FRONT\_FACE: Int\n
 val DEPTH\_RANGE: Int\n    val DEPTH\_WRITEMASK: Int\n    val DEPTH\_CLEAR\_VALUE: Int\n    val  
 DEPTH\_FUNC: Int\n    val STENCIL\_CLEAR\_VALUE: Int\n    val STENCIL\_FUNC: Int\n    val  
 STENCIL\_FAIL: Int\n    val STENCIL\_PASS\_DEPTH\_FAIL: Int\n    val STENCIL\_PASS\_DEPTH\_PASS:  
 Int\n    val STENCIL\_REF: Int\n    val STENCIL\_VALUE\_MASK: Int\n    val STENCIL\_WRITEMASK:  
 Int\n    val STENCIL\_BACK\_FUNC: Int\n    val STENCIL\_BACK\_FAIL: Int\n
     val STENCIL\_BACK\_PASS\_DEPTH\_FAIL: Int\n    val STENCIL\_BACK\_PASS\_DEPTH\_PASS: Int\n
 val STENCIL\_BACK\_REF: Int\n    val STENCIL\_BACK\_VALUE\_MASK: Int\n    val  
 STENCIL\_BACK\_WRITEMASK: Int\n    val VIEWPORT: Int\n    val SCISSOR\_BOX: Int\n    val  
 COLOR\_CLEAR\_VALUE: Int\n    val COLOR\_WRITEMASK: Int\n    val UNPACK\_ALIGNMENT: Int\n
 val PACK\_ALIGNMENT: Int\n    val MAX\_TEXTURE\_SIZE: Int\n    val MAX\_VIEWPORT\_DIMS: Int\n
     val SUBPIXEL\_BITS: Int\n    val RED\_BITS: Int\n    val GREEN\_BITS: Int\n    val BLUE\_BITS: Int\n
     val ALPHA\_BITS: Int\n    val DEPTH\_BITS: Int\n    val STENCIL\_BITS: Int\n    val  
 POLYGON\_OFFSET\_UNITS: Int\n    val POLYGON\_OFFSET\_FACTOR: Int\n    val  
 TEXTURE\_BINDING\_2D: Int\n    val SAMPLE\_BUFFERS: Int\n    val SAMPLES: Int\n    val  
 SAMPLE\_COVERAGE\_VALUE: Int\n    val SAMPLE\_COVERAGE\_INVERT: Int\n    val  
 COMPRESSED\_TEXTURE\_FORMATS: Int\n    val DONT\_CARE:  
 Int\n    val FASTEST: Int\n    val NICEST: Int\n    val GENERATE\_MIPMAP\_HINT: Int\n    val BYTE:  
 Int\n    val UNSIGNED\_BYTE: Int\n    val SHORT: Int\n    val UNSIGNED\_SHORT: Int\n    val INT:  
 Int\n    val UNSIGNED\_INT: Int\n    val FLOAT: Int\n    val DEPTH\_COMPONENT: Int\n    val  
 ALPHA: Int\n    val RGB: Int\n    val RGBA: Int\n    val LUMINANCE: Int\n    val  
 LUMINANCE\_ALPHA: Int\n    val UNSIGNED\_SHORT\_4\_4\_4\_4: Int\n    val  
 UNSIGNED\_SHORT\_5\_5\_5\_1: Int\n    val UNSIGNED\_SHORT\_5\_6\_5: Int\n    val  
 FRAGMENT\_SHADER: Int\n    val VERTEX\_SHADER: Int\n    val MAX\_VERTEX\_ATTRIBS: Int\n
 val MAX\_VERTEX\_UNIFORM\_VECTORS: Int\n    val MAX\_VARYING\_VECTORS: Int\n    val  
 MAX\_COMBINED\_TEXTURE\_IMAGE\_UNITS: Int\n    val MAX\_VERTEX\_TEXTURE\_IMAGE\_UNITS:  
 Int\n    val MAX\_TEXTURE\_IMAGE\_UNITS: Int\n    val MAX\_FRAGMENT\_UNIFORM\_VECTORS: Int\n
     val SHADER\_TYPE: Int\n    val DELETE\_STATUS:  
 Int\n    val LINK\_STATUS: Int\n    val VALIDATE\_STATUS: Int\n    val ATTACHED\_SHADERS: Int\n
     val ACTIVE\_UNIFORMS: Int\n    val ACTIVE\_ATTRIBUTES: Int\n    val  
 SHADING\_LANGUAGE\_VERSION: Int\n    val CURRENT\_PROGRAM: Int\n    val NEVER: Int\n    val  
 LESS: Int\n    val EQUAL: Int\n    val LEQUAL: Int\n    val GREATER: Int\n    val NOTEQUAL: Int\n

val GEQUAL: Int\n     val ALWAYS: Int\n     val KEEP: Int\n     val REPLACE: Int\n     val INCR: Int\n  
 val DECR: Int\n     val INVERT: Int\n     val INCR\_WRAP: Int\n     val DECR\_WRAP: Int\n     val  
 VENDOR: Int\n     val RENDERER: Int\n     val VERSION: Int\n     val NEAREST: Int\n     val LINEAR:  
 Int\n     val NEAREST\_MIPMAP\_NEAREST: Int\n     val LINEAR\_MIPMAP\_NEAREST: Int\n     val  
 NEAREST\_MIPMAP\_LINEAR: Int\n     val LINEAR\_MIPMAP\_LINEAR: Int\n     val  
 TEXTURE\_MAG\_FILTER: Int\n     val TEXTURE\_MIN\_FILTER: Int\n  
    val TEXTURE\_WRAP\_S: Int\n     val TEXTURE\_WRAP\_T: Int\n     val TEXTURE\_2D: Int\n     val  
 TEXTURE: Int\n     val TEXTURE\_CUBE\_MAP: Int\n     val TEXTURE\_BINDING\_CUBE\_MAP: Int\n  
 val TEXTURE\_CUBE\_MAP\_POSITIVE\_X: Int\n     val TEXTURE\_CUBE\_MAP\_NEGATIVE\_X: Int\n     val  
 TEXTURE\_CUBE\_MAP\_POSITIVE\_Y: Int\n     val TEXTURE\_CUBE\_MAP\_NEGATIVE\_Y: Int\n     val  
 TEXTURE\_CUBE\_MAP\_POSITIVE\_Z: Int\n     val TEXTURE\_CUBE\_MAP\_NEGATIVE\_Z: Int\n     val  
 MAX\_CUBE\_MAP\_TEXTURE\_SIZE: Int\n     val TEXTURE0: Int\n     val TEXTURE1: Int\n     val  
 TEXTURE2: Int\n     val TEXTURE3: Int\n     val TEXTURE4: Int\n     val TEXTURE5: Int\n     val  
 TEXTURE6: Int\n     val TEXTURE7: Int\n     val TEXTURE8: Int\n     val TEXTURE9: Int\n     val  
 TEXTURE10: Int\n     val TEXTURE11: Int\n     val TEXTURE12: Int\n     val TEXTURE13: Int\n     val  
 TEXTURE14: Int\n     val TEXTURE15: Int\n     val TEXTURE16: Int\n     val TEXTURE17:  
 Int\n     val TEXTURE18: Int\n     val TEXTURE19: Int\n     val TEXTURE20: Int\n     val TEXTURE21:  
 Int\n     val TEXTURE22: Int\n     val TEXTURE23: Int\n     val TEXTURE24: Int\n     val TEXTURE25:  
 Int\n     val TEXTURE26: Int\n     val TEXTURE27: Int\n     val TEXTURE28: Int\n     val TEXTURE29:  
 Int\n     val TEXTURE30: Int\n     val TEXTURE31: Int\n     val ACTIVE\_TEXTURE: Int\n     val  
 REPEAT: Int\n     val CLAMP\_TO\_EDGE: Int\n     val MIRRORED\_REPEAT: Int\n     val FLOAT\_VEC2:  
 Int\n     val FLOAT\_VEC3: Int\n     val FLOAT\_VEC4: Int\n     val INT\_VEC2: Int\n     val INT\_VEC3:  
 Int\n     val INT\_VEC4: Int\n     val BOOL: Int\n     val BOOL\_VEC2: Int\n     val BOOL\_VEC3: Int\n  
 val BOOL\_VEC4: Int\n     val FLOAT\_MAT2: Int\n     val FLOAT\_MAT3: Int\n     val FLOAT\_MAT4: Int\n  
    val SAMPLER\_2D: Int\n     val SAMPLER\_CUBE: Int\n     val VERTEX\_ATTRIB\_ARRAY\_ENABLED:  
 Int\n  
    val VERTEX\_ATTRIB\_ARRAY\_SIZE: Int\n     val VERTEX\_ATTRIB\_ARRAY\_STRIDE: Int\n     val  
 VERTEX\_ATTRIB\_ARRAY\_TYPE: Int\n     val VERTEX\_ATTRIB\_ARRAY\_NORMALIZED: Int\n     val  
 VERTEX\_ATTRIB\_ARRAY\_POINTER: Int\n     val VERTEX\_ATTRIB\_ARRAY\_BUFFER\_BINDING: Int\n  
    val IMPLEMENTATION\_COLOR\_READ\_TYPE: Int\n     val  
 IMPLEMENTATION\_COLOR\_READ\_FORMAT: Int\n     val COMPILE\_STATUS: Int\n     val  
 LOW\_FLOAT: Int\n     val MEDIUM\_FLOAT: Int\n     val HIGH\_FLOAT: Int\n     val LOW\_INT: Int\n  
 val MEDIUM\_INT: Int\n     val HIGH\_INT: Int\n     val FRAMEBUFFER: Int\n     val RENDERBUFFER:  
 Int\n     val RGBA4: Int\n     val RGB5\_A1: Int\n     val RGB565: Int\n     val DEPTH\_COMPONENT16:  
 Int\n     val STENCIL\_INDEX: Int\n     val STENCIL\_INDEX8: Int\n     val DEPTH\_STENCIL: Int\n     val  
 RENDERBUFFER\_WIDTH: Int\n     val RENDERBUFFER\_HEIGHT: Int\n     val  
 RENDERBUFFER\_INTERNAL\_FORMAT: Int\n     val RENDERBUFFER\_RED\_SIZE:  
 Int\n     val RENDERBUFFER\_GREEN\_SIZE: Int\n     val RENDERBUFFER\_BLUE\_SIZE: Int\n     val  
 RENDERBUFFER\_ALPHA\_SIZE: Int\n     val RENDERBUFFER\_DEPTH\_SIZE: Int\n     val  
 RENDERBUFFER\_STENCIL\_SIZE: Int\n     val FRAMEBUFFER\_ATTACHMENT\_OBJECT\_TYPE: Int\n  
 val FRAMEBUFFER\_ATTACHMENT\_OBJECT\_NAME: Int\n     val  
 FRAMEBUFFER\_ATTACHMENT\_TEXTURE\_LEVEL: Int\n     val  
 FRAMEBUFFER\_ATTACHMENT\_TEXTURE\_CUBE\_MAP\_FACE: Int\n     val COLOR\_ATTACHMENT0:  
 Int\n     val DEPTH\_ATTACHMENT: Int\n     val STENCIL\_ATTACHMENT: Int\n     val  
 DEPTH\_STENCIL\_ATTACHMENT: Int\n     val NONE: Int\n     val FRAMEBUFFER\_COMPLETE: Int\n  
 val FRAMEBUFFER\_INCOMPLETE\_ATTACHMENT: Int\n     val  
 FRAMEBUFFER\_INCOMPLETE\_MISSING\_ATTACHMENT: Int\n     val  
 FRAMEBUFFER\_INCOMPLETE\_DIMENSIONS: Int\n     val FRAMEBUFFER\_UNSUPPORTED: Int\n



DONT\_CARE: Int\n     val FASTEST: Int\n     val NICEST: Int\n     val GENERATE\_MIPMAP\_HINT: Int\n  
   val BYTE: Int\n     val UNSIGNED\_BYTE: Int\n     val SHORT: Int\n     val UNSIGNED\_SHORT: Int\n  
   val INT: Int\n     val UNSIGNED\_INT: Int\n     val FLOAT: Int\n     val DEPTH\_COMPONENT: Int\n  
val ALPHA: Int\n     val RGB: Int\n     val RGBA: Int\n     val LUMINANCE: Int\n     val  
LUMINANCE\_ALPHA: Int\n     val UNSIGNED\_SHORT\_4\_4\_4\_4: Int\n     val  
UNSIGNED\_SHORT\_5\_5\_5\_1: Int\n     val UNSIGNED\_SHORT\_5\_6\_5: Int\n     val  
FRAGMENT\_SHADER: Int\n     val VERTEX\_SHADER: Int\n     val MAX\_VERTEX\_ATTRIBS: Int\n  
val MAX\_VERTEX\_UNIFORM\_VECTORS: Int\n  
   val MAX\_VARYING\_VECTORS: Int\n     val MAX\_COMBINED\_TEXTURE\_IMAGE\_UNITS: Int\n  
val MAX\_VERTEX\_TEXTURE\_IMAGE\_UNITS: Int\n     val MAX\_TEXTURE\_IMAGE\_UNITS: Int\n     val  
MAX\_FRAGMENT\_UNIFORM\_VECTORS: Int\n     val SHADER\_TYPE: Int\n     val DELETE\_STATUS:  
Int\n     val LINK\_STATUS: Int\n     val VALIDATE\_STATUS: Int\n     val ATTACHED\_SHADERS: Int\n  
   val ACTIVE\_UNIFORMS: Int\n     val ACTIVE\_ATTRIBUTES: Int\n     val  
SHADING\_LANGUAGE\_VERSION: Int\n     val CURRENT\_PROGRAM: Int\n     val NEVER: Int\n     val  
LESS: Int\n     val EQUAL: Int\n     val LEQUAL: Int\n     val GREATER: Int\n     val NOTEQUAL: Int\n  
   val GEQUAL: Int\n     val ALWAYS: Int\n     val KEEP: Int\n     val REPLACE: Int\n     val INCR: Int\n  
   val DECR: Int\n     val INVERT: Int\n     val INCR\_WRAP: Int\n     val DECR\_WRAP: Int\n     val  
VENDOR: Int\n     val RENDERER: Int\n     val VERSION: Int\n     val  
NEAREST: Int\n     val LINEAR: Int\n     val NEAREST\_MIPMAP\_NEAREST: Int\n     val  
LINEAR\_MIPMAP\_NEAREST: Int\n     val NEAREST\_MIPMAP\_LINEAR: Int\n     val  
LINEAR\_MIPMAP\_LINEAR: Int\n     val TEXTURE\_MAG\_FILTER: Int\n     val TEXTURE\_MIN\_FILTER:  
Int\n     val TEXTURE\_WRAP\_S: Int\n     val TEXTURE\_WRAP\_T: Int\n     val TEXTURE\_2D: Int\n  
val TEXTURE: Int\n     val TEXTURE\_CUBE\_MAP: Int\n     val TEXTURE\_BINDING\_CUBE\_MAP: Int\n  
   val TEXTURE\_CUBE\_MAP\_POSITIVE\_X: Int\n     val TEXTURE\_CUBE\_MAP\_NEGATIVE\_X: Int\n  
val TEXTURE\_CUBE\_MAP\_POSITIVE\_Y: Int\n     val TEXTURE\_CUBE\_MAP\_NEGATIVE\_Y: Int\n     val  
TEXTURE\_CUBE\_MAP\_POSITIVE\_Z: Int\n     val TEXTURE\_CUBE\_MAP\_NEGATIVE\_Z: Int\n     val  
MAX\_CUBE\_MAP\_TEXTURE\_SIZE: Int\n     val TEXTURE0: Int\n     val TEXTURE1: Int\n     val  
TEXTURE2: Int\n     val TEXTURE3: Int\n     val TEXTURE4: Int\n     val TEXTURE5: Int\n     val  
TEXTURE6: Int\n     val TEXTURE7:  
Int\n     val TEXTURE8: Int\n     val TEXTURE9: Int\n     val TEXTURE10: Int\n     val TEXTURE11:  
Int\n     val TEXTURE12: Int\n     val TEXTURE13: Int\n     val TEXTURE14: Int\n     val TEXTURE15:  
Int\n     val TEXTURE16: Int\n     val TEXTURE17: Int\n     val TEXTURE18: Int\n     val TEXTURE19:  
Int\n     val TEXTURE20: Int\n     val TEXTURE21: Int\n     val TEXTURE22: Int\n     val TEXTURE23:  
Int\n     val TEXTURE24: Int\n     val TEXTURE25: Int\n     val TEXTURE26: Int\n     val TEXTURE27:  
Int\n     val TEXTURE28: Int\n     val TEXTURE29: Int\n     val TEXTURE30: Int\n     val TEXTURE31:  
Int\n     val ACTIVE\_TEXTURE: Int\n     val REPEAT: Int\n     val CLAMP\_TO\_EDGE: Int\n     val  
MIRRORED\_REPEAT: Int\n     val FLOAT\_VEC2: Int\n     val FLOAT\_VEC3: Int\n     val FLOAT\_VEC4:  
Int\n     val INT\_VEC2: Int\n     val INT\_VEC3: Int\n     val INT\_VEC4: Int\n     val BOOL: Int\n  
   val BOOL\_VEC2: Int\n     val BOOL\_VEC3: Int\n     val BOOL\_VEC4: Int\n     val FLOAT\_MAT2: Int\n  
   val FLOAT\_MAT3: Int\n     val FLOAT\_MAT4: Int\n     val SAMPLER\_2D: Int\n     val  
SAMPLER\_CUBE: Int\n     val VERTEX\_ATTRIB\_ARRAY\_ENABLED: Int\n     val  
VERTEX\_ATTRIB\_ARRAY\_SIZE: Int\n     val VERTEX\_ATTRIB\_ARRAY\_STRIDE: Int\n     val  
VERTEX\_ATTRIB\_ARRAY\_TYPE: Int\n     val VERTEX\_ATTRIB\_ARRAY\_NORMALIZED: Int\n     val  
VERTEX\_ATTRIB\_ARRAY\_POINTER: Int\n     val VERTEX\_ATTRIB\_ARRAY\_BUFFER\_BINDING: Int\n  
   val IMPLEMENTATION\_COLOR\_READ\_TYPE: Int\n     val  
IMPLEMENTATION\_COLOR\_READ\_FORMAT: Int\n     val COMPILE\_STATUS: Int\n     val  
LOW\_FLOAT: Int\n     val MEDIUM\_FLOAT: Int\n     val HIGH\_FLOAT: Int\n     val LOW\_INT: Int\n  
val MEDIUM\_INT: Int\n     val HIGH\_INT: Int\n     val FRAMEBUFFER: Int\n     val RENDERBUFFER:

```

Int\n    val RGBA4: Int\n    val RGB5_A1: Int\n    val RGB565: Int\n    val
DEPTH_COMPONENT16: Int\n    val STENCIL_INDEX: Int\n    val STENCIL_INDEX8: Int\n    val
DEPTH_STENCIL: Int\n    val RENDERBUFFER_WIDTH: Int\n    val RENDERBUFFER_HEIGHT: Int\n
    val RENDERBUFFER_INTERNAL_FORMAT: Int\n    val RENDERBUFFER_RED_SIZE: Int\n    val
RENDERBUFFER_GREEN_SIZE: Int\n    val RENDERBUFFER_BLUE_SIZE: Int\n    val
RENDERBUFFER_ALPHA_SIZE: Int\n    val RENDERBUFFER_DEPTH_SIZE: Int\n    val
RENDERBUFFER_STENCIL_SIZE: Int\n    val FRAMEBUFFER_ATTACHMENT_OBJECT_TYPE: Int\n
val FRAMEBUFFER_ATTACHMENT_OBJECT_NAME: Int\n    val
FRAMEBUFFER_ATTACHMENT_TEXTURE_LEVEL: Int\n    val
FRAMEBUFFER_ATTACHMENT_TEXTURE_CUBE_MAP_FACE: Int\n    val COLOR_ATTACHMENT0:
Int\n    val DEPTH_ATTACHMENT: Int\n    val STENCIL_ATTACHMENT: Int\n    val
DEPTH_STENCIL_ATTACHMENT: Int\n    val NONE: Int\n    val FRAMEBUFFER_COMPLETE: Int\n
val FRAMEBUFFER_INCOMPLETE_ATTACHMENT: Int\n    val
FRAMEBUFFER_INCOMPLETE_MISSING_ATTACHMENT:
Int\n    val FRAMEBUFFER_INCOMPLETE_DIMENSIONS: Int\n    val
FRAMEBUFFER_UNSUPPORTED: Int\n    val FRAMEBUFFER_BINDING: Int\n    val
RENDERBUFFER_BINDING: Int\n    val MAX_RENDERBUFFER_SIZE: Int\n    val
INVALID_FRAMEBUFFER_OPERATION: Int\n    val UNPACK_FLIP_Y_WEBGL: Int\n    val
UNPACK_PREMULTIPLY_ALPHA_WEBGL: Int\n    val CONTEXT_LOST_WEBGL: Int\n    val
UNPACK_COLORSPACE_CONVERSION_WEBGL: Int\n    val BROWSER_DEFAULT_WEBGL: Int\n
}\n}\n\n/**\n * Exposes the JavaScript
[WebGLContextEvent](https://developer.mozilla.org/en/docs/Web/API/WebGLContextEvent) to Kotlin\n
*\npublic external open class WebGLContextEvent(type: String, eventInit: WebGLContextEventInit =
definedExternally) : Event {\n    open val statusMessage: String\n\n    companion object {\n        val NONE: Short\n        val CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n        val BUBBLING_PHASE: Short\n    }\n}\n\npublic external
interface WebGLContextEventInit : EventInit {\n    var statusMessage: String? /* = "" */\n    get() =
definedExternally\n    set(value) = definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun
WebGLContextEventInit(statusMessage: String? = "", bubbles: Boolean? = false, cancelable: Boolean? = false,
composed: Boolean? = false): WebGLContextEventInit {\n    val o = js("{}")\n    o["statusMessage"] =
statusMessage\n    o["bubbles"] = bubbles\n    o["cancelable"] = cancelable\n    o["composed"] = composed\n
return o\n}\n\n/**\n * Exposes the JavaScript
[ArrayBuffer](https://developer.mozilla.org/en/docs/Web/API/ArrayBuffer) to Kotlin\n
*\npublic external open
class ArrayBuffer(length: Int) : BufferDataSource {\n    open val byteLength: Int\n    fun slice(begin: Int, end: Int =
definedExternally): ArrayBuffer\n\n    companion object {\n        fun isView(value: Any?): Boolean\n    }\n}\n\n/**\n
* Exposes the JavaScript [ArrayBufferView](https://developer.mozilla.org/en/docs/Web/API/ArrayBufferView) to
Kotlin\n
*\npublic external interface ArrayBufferView : BufferDataSource {\n    val buffer: ArrayBuffer\n    val
byteOffset: Int\n    val byteLength: Int\n}\n\n/**\n * Exposes the JavaScript
[Int8Array](https://developer.mozilla.org/en/docs/Web/API/Int8Array) to Kotlin\n
*\npublic external open class
Int8Array : ArrayBufferView {\n    constructor(length: Int)\n    constructor(array: Int8Array)\n    constructor(array:
Array<Byte>)\n    constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int =
definedExternally)\n    open val length: Int\n    override val buffer: ArrayBuffer\n    override val byteOffset: Int\n
override val byteLength: Int\n    fun set(array: Int8Array, offset: Int = definedExternally)\n    fun set(array:
Array<Byte>, offset: Int = definedExternally)\n    fun subarray(start: Int, end: Int): Int8Array\n\n    companion
object {\n

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    val BYTES_PER_ELEMENT: Int\n    }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Int8Array.get(index: Int):
Byte = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Int8Array.set(index: Int,
value: Byte) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript
[Uint8Array](https://developer.mozilla.org/en/docs/Web/API/Uint8Array) to Kotlin\n */\npublic external open class
Uint8Array : ArrayBufferView {\n    constructor(length: Int)\n    constructor(array: Uint8Array)\n
constructor(array: Array<Byte>)\n    constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length:
Int = definedExternally)\n    open val length: Int\n    override val buffer: ArrayBuffer\n    override val byteOffset:
Int\n    override val byteLength: Int\n    fun set(array: Uint8Array, offset: Int = definedExternally)\n    fun
set(array: Array<Byte>, offset: Int = definedExternally)\n    fun subarray(start: Int, end: Int): Uint8Array\n\n
companion object {\n    val BYTES_PER_ELEMENT: Int\n
}\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Uint8Array.get(index: Int):
Byte = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Uint8Array.set(index: Int,
value: Byte) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript
[Uint8ClampedArray](https://developer.mozilla.org/en/docs/Web/API/Uint8ClampedArray) to Kotlin\n */\npublic
external open class Uint8ClampedArray : ArrayBufferView {\n    constructor(length: Int)\n    constructor(array:
Uint8ClampedArray)\n    constructor(array: Array<Byte>)\n    constructor(buffer: ArrayBuffer, byteOffset: Int =
definedExternally, length: Int = definedExternally)\n    open val length: Int\n    override val
buffer: ArrayBuffer\n    override val byteOffset: Int\n    override val byteLength: Int\n    fun set(array:
Uint8ClampedArray, offset: Int = definedExternally)\n    fun set(array: Array<Byte>, offset: Int =
definedExternally)\n    fun subarray(start: Int, end: Int): Uint8ClampedArray\n\n    companion object {\n    val
BYTES_PER_ELEMENT: Int\n    }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun
Uint8ClampedArray.get(index: Int): Byte = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun
Uint8ClampedArray.set(index: Int, value: Byte) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript
[Int16Array](https://developer.mozilla.org/en/docs/Web/API/Int16Array) to Kotlin\n */\npublic external open class
Int16Array : ArrayBufferView {\n    constructor(length: Int)\n    constructor(array: Int16Array)\n
constructor(array:
Array<Short>)\n    constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int =
definedExternally)\n    open val length: Int\n    override val buffer: ArrayBuffer\n    override val byteOffset: Int\n
override val byteLength: Int\n    fun set(array: Int16Array, offset: Int = definedExternally)\n    fun set(array:
Array<Short>, offset: Int = definedExternally)\n    fun subarray(start: Int, end: Int): Int16Array\n\n    companion
object {\n    val BYTES_PER_ELEMENT: Int\n    }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Int16Array.get(index: Int):
Short = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Int16Array.set(index: Int,
value: Short) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript
[Uint16Array](https://developer.mozilla.org/en/docs/Web/API/Uint16Array) to Kotlin\n */\npublic
external open class Uint16Array : ArrayBufferView {\n    constructor(length: Int)\n    constructor(array:
Uint16Array)\n    constructor(array: Array<Short>)\n    constructor(buffer: ArrayBuffer, byteOffset: Int =
definedExternally, length: Int = definedExternally)\n    open val length: Int\n    override val buffer: ArrayBuffer\n
override val byteOffset: Int\n    override val byteLength: Int\n    fun set(array: Uint16Array, offset: Int =
definedExternally)\n    fun set(array: Array<Short>, offset: Int = definedExternally)\n    fun subarray(start: Int, end:
Int): Uint16Array\n\n    companion object {\n    val BYTES_PER_ELEMENT: Int\n
}
```



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    }
}

@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")
@kotlin.internal.InlineOnly
public inline operator fun Uint16Array.get(index: Int): Short = asDynamic()[index]

@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")
@kotlin.internal.InlineOnly
public inline operator fun Uint16Array.set(index: Int, value: Short) { asDynamic()[index] = value }

/** Exposes the JavaScript [Int32Array](https://developer.mozilla.org/en/docs/Web/API/Int32Array) to Kotlin */
public external open class Int32Array : ArrayBufferView {
    constructor(length: Int)
    constructor(array: Int32Array)
    constructor(array: Array<Int>)
    constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int = definedExternally)
    open val length: Int
    override val buffer: ArrayBuffer
    override val byteOffset: Int
    override val byteLength: Int
    fun set(array: Int32Array, offset: Int = definedExternally)
    fun set(array: Array<Int>, offset: Int = definedExternally)
    fun subarray(start: Int, end: Int): Int32Array

    companion object {
        val BYTES_PER_ELEMENT: Int
    }
}

@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")
@kotlin.internal.InlineOnly
public inline operator fun Int32Array.get(index: Int): Int = asDynamic()[index]

@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")
@kotlin.internal.InlineOnly
public inline operator fun Int32Array.set(index: Int, value: Int) { asDynamic()[index] = value }

/** Exposes the JavaScript [Uint32Array](https://developer.mozilla.org/en/docs/Web/API/Uint32Array) to Kotlin */
public external open class Uint32Array : ArrayBufferView {
    constructor(length: Int)
    constructor(array: Uint32Array)
    constructor(array: Array<Int>)
    constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int = definedExternally)
    open val length: Int
    override val buffer: ArrayBuffer
    override val byteOffset: Int
    override val byteLength: Int
    fun set(array: Uint32Array, offset: Int = definedExternally)
    fun set(array: Array<Int>, offset: Int = definedExternally)
    fun subarray(start: Int, end: Int): Uint32Array

    companion object {
        val BYTES_PER_ELEMENT: Int
    }
}

@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")
@kotlin.internal.InlineOnly
public inline operator fun Uint32Array.get(index: Int): Int = asDynamic()[index]

@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")
@kotlin.internal.InlineOnly
public inline operator fun Uint32Array.set(index: Int, value: Int) { asDynamic()[index] = value }

/** Exposes the JavaScript [Float32Array](https://developer.mozilla.org/en/docs/Web/API/Float32Array) to Kotlin */
public external open class Float32Array : ArrayBufferView {
    constructor(length: Int)
    constructor(array: Float32Array)
    constructor(array: Array<Float>)
    constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int = definedExternally)
    open val length: Int
    override val buffer: ArrayBuffer
    override val byteOffset: Int
    override val byteLength: Int
    fun set(array: Float32Array, offset: Int = definedExternally)
    fun set(array: Array<Float>, offset: Int = definedExternally)
    fun subarray(start: Int, end: Int): Float32Array

    companion object {
        val BYTES_PER_ELEMENT: Int
    }
}

@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")
@kotlin.internal.InlineOnly
public inline operator fun Float32Array.get(index: Int): Float = asDynamic()[index]

@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")
@kotlin.internal.InlineOnly
public inline operator fun Float32Array.set(index: Int, value: Float) { asDynamic()[index] = value }

/** Exposes the JavaScript [Float64Array](https://developer.mozilla.org/en/docs/Web/API/Float64Array) to Kotlin */
public external open class Float64Array : ArrayBufferView {
    constructor(length: Int)
    constructor(array: Float64Array)
    constructor(array: Array<Double>)
    constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int = definedExternally)
    open val length: Int
    override val buffer: ArrayBuffer
    override val byteOffset: Int
    override val byteLength: Int
    fun set(array: Float64Array, offset: Int = definedExternally)
    fun set(array: Array<Double>, offset: Int = definedExternally)
    fun subarray(start: Int, end: Int): Float64Array

    companion object {
        val BYTES_PER_ELEMENT: Int
    }
}

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    }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Float64Array.get(index: Int):
Double = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Float64Array.set(index: Int,
value: Double) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript
[DataView](https://developer.mozilla.org/en/docs/Web/API/DataView) to Kotlin\n */\npublic external open class
DataView(buffer: ByteBuffer, byteOffset: Int = definedExternally, byteLength: Int = definedExternally) :
ArrayBufferView {\n    override val buffer: ByteBuffer\n    override val byteOffset: Int\n    override val
byteLength: Int\n    fun getInt8(byteOffset:
Int): Byte\n    fun getUInt8(byteOffset: Int): Byte\n    fun getInt16(byteOffset: Int, littleEndian: Boolean =
definedExternally): Short\n    fun getUInt16(byteOffset: Int, littleEndian: Boolean = definedExternally): Short\n
fun getInt32(byteOffset: Int, littleEndian: Boolean = definedExternally): Int\n    fun getUInt32(byteOffset: Int,
littleEndian: Boolean = definedExternally): Int\n    fun getFloat32(byteOffset: Int, littleEndian: Boolean =
definedExternally): Float\n    fun getFloat64(byteOffset: Int, littleEndian: Boolean = definedExternally): Double\n
fun setInt8(byteOffset: Int, value: Byte)\n    fun setUInt8(byteOffset: Int, value: Byte)\n    fun setInt16(byteOffset:
Int, value: Short, littleEndian: Boolean = definedExternally)\n    fun setUInt16(byteOffset: Int, value: Short,
littleEndian: Boolean = definedExternally)\n    fun setInt32(byteOffset: Int, value: Int, littleEndian: Boolean =
definedExternally)\n    fun setUInt32(byteOffset: Int, value: Int, littleEndian:
Boolean = definedExternally)\n    fun setFloat32(byteOffset: Int, value: Float, littleEndian: Boolean =
definedExternally)\n    fun setFloat64(byteOffset: Int, value: Double, littleEndian: Boolean =
definedExternally)\n}\n\npublic external interface BufferDataSource\n\npublic external interface
TexImageSource\", /*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n *
Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for
details\n\npackage org.w3c.dom.clipboard\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport
org.w3c.dom.*\nimport org.w3c.dom.events.*\n\npublic external interface ClipboardEventInit : EventInit {\n    var
clipboardData: DataTransfer? /* = null */\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic
inline fun ClipboardEventInit(clipboardData: DataTransfer? = null, bubbles: Boolean? = false, cancelable:
Boolean? = false, composed: Boolean? = false): ClipboardEventInit {\n    val o = js(\"({})\")\n    o[\"clipboardData\"] = clipboardData\n    o[\"bubbles\"] = bubbles\n    o[\"cancelable\"] = cancelable\n    o[\"composed\"] = composed\n    return o\n}\n\n/**\n * Exposes the JavaScript
[ClipboardEvent](https://developer.mozilla.org/en/docs/Web/API/ClipboardEvent) to Kotlin\n */\npublic external
open class ClipboardEvent(type: String, eventInitDict: ClipboardEventInit = definedExternally) : Event {\n    open
val clipboardData: DataTransfer?\n\n    companion object {\n        val NONE: Short\n        val
CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n        val BUBBLING_PHASE: Short\n    }\n}\n\n/**\n * Exposes the JavaScript [Clipboard](https://developer.mozilla.org/en/docs/Web/API/Clipboard) to
Kotlin\n */\npublic external
abstract class Clipboard : EventTarget {\n    fun read(): Promise<DataTransfer>\n    fun readText():
Promise<String>\n    fun write(data: DataTransfer): Promise<Unit>\n    fun writeText(data: String):
Promise<Unit>}\n\npublic external interface ClipboardPermissionDescriptor {\n    var allowWithoutGesture:
Boolean? /* = false */\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun
ClipboardPermissionDescriptor(allowWithoutGesture: Boolean? = false): ClipboardPermissionDescriptor {\n    val
o = js(\"({})\")\n    o[\"allowWithoutGesture\"] = allowWithoutGesture\n    return o\n}\", /*\n * Copyright 2010-
2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the

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Apache 2.0 license that can be found in the license/LICENSE.txt file.\n \*\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n\n// See github.com/kotlin/dukat

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for details\n\npackage org.w3c.dom.css\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\n\npublic external abstract class MediaList : ItemArrayLike<String> {\n    open var mediaText: String\n    fun appendMedium(medium: String)\n    fun deleteMedium(medium: String)\n    override fun item(index: Int): String?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun MediaList.get(index: Int): String? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [StyleSheet](https://developer.mozilla.org/en/docs/Web/API/StyleSheet) to Kotlin\n */\n\npublic external abstract class StyleSheet {\n    open val type: String\n    open val href: String?\n    open val ownerNode: UnionElementOrProcessingInstruction?\n    open val parentStyleSheet: StyleSheet?\n    open val title: String?\n    open val media: MediaList\n    open var disabled: Boolean\n}\n\n/**\n * Exposes the JavaScript [CSSStyleSheet](https://developer.mozilla.org/en/docs/Web/API/CSSStyleSheet) to Kotlin\n */\n\npublic external abstract class CSSStyleSheet : StyleSheet {\n    open val ownerRule: CSSRule?\n    open val cssRules: CSSRuleList\n    fun insertRule(rule: String, index: Int): Int\n    fun deleteRule(index: Int)\n}\n\n/**\n * Exposes the JavaScript [StyleSheetList](https://developer.mozilla.org/en/docs/Web/API/StyleSheetList) to Kotlin\n */\n\npublic external abstract class StyleSheetList : ItemArrayLike<StyleSheet> {\n    override fun item(index: Int): StyleSheet?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun StyleSheetList.get(index: Int): StyleSheet? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [LinkStyle](https://developer.mozilla.org/en/docs/Web/API/LinkStyle) to Kotlin\n */\n\npublic external interface LinkStyle {\n    val sheet: StyleSheet?\n    get() = definedExternally\n}\n\n/**\n * Exposes the JavaScript [CSSRuleList](https://developer.mozilla.org/en/docs/Web/API/CSSRuleList) to Kotlin\n */\n\npublic external abstract class CSSRuleList : ItemArrayLike<CSSRule> {\n    override fun item(index: Int): CSSRule?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun CSSRuleList.get(index: Int): CSSRule? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [CSSRule](https://developer.mozilla.org/en/docs/Web/API/CSSRule) to Kotlin\n */\n\npublic external abstract class CSSRule {\n    open val type: Short\n    open var cssText: String\n    open val parentRule: CSSRule?\n    open val parentStyleSheet: CSSStyleSheet?\n\n    companion object {\n        val STYLE_RULE: Short\n        val CHARSET_RULE: Short\n        val IMPORT_RULE: Short\n        val MEDIA_RULE: Short\n        val FONT_FACE_RULE: Short\n        val PAGE_RULE: Short\n        val MARGIN_RULE: Short\n        val NAMESPACE_RULE: Short\n    }\n}\n\n/**\n * Exposes the JavaScript [CSSStyleRule](https://developer.mozilla.org/en/docs/Web/API/CSSStyleRule) to Kotlin\n */\n\npublic external abstract class CSSStyleRule : CSSRule {\n    open var selectorText: String\n    open val style: CSSStyleDeclaration\n\n    companion object {\n        val STYLE_RULE: Short\n        val CHARSET_RULE: Short\n        val IMPORT_RULE: Short\n        val MEDIA_RULE: Short\n        val FONT_FACE_RULE: Short\n        val PAGE_RULE: Short\n        val MARGIN_RULE: Short\n        val NAMESPACE_RULE: Short\n    }\n}\n\npublic external abstract class CSSImportRule : CSSRule {\n    open val href: String\n    open val media: MediaList\n    open val styleSheet: CSSStyleSheet\n\n    companion object {\n        val STYLE_RULE: Short\n        val CHARSET_RULE: Short\n        val IMPORT_RULE: Short\n        val MEDIA_RULE: Short\n        val FONT_FACE_RULE: Short\n        val PAGE_RULE: Short\n        val MARGIN_RULE: Short\n        val NAMESPACE_RULE: Short\n    }\n}\n\n/**\n * Exposes the JavaScript [CSSGroupingRule](https://developer.mozilla.org/en/docs/Web/API/CSSGroupingRule) to Kotlin\n */\n\npublic external abstract class CSSGroupingRule : CSSRule {\n    open val cssRules: CSSRuleList\n    fun insertRule(rule: String, index: Int): Int\n    fun deleteRule(index: Int)\n\n    companion object {\n        val STYLE_RULE: Short\n        val CHARSET_RULE: Short\n        val IMPORT_RULE: Short\n        val

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MEDIA_RULE: Short\n    val FONT_FACE_RULE: Short\n    val PAGE_RULE: Short\n    val
MARGIN_RULE: Short\n    val NAMESPACE_RULE: Short\n } \n \n /** \n * Exposes the JavaScript
[CSSMediaRule](https://developer.mozilla.org/en/docs/Web/API/CSSMediaRule) to Kotlin \n * \n public external
abstract class CSSMediaRule : CSSGroupingRule { \n    open val media: MediaList \n \n    companion object { \n
val STYLE_RULE: Short\n    val CHARSET_RULE: Short\n    val IMPORT_RULE: Short\n    val
MEDIA_RULE: Short\n    val FONT_FACE_RULE: Short\n    val PAGE_RULE: Short\n
    val MARGIN_RULE: Short\n    val NAMESPACE_RULE: Short\n } \n \n \n /** \n * Exposes the JavaScript
[CSSPageRule](https://developer.mozilla.org/en/docs/Web/API/CSSPageRule) to Kotlin \n * \n public external
abstract class CSSPageRule : CSSGroupingRule { \n    open var selectorText: String \n    open val style:
CSSStyleDeclaration \n \n    companion object { \n    val STYLE_RULE: Short\n    val CHARSET_RULE:
Short\n    val IMPORT_RULE: Short\n    val MEDIA_RULE: Short\n    val FONT_FACE_RULE: Short\n
    val PAGE_RULE: Short\n    val MARGIN_RULE: Short\n    val NAMESPACE_RULE: Short\n
} \n \n \n public external abstract class CSSMarginRule : CSSRule { \n    open val name: String \n    open val style:
CSSStyleDeclaration \n \n    companion object { \n    val STYLE_RULE: Short\n    val CHARSET_RULE:
Short\n    val IMPORT_RULE: Short\n    val MEDIA_RULE: Short\n    val FONT_FACE_RULE: Short\n
    val PAGE_RULE: Short\n    val MARGIN_RULE:
Short\n    val NAMESPACE_RULE: Short\n } \n \n \n /** \n * Exposes the JavaScript
[CSSNamespaceRule](https://developer.mozilla.org/en/docs/Web/API/CSSNamespaceRule) to Kotlin \n * \n public
external abstract class CSSNamespaceRule : CSSRule { \n    open val namespaceURI: String \n    open val prefix:
String \n \n    companion object { \n    val STYLE_RULE: Short\n    val CHARSET_RULE: Short\n    val
IMPORT_RULE: Short\n    val MEDIA_RULE: Short\n    val FONT_FACE_RULE: Short\n    val
PAGE_RULE: Short\n    val MARGIN_RULE: Short\n    val NAMESPACE_RULE: Short\n } \n \n \n /** \n *
Exposes the JavaScript
[CSSStyleDeclaration](https://developer.mozilla.org/en/docs/Web/API/CSSStyleDeclaration) to Kotlin \n * \n public
external abstract class CSSStyleDeclaration : ItemArrayLike<String> { \n    open var cssText: String \n    open val
parentRule: CSSRule? \n    open var cssFloat: String \n    open var alignContent: String \n    open var alignItems:
String \n    open
var alignSelf: String \n    open var animation: String \n    open var animationDelay: String \n    open var
animationDirection: String \n    open var animationDuration: String \n    open var animationFillMode: String \n    open
var animationIterationCount: String \n    open var animationName: String \n    open var animationPlayState: String \n
open var animationTimingFunction: String \n    open var backfaceVisibility: String \n    open var background:
String \n    open var backgroundAttachment: String \n    open var backgroundClip: String \n    open var
backgroundColor: String \n    open var backgroundImage: String \n    open var backgroundOrigin: String \n    open var
backgroundPosition: String \n    open var backgroundRepeat: String \n    open var backgroundSize: String \n    open
var border: String \n    open var borderBottom: String \n    open var borderBottomColor: String \n    open var
borderBottomLeftRadius: String \n    open var borderBottomRightRadius: String \n    open var borderBottomStyle:
String \n
    open var borderBottomWidth: String \n    open var borderCollapse: String \n    open var borderColor: String \n
open var borderImage: String \n    open var borderImageOutset: String \n    open var borderImageRepeat: String \n
open var borderImageSlice: String \n    open var borderImageSource: String \n    open var borderImageWidth:
String \n    open var borderLeft: String \n    open var borderLeftColor: String \n    open var borderLeftStyle: String \n
open var borderLeftWidth: String \n    open var borderRadius: String \n    open var borderRight: String \n    open var
borderRightColor: String \n    open var borderRightStyle: String \n    open var borderRightWidth: String \n    open var
borderSpacing: String \n    open var borderStyle: String \n    open var borderTop: String \n    open var
borderTopColor: String \n    open var borderTopLeftRadius: String \n    open var borderTopRightRadius: String \n
open var borderTopStyle: String \n    open var borderTopWidth: String \n    open var borderWidth:
String \n    open var bottom: String \n    open var boxDecorationBreak: String \n    open var boxShadow: String \n
open var boxSizing: String \n    open var breakAfter: String \n    open var breakBefore: String \n    open var

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breakInside: String\n open var captionSide: String\n open var clear: String\n open var clip: String\n open var color: String\n open var columnCount: String\n open var columnFill: String\n open var columnGap: String\n open var columnRule: String\n open var columnRuleColor: String\n open var columnRuleStyle: String\n open var columnRuleWidth: String\n open var columnSpan: String\n open var columnWidth: String\n open var columns: String\n open var content: String\n open var counterIncrement: String\n open var counterReset: String\n open var cursor: String\n open var direction: String\n open var display: String\n open var emptyCells: String\n open var filter: String\n open var flex: String\n open var flexBasis: String\n open var flexDirection: String\n open var flexFlow: String\n open var flexGrow: String\n open var flexShrink: String\n open var flexWrap: String\n open var font: String\n open var fontFamily: String\n open var fontFeatureSettings: String\n open var fontKerning: String\n open var fontLanguageOverride: String\n open var fontSize: String\n open var fontSizeAdjust: String\n open var fontStretch: String\n open var fontStyle: String\n open var fontSynthesis: String\n open var fontVariant: String\n open var fontVariantAlternates: String\n open var fontVariantCaps: String\n open var fontVariantEastAsian: String\n open var fontVariantLigatures: String\n open var fontVariantNumeric: String\n open var fontVariantPosition: String\n open var fontWeight: String\n open var hangingPunctuation: String\n open var height: String\n open var hyphens: String\n open var imageOrientation: String\n open var imageRendering: String\n open var imageResolution: String\n open var imeMode: String\n open var justifyContent: String\n open var left: String\n open var letterSpacing: String\n open var lineBreak: String\n open var lineHeight: String\n open var listStyle: String\n open var listStyleImage: String\n open var listStylePosition: String\n open var listStyleType: String\n open var margin: String\n open var marginBottom: String\n open var marginLeft: String\n open var marginRight: String\n open var marginTop: String\n open var mark: String\n open var markAfter: String\n open var markBefore: String\n open var marks: String\n open var marqueeDirection: String\n open var marqueePlayCount: String\n open var marqueeSpeed: String\n open var marqueeStyle: String\n open var mask: String\n open var maskType: String\n open var maxHeight: String\n open var maxWidth: String\n open var minHeight: String\n open var minWidth: String\n open var navDown: String\n open var navIndex: String\n open var navLeft: String\n open var navRight: String\n open var navUp: String\n open var objectFit: String\n open var objectPosition: String\n open var opacity: String\n open var order: String\n open var orphans: String\n open var outline: String\n open var outlineColor: String\n open var outlineOffset: String\n open var outlineStyle: String\n open var outlineWidth: String\n open var overflowWrap: String\n open var overflowX: String\n open var overflowY: String\n open var padding: String\n open var paddingBottom: String\n open var paddingLeft: String\n open var paddingRight: String\n open var paddingTop: String\n open var pageBreakAfter: String\n open var pageBreakBefore: String\n open var pageBreakInside: String\n open var perspective: String\n open var perspectiveOrigin: String\n open var phonemes: String\n open var position: String\n open var quotes: String\n open var resize: String\n open var rest: String\n open var restAfter: String\n open var restBefore: String\n open var right: String\n open var tabSize: String\n open var tableLayout: String\n open var textAlign: String\n open var textAlignLast: String\n open var textCombineUpright: String\n open var textDecoration: String\n open var textDecorationColor: String\n open var textDecorationLine: String\n open var textDecorationStyle: String\n open var textIndent: String\n open var textJustify: String\n open var textOrientation: String\n open var textOverflow: String\n open var textShadow: String\n open var textTransform: String\n open var textUnderlinePosition: String\n open var top: String\n open var transform: String\n open var transformOrigin: String\n open var transformStyle: String\n open var transition: String\n open var transitionDelay: String\n open var transitionDuration: String\n open var transitionProperty: String\n open var transitionTimingFunction: String\n open var unicodeBidi: String\n open var verticalAlign: String\n open var visibility: String\n open var voiceBalance: String\n open var voiceDuration: String\n open var voicePitch: String\n open var voicePitchRange: String\n open var voiceRate: String\n open var voiceStress: String\n open var voiceVolume: String\n open var whiteSpace: String\n open var widows: String\n open var width: String\n open var

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wordBreak: String\n  open var wordSpacing: String\n  open var wordWrap: String\n  open var writingMode:
String\n  open var zIndex: String\n  open var _dashed_attribute: String\n  open var _camel_cased_attribute:
String\n  open var _webkit_cased_attribute: String\n  fun getPropertyValue(property: String): String\n  fun
getPropertyPriority(property: String): String\n  fun setProperty(property: String, value: String,
priority: String = definedExternally)\n  fun setPropertyValue(property: String, value: String)\n  fun
setPropertyPriority(property: String, priority: String)\n  fun removeProperty(property: String): String\n  override
fun item(index: Int): String\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun
CSSStyleDeclaration.get(index: Int): String? = asDynamic()[index]\n\npublic external interface
ElementCSSInlineStyle {\n  val style: CSSStyleDeclaration\n}\n\n/**\n * Exposes the JavaScript
[CSS](https://developer.mozilla.org/en/docs/Web/API/CSS) to Kotlin\n */\npublic external abstract class CSS {\n
companion object {\n  fun escape(ident: String): String\n  }\n}\n\npublic external interface
UnionElementOrProcessingInstruction, \"/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in
the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n\n// See
github.com/kotlin/dukat for details\n\npackage org.w3c.dom.encryptedmedia\n\nimport kotlin.js.*\nimport
org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\n\n/**\n * Exposes the JavaScript
[MediaKeySystemConfiguration](https://developer.mozilla.org/en/docs/Web/API/MediaKeySystemConfiguration)
to Kotlin\n */\npublic external interface MediaKeySystemConfiguration {\n  var label: String? /* = \"\" */\n
get() = definedExternally\n  set(value) = definedExternally\n  var initDataTypes: Array<String>? /* = arrayOf()
*/\n  get() = definedExternally\n  set(value) = definedExternally\n  var audioCapabilities:
Array<MediaKeySystemMediaCapability>? /* = arrayOf() */\n  get() = definedExternally\n  set(value) =
definedExternally\n  var videoCapabilities: Array<MediaKeySystemMediaCapability>? /* = arrayOf() */\n
get() = definedExternally\n
set(value) = definedExternally\n  var distinctiveIdentifier: MediaKeysRequirement? /* =
MediaKeysRequirement.OPTIONAL */\n  get() = definedExternally\n  set(value) = definedExternally\n
var persistentState: MediaKeysRequirement? /* = MediaKeysRequirement.OPTIONAL */\n  get() =
definedExternally\n  set(value) = definedExternally\n  var sessionTypes: Array<String>?\n  get() =
definedExternally\n  set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaKeySystemConfiguration(label:
String? = \"\", initDataTypes: Array<String>? = arrayOf(), audioCapabilities:
Array<MediaKeySystemMediaCapability>? = arrayOf(), videoCapabilities:
Array<MediaKeySystemMediaCapability>? = arrayOf(), distinctiveIdentifier: MediaKeysRequirement? =
MediaKeysRequirement.OPTIONAL, persistentState: MediaKeysRequirement? =
MediaKeysRequirement.OPTIONAL, sessionTypes: Array<String>?
= undefined): MediaKeySystemConfiguration {\n  val o = js(\"({})\")\n  o[\"label\"] = label\n
o[\"initDataTypes\"] = initDataTypes\n  o[\"audioCapabilities\"] = audioCapabilities\n  o[\"videoCapabilities\"] =
videoCapabilities\n  o[\"distinctiveIdentifier\"] = distinctiveIdentifier\n  o[\"persistentState\"] = persistentState\n
o[\"sessionTypes\"] = sessionTypes\n  return o\n}\n\npublic external interface MediaKeySystemMediaCapability
{\n  var contentType: String? /* = \"\" */\n  get() = definedExternally\n  set(value) = definedExternally\n
var robustness: String? /* = \"\" */\n  get() = definedExternally\n  set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun
MediaKeySystemMediaCapability(contentType: String? = \"\", robustness: String? = \"\"):
MediaKeySystemMediaCapability {\n  val o = js(\"({})\")\n  o[\"contentType\"] = contentType\n
o[\"robustness\"] = robustness\n  return o\n}\n\n/**\n * Exposes the JavaScript
[MediaKeySystemAccess](https://developer.mozilla.org/en/docs/Web/API/MediaKeySystemAccess) to Kotlin\n
*/\npublic external abstract class MediaKeySystemAccess {\n  open val keySystem: String\n  fun

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getConfiguration(): MediaKeySystemConfiguration\n fun createMediaKeys(): Promise<MediaKeys>\n}\n\n/**\n
* Exposes the JavaScript [MediaKeys](https://developer.mozilla.org/en/docs/Web/API/MediaKeys) to Kotlin\n
*\n\npublic external abstract class MediaKeys {\n fun createSession(sessionType: MediaKeySessionType =
definedExternally): MediaKeySession\n fun setServerCertificate(serverCertificate: dynamic):
Promise<Boolean>\n}\n\n/**\n
* Exposes the JavaScript
[MediaKeySession](https://developer.mozilla.org/en/docs/Web/API/MediaKeySession) to Kotlin\n *\n\npublic
external abstract class MediaKeySession : EventTarget {\n open val sessionId: String\n open val expiration:
Double\n open val closed:
Promise<Unit>\n open val keyStatuses: MediaKeyStatusMap\n open var onkeystatuseschange: ((Event) ->
dynamic)?\n open var onmessage: ((MessageEvent) -> dynamic)?\n fun generateRequest(initDataType: String,
initData: dynamic): Promise<Unit>\n fun load(sessionId: String): Promise<Boolean>\n fun update(response:
dynamic): Promise<Unit>\n fun close(): Promise<Unit>\n fun remove(): Promise<Unit>\n}\n\n/**\n
* Exposes the JavaScript
the JavaScript [MediaKeyStatusMap](https://developer.mozilla.org/en/docs/Web/API/MediaKeyStatusMap) to
Kotlin\n *\n\npublic external abstract class MediaKeyStatusMap {\n open val size: Int\n fun has(keyId: dynamic):
Boolean\n fun get(keyId: dynamic): Any?\n}\n\n/**\n
* Exposes the JavaScript
[MediaKeyMessageEvent](https://developer.mozilla.org/en/docs/Web/API/MediaKeyMessageEvent) to Kotlin\n
*\n\npublic external open class MediaKeyMessageEvent(type: String, eventInitDict: MediaKeyMessageEventInit) :
Event {\n open val messageType: MediaKeyMessageType\n
open val message: ArrayBuffer\n\n companion object {\n val NONE: Short\n val
CAPTURING_PHASE: Short\n val AT_TARGET: Short\n val BUBBLING_PHASE: Short\n
}\n}\n\npublic external interface MediaKeyMessageEventInit : EventInit {\n var messageType:
MediaKeyMessageType?\n var message: ArrayBuffer?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun
MediaKeyMessageEventInit(messageType: MediaKeyMessageType?, message: ArrayBuffer?, bubbles: Boolean? =
false, cancelable: Boolean? = false, composed: Boolean? = false): MediaKeyMessageEventInit {\n val o =
js(\"({})\")\n o[\"messageType\"] = messageType\n o[\"message\"] = message\n o[\"bubbles\"] = bubbles\n
o[\"cancelable\"] = cancelable\n o[\"composed\"] = composed\n return o\n}\n\n\npublic external open class
MediaEncryptedEvent(type: String, eventInitDict: MediaEncryptedEventInit = definedExternally) : Event {\n
open val initDataType: String\n open val initData: ArrayBuffer?\n\n companion object {\n val NONE:
Short\n val CAPTURING_PHASE: Short\n val AT_TARGET: Short\n val BUBBLING_PHASE:
Short\n }\n}\n\npublic external interface MediaEncryptedEventInit : EventInit {\n var initDataType: String? /* =
\"\" */\n get() = definedExternally\n set(value) = definedExternally\n var initData: ArrayBuffer? /* = null
*/\n get() = definedExternally\n set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun
MediaEncryptedEventInit(initDataType: String? = \"\", initData: ArrayBuffer? = null, bubbles: Boolean? = false,
cancelable: Boolean? = false, composed: Boolean? = false): MediaEncryptedEventInit {\n val o = js(\"({})\")\n
o[\"initDataType\"] = initDataType\n o[\"initData\"] = initData\n o[\"bubbles\"] = bubbles\n o[\"cancelable\"] =
cancelable\n o[\"composed\"] = composed\n return o\n}\n\n/* please, don't implement this interface!
*\n\n@JsName(\"null\")\n\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic external
interface MediaKeysRequirement {\n companion object\n}\n\n\npublic inline val
MediaKeysRequirement.Companion.REQUIRED: MediaKeysRequirement get() =
\"required\".asDynamic().unsafeCast<MediaKeysRequirement>()\n\n\npublic inline val
MediaKeysRequirement.Companion.OPTIONAL: MediaKeysRequirement get() =
\"optional\".asDynamic().unsafeCast<MediaKeysRequirement>()\n\n\npublic inline val
MediaKeysRequirement.Companion.NOT_ALLOWED: MediaKeysRequirement get() = \"not-
allowed\".asDynamic().unsafeCast<MediaKeysRequirement>()\n\n/* please, don't implement this interface!

```

```

*\n@JsName("null")\n@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")\npublic external
interface MediaKeySessionType {\n  companion object\n}\n\npublic inline val
MediaKeySessionType.Companion.TEMPORARY: MediaKeySessionType get() =
"temporary".asDynamic().unsafeCast<MediaKeySessionType>()\n\npublic
inline val MediaKeySessionType.Companion.PERSISTENT_LICENSE: MediaKeySessionType get() =
"persistent-license".asDynamic().unsafeCast<MediaKeySessionType>()\n\n/* please, don't implement this
interface! */\n*\n@JsName("null")\n@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")\npublic
external interface MediaKeyStatus {\n  companion object\n}\n\npublic inline val
MediaKeyStatus.Companion.USABLE: MediaKeyStatus get() =
"usable".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val
MediaKeyStatus.Companion.EXPIRED: MediaKeyStatus get() =
"expired".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val
MediaKeyStatus.Companion.RELEASED: MediaKeyStatus get() =
"released".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val
MediaKeyStatus.Companion.OUTPUT_RESTRICTED: MediaKeyStatus get() = "output-
restricted".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val
MediaKeyStatus.Companion.OUTPUT_DOWNSCALED:
MediaKeyStatus get() = "output-downscaled".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val
MediaKeyStatus.Companion.STATUS_PENDING: MediaKeyStatus get() = "status-
pending".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val
MediaKeyStatus.Companion.INTERNAL_ERROR: MediaKeyStatus get() = "internal-
error".asDynamic().unsafeCast<MediaKeyStatus>()\n\n/* please, don't implement this interface!
*/\n*\n@JsName("null")\n@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")\npublic external
interface MediaKeyMessageType {\n  companion object\n}\n\npublic inline val
MediaKeyMessageType.Companion.LICENSE_REQUEST: MediaKeyMessageType get() = "license-
request".asDynamic().unsafeCast<MediaKeyMessageType>()\n\npublic inline val
MediaKeyMessageType.Companion.LICENSE_RENEWAL: MediaKeyMessageType get() = "license-
renewal".asDynamic().unsafeCast<MediaKeyMessageType>()\n\npublic inline val
MediaKeyMessageType.Companion.LICENSE_RELEASE: MediaKeyMessageType
get() = "license-release".asDynamic().unsafeCast<MediaKeyMessageType>()\n\npublic inline val
MediaKeyMessageType.Companion.INDIVIDUALIZATION_REQUEST: MediaKeyMessageType get() =
"individualization-request".asDynamic().unsafeCast<MediaKeyMessageType>()\n\n/*\n * Copyright 2010-2021
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n *\n\n// NOTE: THIS FILE IS AUTO-
GENERATED, DO NOT EDIT!\n\n// See github.com/kotlin/dukat for details\n\npackage
org.w3c.dom.events\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\n\n/**\n * Exposes
the JavaScript [UIEvent](https://developer.mozilla.org/en/docs/Web/API/UIEvent) to Kotlin\n *\n\npublic external
open class UIEvent(type: String, eventInitDict: UIEventInit = definedExternally) : Event {\n  open val view:
Window?\n  open val detail: Int\n\n  companion object {\n    val NONE: Short\n
val CAPTURING_PHASE: Short\n    val AT_TARGET: Short\n    val BUBBLING_PHASE: Short\n
}\n}\n\npublic external interface UIEventInit : EventInit {\n  var view: Window? /* = null */\n  get() =
definedExternally\n  set(value) = definedExternally\n  var detail: Int? /* = 0 */\n  get() =
definedExternally\n  set(value) = definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun UIEventInit(view: Window? = null,
detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): UIEventInit
{\n  val o = js("{}")\n  o["view"] = view\n  o["detail"] = detail\n  o["bubbles"] = bubbles\n
o["cancelable"] = cancelable\n  o["composed"] = composed\n  return o\n}\n\n/*\n *\n * Exposes the JavaScript
[FocusEvent](https://developer.mozilla.org/en/docs/Web/API/FocusEvent) to Kotlin\n *\n\npublic external open class

```



```

FocusEvent(type:
String, eventInitDict: FocusEventInit = definedExternally) : UIEvent {\n  open val relatedTarget:
EventTarget?\n\n  companion object {\n    val NONE: Short\n    val CAPTURING_PHASE: Short\n    val
AT_TARGET: Short\n    val BUBBLING_PHASE: Short\n  }\n\n\npublic external interface FocusEventInit :
UIEventInit {\n  var relatedTarget: EventTarget? /* = null */\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress(\\"INVISIBLE_REFERENCE\\",
\\"INVISIBLE_MEMBER\\")\n@kotlin.internal.InlineOnly\npublic inline fun FocusEventInit(relatedTarget:
EventTarget? = null, view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? =
false, composed: Boolean? = false): FocusEventInit {\n  val o = js(\\"({})\\")\n  o[\\"relatedTarget\"] =
relatedTarget\n  o[\\"view\"] = view\n  o[\\"detail\"] = detail\n  o[\\"bubbles\"] = bubbles\n  o[\\"cancelable\"] =
cancelable\n  o[\\"composed\"] = composed\n  return o\n}\n\n/**\n * Exposes the JavaScript [MouseEvent](https://developer.mozilla.org/en/docs/Web/API/MouseEvent) to Kotlin\n */\n\npublic external open class MouseEvent(type: String, eventInitDict: MouseEventInit = definedExternally) :
UIEvent, UnionElementOrMouseEvent {\n  open val screenX: Int\n  open val screenY: Int\n  open val clientX:
Int\n  open val clientY: Int\n  open val ctrlKey: Boolean\n  open val shiftKey: Boolean\n  open val altKey:
Boolean\n  open val metaKey: Boolean\n  open val button: Short\n  open val buttons: Short\n  open val
relatedTarget: EventTarget?\n  open val region: String?\n  open val pageX: Double\n  open val pageY: Double\n
open val x: Double\n  open val y: Double\n  open val offsetX: Double\n  open val offsetY: Double\n  fun
getModifierState(keyArg: String): Boolean\n\n  companion object {\n    val NONE: Short\n    val
CAPTURING_PHASE: Short\n    val AT_TARGET: Short\n    val BUBBLING_PHASE: Short\n  }\n\n\npublic
external interface MouseEventInit : EventModifierInit {\n  var screenX: Int? /* = 0 */\n    get() =
definedExternally\n    set(value) = definedExternally\n  var screenY: Int? /* = 0 */\n    get() =
definedExternally\n    set(value) = definedExternally\n  var clientX: Int? /* = 0 */\n    get() =
definedExternally\n    set(value) = definedExternally\n  var clientY: Int? /* = 0 */\n    get() =
definedExternally\n    set(value) = definedExternally\n  var button: Short? /* = 0 */\n    get() =
definedExternally\n    set(value) = definedExternally\n  var buttons: Short? /* = 0 */\n    get() =
definedExternally\n    set(value) = definedExternally\n  var relatedTarget: EventTarget? /* = null */\n    get()
= definedExternally\n    set(value) = definedExternally\n  var region: String? /* = null */\n    get() =
definedExternally\n    set(value) = definedExternally\n}\n\n@Suppress(\\"INVISIBLE_REFERENCE\\",
\\"INVISIBLE_MEMBER\\")\n@kotlin.internal.InlineOnly\npublic inline fun MouseEventInit(screenX: Int? = 0,
screenY: Int? = 0, clientX: Int? = 0, clientY: Int? = 0, button: Short? = 0, buttons: Short? = 0, relatedTarget:
EventTarget? = null, region: String? = null, ctrlKey: Boolean? = false, shiftKey: Boolean? = false, altKey: Boolean?
= false, metaKey: Boolean? = false, modifierAltGraph: Boolean? = false, modifierCapsLock: Boolean? = false,
modifierFn: Boolean? = false, modifierFnLock: Boolean? = false, modifierHyper: Boolean? = false,
modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? = false, modifierSuper: Boolean? = false,
modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false, view: Window? = null, detail: Int? = 0,
bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): MouseEventInit {\n  val o =
js(\\"({})\\")\n  o[\\"screenX\"] = screenX\n  o[\\"screenY\"] = screenY\n  o[\\"clientX\"] = clientX\n  o[\\"clientY\"]
= clientY\n  o[\\"button\"] = button\n  o[\\"buttons\"] = buttons\n  o[\\"relatedTarget\"] = relatedTarget\n  o[\\"region\"] =
region\n  o[\\"ctrlKey\"] = ctrlKey\n  o[\\"shiftKey\"] = shiftKey\n  o[\\"altKey\"] = altKey\n  o[\\"metaKey\"] =
metaKey\n  o[\\"modifierAltGraph\"] = modifierAltGraph\n  o[\\"modifierCapsLock\"] = modifierCapsLock\n
o[\\"modifierFn\"] = modifierFn\n  o[\\"modifierFnLock\"] = modifierFnLock\n  o[\\"modifierHyper\"] =
modifierHyper\n  o[\\"modifierNumLock\"] = modifierNumLock\n  o[\\"modifierScrollLock\"] =
modifierScrollLock\n  o[\\"modifierSuper\"] = modifierSuper\n  o[\\"modifierSymbol\"] = modifierSymbol\n
o[\\"modifierSymbolLock\"] = modifierSymbolLock\n  o[\\"view\"] = view\n  o[\\"detail\"] = detail\n
o[\\"bubbles\"] = bubbles\n  o[\\"cancelable\"] = cancelable\n  o[\\"composed\"] = composed\n  return

```

```

o\n}\n\npublic external interface EventModifierInit : UIEventInit {\n  var ctrlKey: Boolean? /* = false */\n  get() = definedExternally\n  set(value) = definedExternally\n  var shiftKey: Boolean? /* = false */\n  get() = definedExternally\n  set(value) = definedExternally\n  var altKey: Boolean? /* = false */\n  get() = definedExternally\n  set(value) = definedExternally\n  var metaKey: Boolean? /* = false */\n  get() = definedExternally\n  set(value) = definedExternally\n  var modifierAltGraph: Boolean? /* = false */\n  get() = definedExternally\n  set(value) = definedExternally\n  var modifierCapsLock: Boolean? /* = false */\n  get() = definedExternally\n  set(value) = definedExternally\n  var modifierFn: Boolean? /* = false */\n  get() = definedExternally\n  set(value) = definedExternally\n  var modifierFnLock: Boolean? /* = false */\n  get() = definedExternally\n  set(value) = definedExternally\n  var modifierHyper: Boolean? /* = false */\n  get() = definedExternally\n  set(value) = definedExternally\n  var modifierNumLock: Boolean? /* = false */\n  get() = definedExternally\n  set(value) = definedExternally\n  var modifierScrollLock: Boolean? /* = false */\n  get() = definedExternally\n  set(value) = definedExternally\n  var modifierSuper: Boolean? /* = false */\n  get() = definedExternally\n  set(value) = definedExternally\n  var modifierSymbol: Boolean? /* = false */\n  get() = definedExternally\n  set(value) = definedExternally\n  var modifierSymbolLock: Boolean? /* = false */\n  get() = definedExternally\n  set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun EventModifierInit(ctrlKey: Boolean? = false, shiftKey: Boolean? = false, altKey: Boolean? = false, metaKey: Boolean? = false, modifierAltGraph: Boolean? = false, modifierCapsLock: Boolean? = false, modifierFn: Boolean? = false, modifierFnLock: Boolean? = false, modifierHyper: Boolean? = false, modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? = false, modifierSuper: Boolean? = false, modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false, view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): EventModifierInit {\n  val o = js(\"({})\")\n  o[\"ctrlKey\"] = ctrlKey\n  o[\"shiftKey\"] = shiftKey\n  o[\"altKey\"] = altKey\n  o[\"metaKey\"] = metaKey\n  o[\"modifierAltGraph\"] = modifierAltGraph\n  o[\"modifierCapsLock\"] = modifierCapsLock\n  o[\"modifierFn\"] = modifierFn\n  o[\"modifierFnLock\"] = modifierFnLock\n  o[\"modifierHyper\"] = modifierHyper\n  o[\"modifierNumLock\"] = modifierNumLock\n  o[\"modifierScrollLock\"] = modifierScrollLock\n  o[\"modifierSuper\"] = modifierSuper\n  o[\"modifierSymbol\"] = modifierSymbol\n  o[\"modifierSymbolLock\"] = modifierSymbolLock\n  o[\"view\"] = view\n  o[\"detail\"] = detail\n  o[\"bubbles\"] = bubbles\n  o[\"cancelable\"] = cancelable\n  o[\"composed\"] = composed\n  return o\n}\n\n/**\n * Exposes the JavaScript [WheelEvent](https://developer.mozilla.org/en/docs/Web/API/WheelEvent) to Kotlin\n */\npublic external open class WheelEvent(type: String, eventInitDict: WheelEventInit = definedExternally) : MouseEvent {\n  open val deltaX: Double\n  open val deltaY: Double\n  open val deltaZ: Double\n  open val deltaMode: Int\n\n  companion object {\n    val DOM_DELTA_PIXEL: Int\n    val DOM_DELTA_LINE: Int\n    val DOM_DELTA_PAGE: Int\n    val NONE: Short\n    val CAPTURING_PHASE: Short\n    val AT_TARGET: Short\n    val BUBBLING_PHASE: Short\n  }\n}\n\npublic external interface WheelEventInit : MouseEventInit {\n  var deltaX: Double? /* = 0.0 */\n  get() = definedExternally\n  set(value) = definedExternally\n  var deltaY: Double? /* = 0.0 */\n  get() = definedExternally\n  set(value) = definedExternally\n  var deltaZ: Double? /* = 0.0 */\n  get() = definedExternally\n  set(value) = definedExternally\n  var deltaMode: Int? /* = 0 */\n  get() = definedExternally\n  set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun WheelEventInit(deltaX: Double? = 0.0, deltaY: Double? = 0.0, deltaZ: Double? = 0.0, deltaMode: Int? = 0, screenX: Int? = 0, screenY: Int? = 0, clientX: Int? = 0, clientY: Int? = 0, button: Short? = 0, buttons: Short? = 0, relatedTarget: EventTarget? = null, region: String? = null, ctrlKey: Boolean? = false, shiftKey: Boolean? = false, altKey: Boolean? = false, metaKey: Boolean? = false, modifierAltGraph: Boolean? = false, modifierCapsLock: Boolean? = false, modifierFn: Boolean? = false,

```

```

modifierFnLock: Boolean? = false, modifierHyper: Boolean? = false, modifierNumLock: Boolean? = false,
modifierScrollLock: Boolean? = false,
modifierSuper: Boolean? = false, modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false, view:
Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? =
false): WheelEventInit {\n  val o = js("{}")\n  o["deltaX"] = deltaX\n  o["deltaY"] = deltaY\n
o["deltaZ"] = deltaZ\n  o["deltaMode"] = deltaMode\n  o["screenX"] = screenX\n  o["screenY"] =
screenY\n  o["clientX"] = clientX\n  o["clientY"] = clientY\n  o["button"] = button\n  o["buttons"] =
buttons\n  o["relatedTarget"] = relatedTarget\n  o["region"] = region\n  o["ctrlKey"] = ctrlKey\n
o["shiftKey"] = shiftKey\n  o["altKey"] = altKey\n  o["metaKey"] = metaKey\n  o["modifierAltGraph"] =
modifierAltGraph\n  o["modifierCapsLock"] = modifierCapsLock\n  o["modifierFn"] = modifierFn\n
o["modifierFnLock"] = modifierFnLock\n  o["modifierHyper"] = modifierHyper\n  o["modifierNumLock"]
= modifierNumLock\n  o["modifierScrollLock"] = modifierScrollLock\n  o["modifierSuper"] =
modifierSuper\n  o["modifierSymbol"] = modifierSymbol\n  o["modifierSymbolLock"] =
modifierSymbolLock\n  o["view"] = view\n  o["detail"] = detail\n  o["bubbles"] = bubbles\n
o["cancelable"] = cancelable\n  o["composed"] = composed\n  return o\n}\n\n/**\n * Exposes the JavaScript
[InputEvent](https://developer.mozilla.org/en/docs/Web/API/InputEvent) to Kotlin\n */\npublic external open class
InputEvent(type: String, eventInitDict: InputEventInit = definedExternally) : UIEvent {\n  open val data: String\n
open val isComposing: Boolean\n\n  companion object {\n    val NONE: Short\n    val
CAPTURING_PHASE: Short\n    val AT_TARGET: Short\n    val BUBBLING_PHASE: Short\n
}\n}\n\npublic external interface InputEventInit : UIEventInit {\n  var data: String? /* = "" */\n  get() =
definedExternally\n  set(value) = definedExternally\n
var isComposing: Boolean? /* = false */\n  get() = definedExternally\n  set(value) =
definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun InputEventInit(data: String? = "",
isComposing: Boolean? = false, view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable:
Boolean? = false, composed: Boolean? = false): InputEventInit {\n  val o = js("{}")\n  o["data"] = data\n
o["isComposing"] = isComposing\n  o["view"] = view\n  o["detail"] = detail\n  o["bubbles"] = bubbles\n
o["cancelable"] = cancelable\n  o["composed"] = composed\n  return o\n}\n\n/**\n * Exposes the JavaScript
[KeyboardEvent](https://developer.mozilla.org/en/docs/Web/API/KeyboardEvent) to Kotlin\n */\npublic external
open class KeyboardEvent(type: String, eventInitDict: KeyboardEventInit = definedExternally) : UIEvent {\n
open val key: String\n  open val
code: String\n  open val location: Int\n  open val ctrlKey: Boolean\n  open val shiftKey: Boolean\n  open val
altKey: Boolean\n  open val metaKey: Boolean\n  open val repeat: Boolean\n  open val isComposing: Boolean\n
open val charCode: Int\n  open val keyCode: Int\n  open val which: Int\n  fun getModifierState(keyArg:
String): Boolean\n\n  companion object {\n    val DOM_KEY_LOCATION_STANDARD: Int\n    val
DOM_KEY_LOCATION_LEFT: Int\n    val DOM_KEY_LOCATION_RIGHT: Int\n    val
DOM_KEY_LOCATION_NUMPAD: Int\n    val NONE: Short\n    val CAPTURING_PHASE: Short\n
val AT_TARGET: Short\n    val BUBBLING_PHASE: Short\n  }\n}\n\npublic external interface
KeyboardEventInit : EventModifierInit {\n  var key: String? /* = "" */\n  get() = definedExternally\n
set(value) = definedExternally\n  var code: String? /* = "" */\n  get() = definedExternally\n  set(value) =
definedExternally\n  var location:
Int? /* = 0 */\n  get() = definedExternally\n  set(value) = definedExternally\n  var repeat: Boolean? /* =
false */\n  get() = definedExternally\n  set(value) = definedExternally\n  var isComposing: Boolean? /* =
false */\n  get() = definedExternally\n  set(value) =
definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun KeyboardEventInit(key: String? = "",
code: String? = "", location: Int? = 0, repeat: Boolean? = false, isComposing: Boolean? = false, ctrlKey: Boolean?
= false, shiftKey: Boolean? = false, altKey: Boolean? = false, metaKey: Boolean? = false, modifierAltGraph:

```

```

Boolean? = false, modifierCapsLock: Boolean? = false, modifierFn: Boolean? = false, modifierFnLock: Boolean? =
false, modifierHyper: Boolean? = false, modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? = false,
modifierSuper: Boolean? = false, modifierSymbol: Boolean? = false, modifierSymbolLock:
Boolean? = false, view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false,
composed: Boolean? = false): KeyboardEventInit {
    val o = js("{}")
    o["key"] = key
    o["code"] = code
    o["location"] = location
    o["repeat"] = repeat
    o["isComposing"] = isComposing
    o["ctrlKey"] = ctrlKey
    o["shiftKey"] = shiftKey
    o["altKey"] = altKey
    o["metaKey"] = metaKey
    o["modifierAltGraph"] = modifierAltGraph
    o["modifierCapsLock"] = modifierCapsLock
    o["modifierFn"] = modifierFn
    o["modifierFnLock"] = modifierFnLock
    o["modifierHyper"] = modifierHyper
    o["modifierNumLock"] = modifierNumLock
    o["modifierScrollLock"] = modifierScrollLock
    o["modifierSuper"] = modifierSuper
    o["modifierSymbol"] = modifierSymbol
    o["modifierSymbolLock"] = modifierSymbolLock
    o["view"] = view
    o["detail"] = detail
    o["bubbles"] = bubbles
    o["cancelable"] = cancelable
    o["composed"] = composed
    return o
}

/** Exposes the JavaScript [CompositionEvent](https://developer.mozilla.org/en/docs/Web/API/CompositionEvent) to Kotlin */
@public external open class CompositionEvent(type: String, eventInitDict: CompositionEventInit = definedExternally) :
    UIEvent {
    open val data: String
    companion object {
        val NONE: Short
        val CAPTURING_PHASE: Short
        val AT_TARGET: Short
        val BUBBLING_PHASE: Short
    }
}

@public external interface CompositionEventInit : UIEventInit {
    var data: String? /* = "" */
    get() = definedExternally
    set(value) = definedExternally
}

@Suppress("INVISIBLE_REFERENCE", "INVISIBLE_MEMBER")
@kotlin.internal.InlineOnly
@public inline fun CompositionEventInit(data: String? = "", view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): CompositionEventInit {
    val o = js("{}")
    o["data"] = data
    o["view"] = view
    o["detail"] = detail
    o["bubbles"] = bubbles
    o["cancelable"] = cancelable
    o["composed"] = composed
    return o
}

/** Exposes the JavaScript [Event](https://developer.mozilla.org/en/docs/Web/API/Event) to Kotlin */
@public external open class Event(type: String, eventInitDict: EventInit = definedExternally) {
    open val type: String
    open val target: EventTarget?
    open val currentTarget: EventTarget?
    open val eventPhase: Short
    open val bubbles: Boolean
    open val cancelable: Boolean
    open val defaultPrevented: Boolean
    open val composed: Boolean
    open val isTrusted: Boolean
    open val timeStamp: Number
    fun composedPath(): Array<EventTarget>
    fun stopPropagation()
    fun stopImmediatePropagation()
    fun preventDefault()
    fun initEvent(type: String, bubbles: Boolean, cancelable: Boolean)
    companion object {
        val NONE: Short
        val CAPTURING_PHASE: Short
        val AT_TARGET: Short
        val BUBBLING_PHASE: Short
    }
}

/** Exposes the JavaScript [EventTarget](https://developer.mozilla.org/en/docs/Web/API/EventTarget) to Kotlin */
@public external abstract class EventTarget {
    fun addEventListener(type: String, callback: EventListener?, options: dynamic = definedExternally)
    fun addEventListener(type: String, callback: ((Event) -> Unit)?, options: dynamic = definedExternally)
    fun removeEventListener(type: String, callback: EventListener?, options: dynamic = definedExternally)
    fun removeEventListener(type: String, callback: ((Event) -> Unit)?, options: dynamic = definedExternally)
    fun dispatchEvent(event: Event): Boolean
}

/** Exposes the JavaScript [EventListener](https://developer.mozilla.org/en/docs/Web/API/EventListener) to Kotlin */
@public external interface EventListener {
    fun handleEvent(event: Event)
}

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 * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.
 */
// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!
// See github.com/kotlin/dukat for details
package org.w3c.dom
import kotlin.js.*
import org.khronos.webgl.*
import org.w3c.dom.clipboard.*
import org.w3c.dom.css.*
import org.w3c.dom.encryptedmedia.*
import org.w3c.dom.events.*
import org.w3c.dom.mediacapture.*
import org.w3c.dom.mediasource.*
import org.w3c.dom.pointerevents.*

```

```

org.w3c.dom.svg.*\nimport org.w3c.fetch.*\nimport org.w3c.files.*\nimport org.w3c.performance.*\nimport
org.w3c.workers.*\nimport org.w3c.xhr.*\n\npublic external abstract class HTMLAllCollection {\n  open val
length: Int\n  fun item(nameOrIndex: String = definedExternally): UnionElementOrHTMLCollection?\n  fun
namedItem(name: String): UnionElementOrHTMLCollection?\n}\n\n@Suppress("\nINVISIBLE_REFERENCE",
\nINVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun
HTMLAllCollection.get(index: Int): Element? =
asDynamic()[index]\n\n@Suppress("\nINVISIBLE_REFERENCE",
\nINVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun
HTMLAllCollection.get(name: String): UnionElementOrHTMLCollection? = asDynamic()[name]\n\n/**\n *
Exposes the JavaScript
[HTMLFormControlsCollection](https://developer.mozilla.org/en/docs/Web/API/HTMLFormControlsCollection)
to Kotlin\n * \n\npublic external abstract class HTMLFormControlsCollection : HTMLCollection\n\n/**\n * Exposes
the JavaScript [RadioNodeList](https://developer.mozilla.org/en/docs/Web/API/RadioNodeList) to Kotlin\n
* \n\npublic external abstract class RadioNodeList : NodeList, UnionElementOrRadioNodeList {\n  open var value:
String\n}\n\n/**\n * Exposes the JavaScript
[HTMLOptionsCollection](https://developer.mozilla.org/en/docs/Web/API/HTMLOptionsCollection) to Kotlin\n
* \n\npublic
external abstract class HTMLOptionsCollection : HTMLCollection {\n  override var length: Int\n  open var
selectedIndex: Int\n  fun add(element: UnionHTMLOptGroupElementOrHTMLOptionElement, before: dynamic =
definedExternally)\n  fun remove(index: Int)\n}\n\n@Suppress("\nINVISIBLE_REFERENCE",
\nINVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun
HTMLOptionsCollection.set(index: Int, option: HTMLOptionElement?) { asDynamic()[index] = option }\n\n/**\n *
Exposes the JavaScript [HTMLInputElement](https://developer.mozilla.org/en/docs/Web/API/HTMLInputElement) to
Kotlin\n * \n\npublic external abstract class HTMLInputElement : Element, GlobalEventHandlers,
DocumentAndElementEventHandlers, ElementContentEditable, ElementCSSInlineStyle {\n  open var title:
String\n  open var lang: String\n  open var translate: Boolean\n  open var dir: String\n  open val dataset:
DOMStringMap\n  open var hidden: Boolean\n  open var tabIndex: Int\n  open var accessKey: String\n
  open val accessKeyLabel: String\n  open var draggable: Boolean\n  open val dropzone: DOMTokenList\n
  open var contextMenu: HTMLMenuElement?\n  open var spellcheck: Boolean\n  open var innerText: String\n
  open val offsetParent: Element?\n  open val offsetTop: Int\n  open val offsetLeft: Int\n  open val offsetWidth:
Int\n  open val offsetHeight: Int\n  fun click()\n  fun focus()\n  fun blur()\n  fun forceSpellCheck()\n}\n
companion object {\n  val ELEMENT_NODE: Short\n  val ATTRIBUTE_NODE: Short\n  val
TEXT_NODE: Short\n  val CDATA_SECTION_NODE: Short\n  val ENTITY_REFERENCE_NODE:
Short\n  val ENTITY_NODE: Short\n  val PROCESSING_INSTRUCTION_NODE: Short\n  val
COMMENT_NODE: Short\n  val DOCUMENT_NODE: Short\n  val DOCUMENT_TYPE_NODE: Short\n
  val DOCUMENT_FRAGMENT_NODE: Short\n  val NOTATION_NODE: Short\n  val
DOCUMENT_POSITION_DISCONNECTED: Short\n  val DOCUMENT_POSITION_PRECEDING:
Short\n  val DOCUMENT_POSITION_FOLLOWING: Short\n  val
DOCUMENT_POSITION_CONTAINS: Short\n  val DOCUMENT_POSITION_CONTAINED_BY: Short\n
  val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n  }\n}\n\n/**\n * Exposes the
JavaScript [HTMLUnknownElement](https://developer.mozilla.org/en/docs/Web/API/HTMLUnknownElement) to
Kotlin\n * \n\npublic external abstract class HTMLUnknownElement : HTMLInputElement {\n  companion object {\n
  val ELEMENT_NODE: Short\n  val ATTRIBUTE_NODE: Short\n  val TEXT_NODE: Short\n  val
CDATA_SECTION_NODE: Short\n  val ENTITY_REFERENCE_NODE: Short\n  val ENTITY_NODE:
Short\n  val PROCESSING_INSTRUCTION_NODE: Short\n  val COMMENT_NODE: Short\n  val
DOCUMENT_NODE: Short\n  val DOCUMENT_TYPE_NODE: Short\n  val
DOCUMENT_FRAGMENT_NODE: Short\n  val NOTATION_NODE: Short\n  val
DOCUMENT_POSITION_DISCONNECTED: Short\n  val DOCUMENT_POSITION_PRECEDING:

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    val DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    } \n} \n \n /** \n * Exposes the JavaScript
[HTMLLinkElement](https://developer.mozilla.org/en/docs/Web/API/HTMLLinkElement) to Kotlin \n * \n public
external abstract class HTMLLinkElement : HTMLElement, LinkStyle { \n
    open var href: String \n    open var crossOrigin: String? \n    open var rel: String \n    open var `as`:
RequestDestination \n    open val relList: DOMTokenList \n    open var media: String \n    open var nonce: String \n
    open var hreflang: String \n    open var type: String \n    open val sizes: DOMTokenList \n    open var referrerPolicy:
String \n    open var charset: String \n    open var rev: String \n    open var target: String \n    open var scope: String \n
    open var workerType: WorkerType \n \n    companion object { \n        val ELEMENT_NODE: Short\n        val
ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED:
Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n        val
DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    } \n} \n \n /** \n * Exposes the JavaScript
[HTMLMetaElement](https://developer.mozilla.org/en/docs/Web/API/HTMLMetaElement) to Kotlin \n * \n public
external abstract class HTMLMetaElement : HTMLElement { \n    open var name: String \n    open var httpEquiv:
String \n    open var content: String \n    open var scheme: String \n \n    companion object { \n        val
ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val
CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE:
Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    } \n} \n \n /** \n * Exposes the JavaScript
[HTMLStyleElement](https://developer.mozilla.org/en/docs/Web/API/HTMLStyleElement) to Kotlin \n * \n public
external abstract class HTMLStyleElement : HTMLElement, LinkStyle { \n    open var media: String \n    open var
nonce: String \n    open var type: String \n \n    companion object { \n        val ELEMENT_NODE: Short\n        val
ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    } \n} \n \n /** \n * Exposes the JavaScript
[HTMLBodyElement](https://developer.mozilla.org/en/docs/Web/API/HTMLBodyElement) to Kotlin \n * \n public
external abstract class HTMLBodyElement : HTMLElement, WindowEventHandlers { \n    open var text: String \n

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open var link: String\n open var vLink: String\n open var aLink: String\n open var bgColor: String\n open
var background: String\n\n companion object {\n val ELEMENT_NODE: Short\n val
ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE:
Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val
PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val
DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val
DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val
DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript
[HTMLHeadingElement](https://developer.mozilla.org/en/docs/Web/API/HTMLHeadingElement) to Kotlin\n
*\npublic external abstract class HTMLHeadingElement : HTMLElement {\n open var align: String\n\n
companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val
TEXT_NODE: Short\n val CDATA_SECTION_NODE:
Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val
PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val
DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val
DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val
DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript
[HTMLParagraphElement](https://developer.mozilla.org/en/docs/Web/API/HTMLParagraphElement) to Kotlin\n
*\npublic external abstract class HTMLParagraphElement : HTMLElement {\n open var align: String\n\n
companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val
TEXT_NODE:
Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val
ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE:
Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val
DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val
DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript
[HTMLHRElement](https://developer.mozilla.org/en/docs/Web/API/HTMLHRElement) to Kotlin\n *\npublic
external abstract class HTMLHRElement : HTMLElement {\n open var align: String\n open var color: String\n
open var noShade: Boolean\n open var size: String\n open var width: String\n\n
companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val
TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE:
Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val
COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n
val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val
DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript
[HTMLPreElement](https://developer.mozilla.org/en/docs/Web/API/HTMLPreElement) to Kotlin\n *\npublic

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external abstract class HTMLPreElement : HTMLInputElement {
    open var width: Int
    companion object {
        val ELEMENT_NODE: Short
        val ATTRIBUTE_NODE: Short
        val TEXT_NODE: Short
        val CDATA_SECTION_NODE: Short
        val ENTITY_REFERENCE_NODE: Short
        val ENTITY_NODE: Short
        val PROCESSING_INSTRUCTION_NODE: Short
        val COMMENT_NODE: Short
        val DOCUMENT_NODE: Short
        val DOCUMENT_TYPE_NODE: Short
        val DOCUMENT_FRAGMENT_NODE: Short
        val NOTATION_NODE: Short
        val DOCUMENT_POSITION_DISCONNECTED: Short
        val DOCUMENT_POSITION_PRECEDING: Short
        val DOCUMENT_POSITION_FOLLOWING: Short
        val DOCUMENT_POSITION_CONTAINS: Short
        val DOCUMENT_POSITION_CONTAINED_BY: Short
        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short
    }
}

/** Exposes the JavaScript [HTMLQuoteElement](https://developer.mozilla.org/en/docs/Web/API/HTMLQuoteElement) to Kotlin */
@public
external abstract class HTMLQuoteElement : HTMLInputElement {
    open var cite: String
    companion object {
        val ELEMENT_NODE: Short
        val ATTRIBUTE_NODE: Short
        val TEXT_NODE: Short
        val CDATA_SECTION_NODE: Short
        val ENTITY_REFERENCE_NODE: Short
        val ENTITY_NODE: Short
        val PROCESSING_INSTRUCTION_NODE: Short
        val COMMENT_NODE: Short
        val DOCUMENT_NODE: Short
        val DOCUMENT_TYPE_NODE: Short
        val DOCUMENT_FRAGMENT_NODE: Short
        val NOTATION_NODE: Short
        val DOCUMENT_POSITION_DISCONNECTED: Short
        val DOCUMENT_POSITION_PRECEDING: Short
        val DOCUMENT_POSITION_FOLLOWING: Short
        val DOCUMENT_POSITION_CONTAINS: Short
        val DOCUMENT_POSITION_CONTAINED_BY: Short
        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short
    }
}

/** Exposes the JavaScript [HTMLLOListElement](https://developer.mozilla.org/en/docs/Web/API/HTMLLOListElement) to Kotlin */
@public
external abstract class HTMLLOListElement : HTMLInputElement {
    open var reversed: Boolean
    open var start: Int
    open var type: String
    open var compact: Boolean
    companion object {
        val ELEMENT_NODE: Short
        val ATTRIBUTE_NODE: Short
        val TEXT_NODE: Short
        val CDATA_SECTION_NODE: Short
        val ENTITY_REFERENCE_NODE: Short
        val ENTITY_NODE: Short
        val PROCESSING_INSTRUCTION_NODE: Short
        val COMMENT_NODE: Short
        val DOCUMENT_NODE: Short
        val DOCUMENT_TYPE_NODE: Short
        val DOCUMENT_FRAGMENT_NODE: Short
        val NOTATION_NODE: Short
        val DOCUMENT_POSITION_DISCONNECTED: Short
        val DOCUMENT_POSITION_PRECEDING: Short
        val DOCUMENT_POSITION_FOLLOWING: Short
        val DOCUMENT_POSITION_CONTAINS: Short
        val DOCUMENT_POSITION_CONTAINED_BY: Short
        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short
    }
}

/** Exposes the JavaScript [HTMLLUListElement](https://developer.mozilla.org/en/docs/Web/API/HTMLLUListElement) to Kotlin */
@public
external abstract class HTMLLUListElement : HTMLInputElement {
    open var compact: Boolean
    open var type: String
    companion object {
        val ELEMENT_NODE: Short
        val ATTRIBUTE_NODE: Short
        val TEXT_NODE: Short
        val CDATA_SECTION_NODE: Short
        val ENTITY_REFERENCE_NODE: Short
        val ENTITY_NODE: Short
        val PROCESSING_INSTRUCTION_NODE: Short
        val COMMENT_NODE: Short
        val DOCUMENT_NODE: Short
        val DOCUMENT_TYPE_NODE: Short
        val DOCUMENT_FRAGMENT_NODE: Short
        val NOTATION_NODE: Short
        val DOCUMENT_POSITION_DISCONNECTED: Short
        val DOCUMENT_POSITION_PRECEDING: Short
        val DOCUMENT_POSITION_FOLLOWING: Short
        val DOCUMENT_POSITION_CONTAINS: Short
        val DOCUMENT_POSITION_CONTAINED_BY: Short
        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short
    }
}

/** Exposes the JavaScript [HTMLLIElement](https://developer.mozilla.org/en/docs/Web/API/HTMLLIElement) to Kotlin */
@public
external abstract class HTMLLIElement : HTMLInputElement {
    open var value: Int
    open var type: String
    companion object {
        val ELEMENT_NODE: Short
        val ATTRIBUTE_NODE:

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Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val
ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n    val
PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[HTMLDListElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDListElement)
to Kotlin\n * \npublic external abstract class HTMLDListElement : HTMLElement {\n    open var compact:
Boolean\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n
val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE:
Short\n        val ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val
COMMENT_NODE: Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n
        val DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[HTMLDivElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDivElement) to Kotlin\n * \npublic
external abstract class HTMLDivElement : HTMLElement {\n    open var align: String\n\n    companion object {\n
        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val
CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE:
Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[HTMLAnchorElement](https://developer.mozilla.org/en/docs/Web/API/HTMLAnchorElement) to Kotlin\n
* \npublic external abstract class HTMLAnchorElement : HTMLElement, HTMLHyperlinkElementUtils {\n    open
var target: String\n    open var download: String\n    open var ping: String\n    open var rel: String\n    open val
relList: DOMTokenList\n    open var hreflang: String\n    open var type: String\n    open var text: String\n    open
var referrerPolicy: String\n    open var coords: String\n    open var charset: String\n    open var name: String\n
open var rev: String\n    open var shape: String\n\n    companion object {\n        val ELEMENT_NODE: Short\n
val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n
val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n
        val DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[HTMLDataElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDataElement) to Kotlin\n * \npublic
external abstract class HTMLDataElement : HTMLElement {\n    open var value: String\n\n    companion object {\n

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    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val
CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE:
Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE:
Short\n    val DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[HTMLTimeElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTimeElement) to Kotlin\n *^npublic
external abstract class HTMLTimeElement : HTMLElement {\n    open var dateTime: String\n\n    companion
object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE:
Short\n        val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val
ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE:
Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE:
Short\n        val DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[HTMLSpanElement](https://developer.mozilla.org/en/docs/Web/API/HTMLSpanElement) to Kotlin\n *^npublic
external abstract class HTMLSpanElement : HTMLElement {\n    companion object {\n        val
ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val
CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE:
Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n
        val DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[HTMLBRElement](https://developer.mozilla.org/en/docs/Web/API/HTMLBRElement) to Kotlin\n *^npublic
external abstract class HTMLBRElement : HTMLElement {\n    open var clear: String\n\n    companion object {\n
        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val
CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE:
Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n
        val DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[HTMLHyperlinkElementUtils](https://developer.mozilla.org/en/docs/Web/API/HTMLHyperlinkElementUtils) to
Kotlin\n *^npublic external interface HTMLHyperlinkElementUtils {\n    var href: String\n    val origin: String\n
    var protocol: String\n    var username: String\n    var password: String\n    var host: String\n    var hostname:
String\n    var port: String\n    var pathname: String\n    var search: String\n    var hash: String\n}\n\n/**\n * Exposes
the JavaScript [HTMLModElement](https://developer.mozilla.org/en/docs/Web/API/HTMLModElement) to
Kotlin\n *^npublic

```

```

external abstract class HTMLModElement : HTMLInputElement {\n  open var cite: String\n  open var dateTime:
String\n\n  companion object {\n    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n
val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE:
Short\n    val ENTITY_NODE: Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val
COMMENT_NODE: Short\n    val DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n
val DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n  }\n}\n\n/**\n * Exposes the JavaScript
[HTMLPictureElement](https://developer.mozilla.org/en/docs/Web/API/HTMLPictureElement)
to Kotlin\n\n */\npublic external abstract class HTMLPictureElement : HTMLInputElement {\n  companion object {\n
val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val
CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE:
Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n  }\n}\n\n/**\n * Exposes the JavaScript
[HTMLSourceElement](https://developer.mozilla.org/en/docs/Web/API/HTMLSourceElement)
to Kotlin\n\n */\npublic external abstract class HTMLSourceElement : HTMLInputElement {\n  open var src: String\n
open var type: String\n  open var srcset: String\n  open var sizes: String\n  open var media: String\n\n
companion object {\n    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val
TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE:
Short\n    val ENTITY_NODE: Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val
COMMENT_NODE: Short\n    val DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n
val DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n  }\n}\n\n/**\n * Exposes the JavaScript
[HTMLImageElement](https://developer.mozilla.org/en/docs/Web/API/HTMLImageElement) to Kotlin\n\n
*/\npublic external abstract class HTMLImageElement : HTMLInputElement, HTMLORSVGImageElement,
TexImageSource {\n  open var alt: String\n  open var src: String\n  open var srcset: String\n  open var sizes:
String\n  open var crossOrigin: String?\n  open var useMap: String\n  open var isMap: Boolean\n  open var
width: Int\n  open var height: Int\n  open val naturalWidth: Int\n  open val naturalHeight: Int\n  open val
complete: Boolean\n  open val currentSrc: String\n  open var referrerPolicy: String\n  open var name: String\n
open var lowsrc: String\n  open var align: String\n  open var hspace: Int\n  open var vspace: Int\n  open var
longDesc: String\n  open var border: String\n  open val x: Int\n  open val y: Int\n\n  companion object {\n
val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n
val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val
ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n    val
PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val

```

```

DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    } \n} \n \n /** \n * Exposes the JavaScript
[HTMLIFrameElement](https://developer.mozilla.org/en/docs/Web/API/HTMLIFrameElement) to Kotlin \n
*\npublic external abstract class HTMLIFrameElement : HTMLElement { \n    open var src: String \n    open var
srcdoc: String \n    open var name: String \n    open val sandbox: DOMTokenList \n
    open var allowFullscreen: Boolean \n    open var allowUserMedia: Boolean \n    open var width: String \n    open
var height: String \n    open var referrerPolicy: String \n    open val contentDocument: Document? \n    open val
contentWindow: Window? \n    open var align: String \n    open var scrolling: String \n    open var frameborder:
String \n    open var longDesc: String \n    open var marginHeight: String \n    open var marginWidth: String \n    fun
getSVGDocument(): Document? \n \n    companion object { \n        val ELEMENT_NODE: Short\n        val
ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n
        val DOCUMENT_POSITION_PRECEDING: Short\n        val DOCUMENT_POSITION_FOLLOWING:
Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n        val
DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    } \n} \n \n /** \n * Exposes the JavaScript
[HTMLEmbedElement](https://developer.mozilla.org/en/docs/Web/API/HTMLEmbedElement) to Kotlin \n
*\npublic external abstract class HTMLEmbedElement : HTMLElement { \n    open var src: String \n    open var
type: String \n    open var width: String \n    open var height: String \n    open var align: String \n    open var name:
String \n    fun getSVGDocument(): Document? \n \n    companion object { \n        val ELEMENT_NODE: Short\n
        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n
        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE:
Short\n        val DOCUMENT_TYPE_NODE: Short\n        val DOCUMENT_FRAGMENT_NODE: Short\n
        val NOTATION_NODE: Short\n        val DOCUMENT_POSITION_DISCONNECTED: Short\n        val
DOCUMENT_POSITION_PRECEDING: Short\n        val DOCUMENT_POSITION_FOLLOWING: Short\n
        val DOCUMENT_POSITION_CONTAINS: Short\n        val DOCUMENT_POSITION_CONTAINED_BY:
Short\n        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    } \n} \n \n /** \n * Exposes
the JavaScript [HTMLObjectElement](https://developer.mozilla.org/en/docs/Web/API/HTMLObjectElement) to
Kotlin \n
*\npublic external abstract class HTMLObjectElement : HTMLElement { \n    open var data: String \n    open var
type: String \n    open var typeMustMatch: Boolean \n    open var name: String \n    open var useMap:
String \n    open val form: HTMLFormElement? \n    open var width: String \n    open var height: String \n    open val
contentDocument: Document? \n    open val contentWindow: Window? \n    open val willValidate:
Boolean \n    open val validity: ValidityState \n    open val validationMessage: String \n    open var align: String \n
    open var archive: String \n    open var code: String \n    open var declare: Boolean \n    open var hspace: Int \n
    open var standby: String \n    open var vspace: Int \n    open var codeBase: String \n    open var codeType: String \n
    open var border: String \n    fun getSVGDocument(): Document? \n    fun checkValidity(): Boolean \n    fun
reportValidity(): Boolean \n    fun setCustomValidity(error: String) \n \n    companion object { \n        val
ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val
CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE:
Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val

```



```

Short\n    val DOCUMENT_POSITION_FOLLOWING: Short\n    val
DOCUMENT_POSITION_CONTAINS: Short\n    val DOCUMENT_POSITION_CONTAINED_BY: Short\n
    val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the
JavaScript [HTMLTrackElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTrackElement) to Kotlin\n
*\npublic external abstract class HTMLTrackElement : HTMLElement {\n    open var kind: String\n    open var src:
String\n    open var srclang: String\n    open var label: String\n    open var default: Boolean\n    open val readyState:
Short\n    open val track: TextTrack\n\n    companion object {\n        val NONE: Short\n        val LOADING: Short\n
        val LOADED: Short\n        val ERROR: Short\n        val ELEMENT_NODE: Short\n        val
ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE:
Short\n        val COMMENT_NODE: Short\n        val DOCUMENT_NODE: Short\n        val
DOCUMENT_TYPE_NODE: Short\n        val DOCUMENT_FRAGMENT_NODE: Short\n        val
NOTATION_NODE: Short\n        val DOCUMENT_POSITION_DISCONNECTED: Short\n        val
DOCUMENT_POSITION_PRECEDING: Short\n        val DOCUMENT_POSITION_FOLLOWING: Short\n
        val DOCUMENT_POSITION_CONTAINS: Short\n        val DOCUMENT_POSITION_CONTAINED_BY:
Short\n        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes
the JavaScript [HTMLMediaElement](https://developer.mozilla.org/en/docs/Web/API/HTMLMediaElement) to
Kotlin\n
*\npublic external abstract class HTMLMediaElement : HTMLElement {\n    open val error:
MediaError?\n    open var src: String\n    open var srcObject: MediaProvider?\n    open val currentSrc: String\n
open var crossOrigin: String?\n    open val networkState: Short\n    open var preload: String\n    open val buffered:
TimeRanges\n    open val readyState:
Short\n    open val seeking: Boolean\n    open var currentTime: Double\n    open val duration: Double\n    open val
paused: Boolean\n    open var defaultPlaybackRate: Double\n    open var playbackRate: Double\n    open val played:
TimeRanges\n    open val seekable: TimeRanges\n    open val ended: Boolean\n    open var autoplay: Boolean\n
open var loop: Boolean\n    open var controls: Boolean\n    open var volume: Double\n    open var muted: Boolean\n
open var defaultMuted: Boolean\n    open val audioTracks: AudioTrackList\n    open val videoTracks:
VideoTrackList\n    open val textTracks: TextTrackList\n    open val mediaKeys: MediaKeys?\n    open var
onencrypted: ((Event) -> dynamic)?\n    open var onwaitingforkey: ((Event) -> dynamic)?\n    fun load()\n    fun
canPlayType(type: String): CanPlayTypeResult\n    fun fastSeek(time: Double)\n    fun getStartDate(): dynamic\n
fun play(): Promise<Unit>\n    fun pause()\n    fun addTextTrack(kind: TextTrackKind, label: String
= definedExternally, language: String = definedExternally): TextTrack\n    fun setMediaKeys(mediaKeys:
MediaKeys?): Promise<Unit>\n\n    companion object {\n        val NETWORK_EMPTY: Short\n        val
NETWORK_IDLE: Short\n        val NETWORK_LOADING: Short\n        val NETWORK_NO_SOURCE: Short\n
        val HAVE_NOTHING: Short\n        val HAVE_METADATA: Short\n        val HAVE_CURRENT_DATA:
Short\n        val HAVE_FUTURE_DATA: Short\n        val HAVE_ENOUGH_DATA: Short\n        val
ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val
CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE:
Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING:
Short\n        val DOCUMENT_POSITION_FOLLOWING: Short\n        val
DOCUMENT_POSITION_CONTAINS: Short\n        val DOCUMENT_POSITION_CONTAINED_BY: Short\n
        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the
JavaScript [MediaError](https://developer.mozilla.org/en/docs/Web/API/MediaError) to Kotlin\n
*\npublic external
abstract class MediaError {\n    open val code: Short\n\n    companion object {\n        val
MEDIA_ERR_ABORTED: Short\n        val MEDIA_ERR_NETWORK: Short\n        val MEDIA_ERR_DECODE:

```

```

Short\n    val MEDIA_ERR_SRC_NOT_SUPPORTED: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[AudioTrackList](https://developer.mozilla.org/en/docs/Web/API/AudioTrackList) to Kotlin\n *\npublic external
abstract class AudioTrackList : EventTarget {\n    open val length: Int\n    open var onchange: ((Event) ->
dynamic)?\n    open var onaddtrack: ((TrackEvent) -> dynamic)?\n    open var onremovetrack: ((TrackEvent) ->
dynamic)?\n
    fun getTrackById(id: String): AudioTrack?\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun AudioTrackList.get(index:
Int): AudioTrack? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript
[AudioTrack](https://developer.mozilla.org/en/docs/Web/API/AudioTrack) to Kotlin\n *\npublic external abstract
class AudioTrack : UnionAudioTrackOrTextTrackOrVideoTrack {\n    open val id: String\n    open val kind:
String\n    open val label: String\n    open val language: String\n    open var enabled: Boolean\n    open val
sourceBuffer: SourceBuffer?\n}\n\n/**\n * Exposes the JavaScript
[VideoTrackList](https://developer.mozilla.org/en/docs/Web/API/VideoTrackList) to Kotlin\n *\npublic external
abstract class VideoTrackList : EventTarget {\n    open val length: Int\n    open val selectedIndex: Int\n    open var
onchange: ((Event) -> dynamic)?\n    open var onaddtrack: ((TrackEvent) -> dynamic)?\n    open var
onremovetrack:
((TrackEvent) -> dynamic)?\n    fun getTrackById(id: String):
VideoTrack?\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun VideoTrackList.get(index:
Int): VideoTrack? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript
[VideoTrack](https://developer.mozilla.org/en/docs/Web/API/VideoTrack) to Kotlin\n *\npublic external abstract
class VideoTrack : UnionAudioTrackOrTextTrackOrVideoTrack {\n    open val id: String\n    open val kind:
String\n    open val label: String\n    open val language: String\n    open var selected: Boolean\n    open val
sourceBuffer: SourceBuffer?\n}\n\npublic external abstract class TextTrackList : EventTarget {\n    open val length:
Int\n    open var onchange: ((Event) -> dynamic)?\n    open var onaddtrack: ((TrackEvent) -> dynamic)?\n    open
var onremovetrack: ((TrackEvent) -> dynamic)?\n    fun getTrackById(id: String):
TextTrack?\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic
inline operator fun TextTrackList.get(index: Int): TextTrack? = asDynamic()[index]\n\n/**\n * Exposes the
JavaScript [TextTrack](https://developer.mozilla.org/en/docs/Web/API/TextTrack) to Kotlin\n *\npublic external
abstract class TextTrack : EventTarget, UnionAudioTrackOrTextTrackOrVideoTrack {\n    open val kind:
TextTrackKind\n    open val label: String\n    open val language: String\n    open val id: String\n    open val
inBandMetadataTrackDispatchType: String\n    open var mode: TextTrackMode\n    open val cues:
TextTrackCueList?\n    open val activeCues: TextTrackCueList?\n    open var oncuechange: ((Event) ->
dynamic)?\n    open val sourceBuffer: SourceBuffer?\n    fun addCue(cue: TextTrackCue)\n    fun removeCue(cue:
TextTrackCue)\n}\n\npublic external abstract class TextTrackCueList {\n    open val length: Int\n    fun
getCueById(id: String): TextTrackCue?\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic
inline operator fun TextTrackCueList.get(index: Int): TextTrackCue? = asDynamic()[index]\n\n/**\n * Exposes the
JavaScript [TextTrackCue](https://developer.mozilla.org/en/docs/Web/API/TextTrackCue) to Kotlin\n *\npublic
external abstract class TextTrackCue : EventTarget {\n    open val track: TextTrack?\n    open var id: String\n
open var startTime: Double\n    open var endTime: Double\n    open var pauseOnExit: Boolean\n    open var
onenter: ((Event) -> dynamic)?\n    open var onexit: ((Event) -> dynamic)?\n}\n\n/**\n * Exposes the JavaScript
[TimeRanges](https://developer.mozilla.org/en/docs/Web/API/TimeRanges) to Kotlin\n *\npublic external abstract
class TimeRanges {\n    open val length: Int\n    fun start(index: Int): Double\n    fun end(index: Int):
Double\n}\n\n/**\n * Exposes the JavaScript
[TrackEvent](https://developer.mozilla.org/en/docs/Web/API/TrackEvent) to Kotlin\n *\npublic external open class
TrackEvent(type: String, eventInitDict: TrackEventInit

```



```

= definedExternally) : Event {\n  open val track: UnionAudioTrackOrTextTrackOrVideoTrack?\n\n  companion
object {\n    val NONE: Short\n    val CAPTURING_PHASE: Short\n    val AT_TARGET: Short\n    val
BUBBLING_PHASE: Short\n  }\n\n\npublic external interface TrackEventInit : EventInit {\n  var track:
UnionAudioTrackOrTextTrackOrVideoTrack? /* = null */\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun TrackEventInit(track:
UnionAudioTrackOrTextTrackOrVideoTrack? = null, bubbles: Boolean? = false, cancelable: Boolean? = false,
composed: Boolean? = false): TrackEventInit {\n  val o = js(\"({})\")\n  o[\"track\"] = track\n  o[\"bubbles\"] =
bubbles\n  o[\"cancelable\"] = cancelable\n  o[\"composed\"] = composed\n  return o\n}\n\n/**\n * Exposes the
JavaScript [HTMLMapElement](https://developer.mozilla.org/en/docs/Web/API/HTMLMapElement)
to Kotlin\n */\n\npublic external abstract class HTMLMapElement : HTMLElement {\n  open var name: String\n
open val areas: HTMLCollection\n\n  companion object {\n    val ELEMENT_NODE: Short\n    val
ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val
ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n    val
PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n  }\n\n\n/**\n * Exposes the JavaScript
[HTMLAreaElement](https://developer.mozilla.org/en/docs/Web/API/HTMLAreaElement)
to Kotlin\n */\n\npublic external abstract class HTMLAreaElement : HTMLElement, HTMLHyperlinkElementUtils
{\n  open var alt: String\n  open var coords: String\n  open var shape: String\n  open var target: String\n
open var download: String\n  open var ping: String\n  open var rel: String\n  open val relList: DOMTokenList\n
open var referrerPolicy: String\n  open var noHref: Boolean\n\n  companion object {\n    val
ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val
CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE:
Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n
    val DOCUMENT_POSITION_PRECEDING: Short\n    val DOCUMENT_POSITION_FOLLOWING:
Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n    val
DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n  }\n\n\n/**\n * Exposes the JavaScript
[HTMLTableElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTableElement) to Kotlin\n */\n\npublic
external abstract class HTMLTableElement : HTMLElement {\n  open var caption:
HTMLTableCaptionElement?\n  open var tHead: HTMLTableSectionElement?\n  open var tFoot:
HTMLTableSectionElement?\n  open val tBodies: HTMLCollection\n  open val rows: HTMLCollection\n  open
var align: String\n  open var border: String\n  open var frame: String\n  open var rules: String\n  open var
summary: String\n  open var width: String\n  open var bgColor: String\n  open var cellPadding: String\n  open
var cellSpacing: String\n  fun createCaption(): HTMLTableCaptionElement\n  fun deleteCaption()\n
    fun createTHead(): HTMLTableSectionElement\n  fun deleteTHead()\n  fun createTFoot():
HTMLTableSectionElement\n  fun deleteTFoot()\n  fun createTBody(): HTMLTableSectionElement\n  fun
insertRow(index: Int = definedExternally): HTMLTableRowElement\n  fun deleteRow(index: Int)\n\n
companion object {\n    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val
TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE:

```

```
Short\n    val ENTITY_NODE: Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n    val DOCUMENT_POSITION_CONTAINED_BY:
```

```
Short\n    val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
```

[HTMLTableCaptionElement](<https://developer.mozilla.org/en/docs/Web/API/HTMLTableCaptionElement>) to Kotlin

```
\n * public external abstract class HTMLTableCaptionElement : HTMLInputElement {\n    open var align: String\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
```

```
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
```

[HTMLTableColElement](<https://developer.mozilla.org/en/docs/Web/API/HTMLTableColElement>) to Kotlin

```
\n * public external abstract class HTMLTableColElement : HTMLInputElement {\n    open var span: Int\n    open var align: String\n    open var ch: String\n    open var chOff: String\n    open var vAlign: String\n    open var width: String\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val DOCUMENT_POSITION_DISCONNECTED:
```

```
Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n    val
```

```
DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n    val
```

```
DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
```

```
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
```

[HTMLTableSectionElement](<https://developer.mozilla.org/en/docs/Web/API/HTMLTableSectionElement>) to Kotlin

```
\n * public external abstract class HTMLTableSectionElement : HTMLInputElement {\n    open val rows: HTMLCollection\n    open var align: String\n    open var ch: String\n    open var chOff: String\n    open var vAlign: String\n\n    fun insertRow(index: Int = definedExternally): HTMLInputElement\n    fun deleteRow(index: Int)\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE:
```

```
Short\n    val COMMENT_NODE: Short\n    val DOCUMENT_NODE: Short\n    val
```

```
DOCUMENT_TYPE_NODE: Short\n    val DOCUMENT_FRAGMENT_NODE: Short\n    val
```

```
NOTATION_NODE: Short\n    val DOCUMENT_POSITION_DISCONNECTED: Short\n    val
```

```
DOCUMENT_POSITION_PRECEDING: Short\n    val DOCUMENT_POSITION_FOLLOWING: Short\n    val
```

```
DOCUMENT_POSITION_CONTAINS: Short\n    val DOCUMENT_POSITION_CONTAINED_BY:
```

```
Short\n    val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
```

[HTMLTableRowElement](<https://developer.mozilla.org/en/docs/Web/API/HTMLTableRowElement>) to Kotlin

```
\n * public external abstract class HTMLTableRowElement : HTMLInputElement {\n    open val rowIndex: Int\n    open
```

```

val sectionRowIndex: Int\n open val cells: HTMLCollection\n open var align: String\n open var ch: String\n
open var chOff: String\n open var vAlign: String\n open var bgColor: String\n fun insertCell(index: Int =
definedExternally):
    HTMLElement\n fun deleteCell(index: Int)\n\n companion object {\n val ELEMENT_NODE: Short\n
val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n
val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val
PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val
DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val
DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val
DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript
[HTMLTableCellElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTableCellElement) to Kotlin\n
*/\npublic external
abstract class HTMLTableCellElement : HTMLElement {\n open var colSpan: Int\n open var rowSpan: Int\n
open var headers: String\n open val cellIndex: Int\n open var scope: String\n open var abbr: String\n open var
align: String\n open var axis: String\n open var height: String\n open var width: String\n open var ch:
String\n open var chOff: String\n open var noWrap: Boolean\n open var vAlign: String\n open var bgColor:
String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n
val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE:
Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val
COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n
val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val
DOCUMENT_POSITION_DISCONNECTED: Short\n
val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING:
Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val
DOCUMENT_POSITION_CONTAINED_BY: Short\n val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript
[HTMLFormElement](https://developer.mozilla.org/en/docs/Web/API/HTMLFormElement) to Kotlin\n
*/\npublic external abstract class HTMLFormElement : HTMLElement {\n open var acceptCharset: String\n open var
action: String\n open var autocomplete: String\n open var enctype: String\n open var encoding: String\n open
var method: String\n open var name: String\n open var noValidate: Boolean\n open var target: String\n open
val elements: HTMLFormControlsCollection\n open val length: Int\n fun submit()\n fun reset()\n fun
checkValidity(): Boolean\n fun reportValidity(): Boolean\n\n companion object {\n val ELEMENT_NODE:
Short\n val ATTRIBUTE_NODE:
Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val
ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val
PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val
DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val
DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val
DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n
}\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun
HTMLFormElement.get(index: Int): Element? =

```



```

    open var formEnctype: String\n    open var formMethod: String\n    open var formNoValidate: Boolean\n    open
var formTarget: String\n    open var name: String\n    open var type: String\n    open var value: String\n    open var
menu: HTMLMenuElement?\n    open val willValidate: Boolean\n    open val validity: ValidityState\n    open val
validationMessage: String\n    open val labels: NodeList\n    fun checkValidity(): Boolean\n    fun reportValidity():
Boolean\n    fun setCustomValidity(error: String)\n\n    companion object {\n        val ELEMENT_NODE:
Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val
CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE:
Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n\n\n    * Exposes the JavaScript
[HTMLSelectElement](https://developer.mozilla.org/en/docs/Web/API/HTMLSelectElement) to Kotlin\n    *^\n\npublic
external abstract class HTMLSelectElement : HTMLInputElement, ItemArrayLike<Element> {\n    open var
autocomplete: String\n
    open var autofocus: Boolean\n    open var disabled: Boolean\n    open val form: HTMLFormElement?\n    open
var multiple: Boolean\n    open var name: String\n    open var required: Boolean\n    open var size: Int\n    open val
type: String\n    open val options: HTMLOptionsCollection\n    override var length: Int\n    open val
selectedOptions: HTMLCollection\n    open var selectedIndex: Int\n    open var value: String\n    open val
willValidate: Boolean\n    open val validity: ValidityState\n    open val validationMessage: String\n    open val
labels: NodeList\n    fun namedItem(name: String): HTMLOptionElement?\n    fun add(element:
UnionHTMLOptGroupElementOrHTMLOptionElement, before: dynamic = definedExternally)\n    fun
remove(index: Int)\n    fun checkValidity(): Boolean\n    fun reportValidity(): Boolean\n    fun
setCustomValidity(error: String)\n    override fun item(index: Int): Element?\n\n    companion object {\n        val
ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE:
Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n\n\n    @Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n    @kotlin.internal.InlineOnly\n    npublic inline operator fun
HTMLSelectElement.get(index: Int): Element? =
asDynamic()[index]\n\n\n    @Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n    @kotlin.internal.InlineOnly\n    npublic inline operator fun
HTMLSelectElement.set(index:
Int, option: HTMLOptionElement?) { asDynamic()[index] = option }\n\n\n    * Exposes the JavaScript
[HTMLDataListElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDataListElement) to Kotlin\n    *^\n\npublic
external abstract class HTMLDataListElement : HTMLInputElement {\n    open val options:
HTMLCollection\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE:
Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val

```

```

PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[HTMLOptGroupElement](https://developer.mozilla.org/en/docs/Web/API/HTMLOptGroupElement) to Kotlin\n
*\npublic external abstract class HTMLOptGroupElement : HTMLElement,
UnionHTMLOptGroupElementOrHTMLOptionElement {\n    open var disabled: Boolean\n    open var label:
String\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n
val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE:
Short\n        val ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val
COMMENT_NODE: Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n
        val DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS:
Short\n        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[HTMLOptionElement](https://developer.mozilla.org/en/docs/Web/API/HTMLOptionElement) to Kotlin\n
*\npublic external abstract class HTMLOptionElement : HTMLElement,
UnionHTMLOptGroupElementOrHTMLOptionElement {\n    open var disabled: Boolean\n    open var form:
HTMLFormElement?\n    open var label: String\n    open var defaultSelected: Boolean\n    open var selected:
Boolean\n    open var value: String\n    open var text: String\n    open val index: Int\n\n    companion object {\n
val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val
CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE:
Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n
        val COMMENT_NODE: Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE:
Short\n        val DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[HTMLTextAreaElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTextAreaElement) to Kotlin\n
*\npublic external abstract class HTMLTextAreaElement : HTMLElement {\n    open var autocomplete: String\n
open var autofocus: Boolean\n    open var cols: Int\n    open var dirName: String\n    open var disabled: Boolean\n
open val form: HTMLFormElement?\n    open var inputMode: String\n    open var maxLength: Int\n    open var
minLength: Int\n    open var name:
String\n    open var placeholder: String\n    open var readOnly: Boolean\n    open var required: Boolean\n    open
var rows: Int\n    open var wrap: String\n    open val type: String\n    open var defaultValue: String\n    open var
value: String\n    open val textLength: Int\n    open val willValidate: Boolean\n    open val validity: ValidityState\n
open val validationMessage: String\n    open val labels: NodeList\n    open var selectionStart: Int?\n    open var
selectionEnd: Int?\n    open var selectionDirection: String?\n    fun checkValidity(): Boolean\n    fun
reportValidity(): Boolean\n    fun setCustomValidity(error: String)\n    fun select()\n    fun
setRangeText(replacement: String)\n    fun setRangeText(replacement: String, start: Int, end: Int, selectionMode:
SelectionMode = definedExternally)\n    fun setSelectionRange(start: Int, end: Int, direction: String =
definedExternally)\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE:
Short\n

```



```

DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    } \n } \n \n /** \n * Exposes the JavaScript
[HTMLMeterElement](https://developer.mozilla.org/en/docs/Web/API/HTMLMeterElement) to Kotlin \n * \n public
external abstract class HTMLMeterElement : HTMLElement { \n    open var value: Double \n    open var min:
Double \n    open var max: Double \n    open var low: Double \n    open
    var high: Double \n    open var optimum: Double \n    open val labels: NodeList \n \n    companion object { \n        val
ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val
CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE:
Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    } \n } \n \n /** \n * Exposes the JavaScript
[HTMLFieldSetElement](https://developer.mozilla.org/en/docs/Web/API/HTMLFieldSetElement) to Kotlin \n
* \n public external abstract class HTMLFieldSetElement : HTMLElement { \n    open var disabled: Boolean \n
open val form: HTMLFormElement? \n    open var name: String \n    open val type: String \n    open val elements:
HTMLCollection \n    open val willValidate: Boolean \n    open val validity: ValidityState \n    open val
validationMessage: String \n    fun checkValidity(): Boolean \n    fun reportValidity(): Boolean \n    fun
setCustomValidity(error: String) \n \n    companion object { \n        val ELEMENT_NODE: Short\n        val
ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING:
Short\n        val DOCUMENT_POSITION_FOLLOWING: Short\n        val
DOCUMENT_POSITION_CONTAINS: Short\n        val DOCUMENT_POSITION_CONTAINED_BY: Short \n
        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    } \n } \n \n /** \n * Exposes the
JavaScript [HTMLLegendElement](https://developer.mozilla.org/en/docs/Web/API/HTMLLegendElement) to
Kotlin \n * \n public external abstract class HTMLLegendElement : HTMLElement { \n    open val form:
HTMLFormElement? \n    open var align: String \n \n    companion object { \n        val ELEMENT_NODE: Short\n
        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n
        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED:
Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n        val
DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    } \n } \n \n /** \n * Exposes the JavaScript
[ValidityState](https://developer.mozilla.org/en/docs/Web/API/ValidityState) to Kotlin \n * \n public external
abstract class ValidityState { \n    open val valueMissing: Boolean \n    open val typeMismatch: Boolean \n    open val

```



```

patternMismatch: Boolean\n  open val tooLong: Boolean\n  open val tooShort: Boolean\n  open val
rangeUnderflow: Boolean\n  open val rangeOverflow: Boolean\n  open val stepMismatch: Boolean\n  open val
badInput: Boolean\n  open val customError: Boolean\n  open val valid: Boolean\n}}\n\n**\n * Exposes the
JavaScript [HTMLDetailsElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDetailsElement) to
Kotlin\n */\npublic external
abstract class HTMLDetailsElement : HTMLElement {\n  open var open: Boolean\n\n  companion object {\n
val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val
CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE:
Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n  }\n}\n\npublic external abstract class
HTMLMenuElement : HTMLElement {\n  open var type: String\n  open var label: String\n  open var
compact: Boolean\n\n  companion object {\n    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE:
Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val
ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n    val
PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n  }\n}\n\npublic external abstract class
HTMLMenuItemElement : HTMLElement {\n  open var type: String\n  open var label: String\n  open var icon:
String\n  open var disabled: Boolean\n  open var
checked: Boolean\n  open var radiogroup: String\n  open var default: Boolean\n\n  companion object {\n
val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val
CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE:
Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n  }\n}\n\npublic external open class
RelatedEvent(type: String, eventInitDict: RelatedEventInit = definedExternally) : Event {\n  open val
relatedTarget: EventTarget?\n\n  companion object {\n    val NONE: Short\n    val CAPTURING_PHASE:
Short\n    val AT_TARGET: Short\n    val BUBBLING_PHASE: Short\n  }\n}\n\npublic external interface
RelatedEventInit : EventInit {\n  var relatedTarget: EventTarget? /* = null */\n  get() = definedExternally\n
set(value) = definedExternally\n}}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun RelatedEventInit(relatedTarget:
EventTarget? = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false):
RelatedEventInit {\n  val o = js("{}")\n  o["relatedTarget"] = relatedTarget\n  o["bubbles"] = bubbles\n
o["cancelable"] = cancelable\n  o["composed"] = composed\n  return o\n}\n\n**\n * Exposes the JavaScript
[HTMLDialogElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDialogElement) to Kotlin\n

```

```

*\npublic external abstract class HTMLDialogElement
: HTMLElement {\n  open var open: Boolean\n  open var returnValue: String\n  fun show(anchor:
UnionElementOrMouseEvent = definedExternally)\n  fun showModal(anchor: UnionElementOrMouseEvent =
definedExternally)\n  fun close(returnValue: String = definedExternally)\n\n  companion object {\n    val
ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val
CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE:
Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n
val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n  }\n}\n\n/**\n * Exposes the
JavaScript [HTMLScriptElement](https://developer.mozilla.org/en/docs/Web/API/HTMLScriptElement) to Kotlin\n
*\npublic external abstract class HTMLScriptElement : HTMLElement, HTMLOrSVGScriptElement {\n  open
var src: String\n  open var type: String\n  open var charset: String\n  open var async: Boolean\n  open var defer:
Boolean\n  open var crossOrigin: String?\n  open var text: String\n  open var nonce: String\n  open var event:
String\n  open var htmlFor: String?\n\n  companion object {\n    val ELEMENT_NODE: Short\n    val
ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val
ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n    val
PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE:
Short\n    val NOTATION_NODE: Short\n    val DOCUMENT_POSITION_DISCONNECTED: Short\n
val DOCUMENT_POSITION_PRECEDING: Short\n    val DOCUMENT_POSITION_FOLLOWING: Short\n
val DOCUMENT_POSITION_CONTAINS: Short\n    val DOCUMENT_POSITION_CONTAINED_BY:
Short\n    val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n  }\n}\n\n/**\n * Exposes
the JavaScript [HTMLTemplateElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTemplateElement)
to Kotlin\n
*\npublic external abstract class HTMLTemplateElement : HTMLElement {\n  open val content:
DocumentFragment\n\n  companion object {\n    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE:
Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val
ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n    val
PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE:
Short\n    val DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n  }\n}\n\n/**\n * Exposes the JavaScript
[HTMLSlotElement](https://developer.mozilla.org/en/docs/Web/API/HTMLSlotElement) to Kotlin\n
*\npublic external abstract class HTMLSlotElement : HTMLElement {\n  open var name: String\n  fun
assignedNodes(options: AssignedNodesOptions = definedExternally): Array<Node>\n\n  companion object {\n
val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val
CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE:
Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n
val COMMENT_NODE: Short\n    val DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE:
Short\n    val DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n

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    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n } \n} \n\npublic external interface
AssignedNodesOptions { \n    var flatten: Boolean? /* = false */ \n    get() = definedExternally \n    set(value) =
definedExternally \n} \n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER") \n\n@kotlin.internal.InlineOnly \n\npublic inline fun AssignedNodesOptions(flatten:
Boolean? = false): AssignedNodesOptions { \n    val o = js("{}") \n    o["flatten"] = flatten \n    return
o \n} \n\n/** \n * Exposes the JavaScript
[HTMLCanvasElement](https://developer.mozilla.org/en/docs/Web/API/HTMLCanvasElement)
to Kotlin \n * \n\npublic external abstract class HTMLCanvasElement : HTMLElement, CanvasImageSource,
TexImageSource { \n    open var width: Int \n    open var height: Int \n    fun getContext(contextId: String, vararg
arguments: Any?): RenderingContext? \n    fun toDataURL(type: String = definedExternally, quality: Any? =
definedExternally): String \n    fun toBlob(_callback: (Blob?) -> Unit, type: String = definedExternally, quality:
Any? = definedExternally) \n    companion object { \n        val ELEMENT_NODE: Short \n        val
ATTRIBUTE_NODE: Short \n        val TEXT_NODE: Short \n        val CDATA_SECTION_NODE: Short \n        val
ENTITY_REFERENCE_NODE: Short \n        val ENTITY_NODE: Short \n        val
PROCESSING_INSTRUCTION_NODE: Short \n        val COMMENT_NODE: Short \n        val
DOCUMENT_NODE: Short \n        val DOCUMENT_TYPE_NODE: Short \n        val
DOCUMENT_FRAGMENT_NODE: Short \n        val NOTATION_NODE: Short \n        val
DOCUMENT_POSITION_DISCONNECTED:
Short \n        val DOCUMENT_POSITION_PRECEDING: Short \n        val
DOCUMENT_POSITION_FOLLOWING: Short \n        val DOCUMENT_POSITION_CONTAINS: Short \n
val DOCUMENT_POSITION_CONTAINED_BY: Short \n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short \n    } \n} \n\npublic external interface
CanvasRenderingContext2DSettings { \n    var alpha: Boolean? /* = true */ \n    get() = definedExternally \n
set(value) = definedExternally \n} \n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER") \n\n@kotlin.internal.InlineOnly \n\npublic inline fun
CanvasRenderingContext2DSettings(alpha: Boolean? = true): CanvasRenderingContext2DSettings { \n    val o =
js("{}") \n    o["alpha"] = alpha \n    return o \n} \n\n/** \n * Exposes the JavaScript
[CanvasRenderingContext2D](https://developer.mozilla.org/en/docs/Web/API/CanvasRenderingContext2D) to
Kotlin \n * \n\npublic external abstract class CanvasRenderingContext2D : CanvasState, CanvasTransform,
CanvasCompositing, CanvasImageSmoothing,
CanvasFillStrokeStyles, CanvasShadowStyles, CanvasFilters, CanvasRect, CanvasDrawPath, CanvasUserInterface,
CanvasText, CanvasDrawImage, CanvasHitRegion, CanvasImageData, CanvasPathDrawingStyles,
CanvasTextDrawingStyles, CanvasPath, RenderingContext { \n    open val canvas:
HTMLCanvasElement \n} \n\npublic external interface CanvasState { \n    fun save() \n    fun restore() \n} \n\npublic
external interface CanvasTransform { \n    fun scale(x: Double, y: Double) \n    fun rotate(angle: Double) \n    fun
translate(x: Double, y: Double) \n    fun transform(a: Double, b: Double, c: Double, d: Double, e: Double, f:
Double) \n    fun getTransform(): DOMMatrix \n    fun setTransform(a: Double, b: Double, c: Double, d: Double, e:
Double, f: Double) \n    fun setTransform(transform: dynamic = definedExternally) \n    fun
resetTransform() \n} \n\npublic external interface CanvasCompositing { \n    var globalAlpha: Double \n    var
globalCompositeOperation: String \n} \n\npublic external interface CanvasImageSmoothing
{ \n    var imageSmoothingEnabled: Boolean \n    var imageSmoothingQuality:
ImageSmoothingQuality \n} \n\npublic external interface CanvasFillStrokeStyles { \n    var strokeStyle: dynamic \n
get() = definedExternally \n    set(value) = definedExternally \n    var fillStyle: dynamic \n    get() =
definedExternally \n    set(value) = definedExternally \n    fun createLinearGradient(x0: Double, y0: Double, x1:
Double, y1: Double): CanvasGradient \n    fun createRadialGradient(x0: Double, y0: Double, r0: Double, x1:
Double, y1: Double, r1: Double): CanvasGradient \n    fun createPattern(image: CanvasImageSource, repetition:

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String): CanvasPattern?}\n\npublic external interface CanvasShadowStyles {\n    var shadowOffsetX: Double\n    var shadowOffsetY: Double\n    var shadowBlur: Double\n    var shadowColor: String\n}\n\npublic external interface CanvasFilters {\n    var filter: String\n}\n\npublic external interface CanvasRect {\n    fun clearRect(x: Double, y: Double, w: Double, h: Double)\n    fun fillRect(x: Double, y: Double, w: Double, h: Double)\n    fun strokeRect(x: Double, y: Double, w: Double, h: Double)\n}\n\npublic external interface CanvasDrawPath {\n    fun beginPath()\n    fun fill(fillRule: CanvasFillRule = definedExternally)\n    fun fill(path: Path2D, fillRule: CanvasFillRule = definedExternally)\n    fun stroke()\n    fun stroke(path: Path2D)\n    fun clip(fillRule: CanvasFillRule = definedExternally)\n    fun clip(path: Path2D, fillRule: CanvasFillRule = definedExternally)\n    fun resetClip()\n    fun isPointInPath(x: Double, y: Double, fillRule: CanvasFillRule = definedExternally): Boolean\n    fun isPointInPath(path: Path2D, x: Double, y: Double, fillRule: CanvasFillRule = definedExternally): Boolean\n    fun isPointInStroke(x: Double, y: Double): Boolean\n    fun isPointInStroke(path: Path2D, x: Double, y: Double): Boolean\n}\n\npublic external interface CanvasUserInterface {\n    fun drawFocusIfNeeded(element: Element)\n    fun drawFocusIfNeeded(path: Path2D, element: Element)\n    fun scrollPathIntoView()\n    fun scrollPathIntoView(path: Path2D)\n}\n\npublic external interface CanvasText {\n    fun fillText(text: String, x: Double, y: Double, maxWidth: Double = definedExternally)\n    fun strokeText(text: String, x: Double, y: Double, maxWidth: Double = definedExternally)\n    fun measureText(text: String): TextMetrics\n}\n\npublic external interface CanvasDrawImage {\n    fun drawImage(image: CanvasImageSource, dx: Double, dy: Double)\n    fun drawImage(image: CanvasImageSource, dx: Double, dy: Double, dw: Double, dh: Double)\n    fun drawImage(image: CanvasImageSource, sx: Double, sy: Double, sw: Double, sh: Double, dx: Double, dy: Double, dw: Double, dh: Double)\n}\n\npublic external interface CanvasHitRegion {\n    fun addHitRegion(options: HitRegionOptions = definedExternally)\n    fun removeHitRegion(id: String)\n    fun clearHitRegions()\n}\n\npublic external interface CanvasImageData {\n    fun createImageData(sw: Double, sh: Double): ImageData\n    fun createImageData(imagedata: ImageData): ImageData\n    fun getImageData(sx: Double, sy: Double, sw: Double, sh: Double): ImageData\n    fun putImageData(imagedata: ImageData, dx: Double, dy: Double)\n    fun putImageData(imagedata: ImageData, dx: Double, dy: Double, dirtyX: Double, dirtyY: Double, dirtyWidth: Double, dirtyHeight: Double)\n}\n\npublic external interface CanvasPathDrawingStyles {\n    var lineWidth: Double\n    var lineCap: CanvasLineCap\n    var lineJoin: CanvasLineJoin\n    var miterLimit: Double\n    var lineDashOffset: Double\n    fun setLineDash(segments: Array<Double>)\n    fun getLineDash(): Array<Double>\n}\n\npublic external interface CanvasTextDrawingStyles {\n    var font: String\n    var textAlign: CanvasTextAlign\n    var textBaseline: CanvasTextBaseline\n    var direction: CanvasDirection\n}\n\npublic external interface CanvasPath {\n    fun closePath()\n    fun moveTo(x: Double, y: Double)\n    fun lineTo(x: Double, y: Double)\n    fun quadraticCurveTo(cpx: Double, cpy: Double, x: Double, y: Double)\n    fun bezierCurveTo(cp1x: Double, cp1y: Double, cp2x: Double, cp2y: Double, x: Double, y: Double)\n    fun arcTo(x1: Double, y1: Double, x2: Double, y2: Double, radius: Double)\n    fun arcTo(x1: Double, y1: Double, x2: Double, y2: Double, radiusX: Double, radiusY: Double, rotation: Double)\n    fun rect(x: Double, y: Double, w: Double, h: Double)\n    fun arc(x: Double, y: Double, radius: Double, startAngle: Double, endAngle: Double, anticlockwise: Boolean = definedExternally)\n    fun ellipse(x: Double, y: Double, radiusX: Double, radiusY: Double, rotation: Double, startAngle: Double, endAngle: Double, anticlockwise: Boolean = definedExternally)\n}\n\n/**\n * Exposes the JavaScript [CanvasGradient](https://developer.mozilla.org/en/docs/Web/API/CanvasGradient) to Kotlin\n */\n\npublic external abstract class CanvasGradient {\n    fun addColorStop(offset: Double, color: String)\n}\n\n/**\n * Exposes the JavaScript [CanvasPattern](https://developer.mozilla.org/en/docs/Web/API/CanvasPattern) to Kotlin\n */\n\npublic external abstract class CanvasPattern {\n    fun setTransform(transform: dynamic = definedExternally)\n}\n\n/**\n * Exposes the JavaScript [TextMetrics](https://developer.mozilla.org/en/docs/Web/API/TextMetrics) to Kotlin\n */\n\npublic external abstract class TextMetrics {\n    open val width: Double\n    open val actualBoundingBoxLeft: Double\n    open val actualBoundingBoxRight: Double\n    open val fontBoundingBoxAscent: Double\n    open val

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fontBoundingBoxDescent: Double\n    open val actualBoundingBoxAscent: Double\n    open val
actualBoundingBoxDescent: Double\n    open val emHeightAscent: Double\n    open val emHeightDescent:
Double\n    open val hangingBaseline: Double\n    open val alphabeticBaseline: Double\n    open val
ideographicBaseline: Double\n}\n\npublic external interface HitRegionOptions {\n    var path: Path2D? /* = null
*/\n    get()
= definedExternally\n    set(value) = definedExternally\n    var fillRule: CanvasFillRule? /* =
CanvasFillRule.NONZERO */\n    get() = definedExternally\n    set(value) = definedExternally\n    var id:
String? /* = \"\" */\n    get() = definedExternally\n    set(value) = definedExternally\n    var parentID: String? /*
= null */\n    get() = definedExternally\n    set(value) = definedExternally\n    var cursor: String? /* = \"inherit\"
*/\n    get() = definedExternally\n    set(value) = definedExternally\n    var control: Element? /* = null */\n
get() = definedExternally\n    set(value) = definedExternally\n    var label: String? /* = null */\n    get() =
definedExternally\n    set(value) = definedExternally\n    var role: String? /* = null */\n    get() =
definedExternally\n    set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun HitRegionOptions(path:
Path2D? = null, fillRule: CanvasFillRule? = CanvasFillRule.NONZERO, id: String? = \"\", parentID: String? =
null, cursor: String? = \"inherit\", control: Element? = null, label: String? = null, role: String? = null):
HitRegionOptions {\n    val o = js(\"({})\")\n    o[\"path\"] = path\n    o[\"fillRule\"] = fillRule\n    o[\"id\"] = id\n
o[\"parentID\"] = parentID\n    o[\"cursor\"] = cursor\n    o[\"control\"] = control\n    o[\"label\"] = label\n
o[\"role\"] = role\n    return o\n}\n\n/**\n * Exposes the JavaScript
[ImageData](https://developer.mozilla.org/en/docs/Web/API/ImageData) to Kotlin\n */\npublic external open class
ImageData : ImageBitmapSource, TexImageSource {\n    constructor(sw: Int, sh: Int)\n    constructor(data:
Uint8ClampedArray, sw: Int, sh: Int = definedExternally)\n    open val width: Int\n    open val height: Int\n    open
val data: Uint8ClampedArray\n}\n\n/**\n * Exposes the JavaScript
[Path2D](https://developer.mozilla.org/en/docs/Web/API/Path2D)
to Kotlin\n */\npublic external open class Path2D() : CanvasPath {\n    constructor(path: Path2D)\n
constructor(paths: Array<Path2D>, fillRule: CanvasFillRule = definedExternally)\n    constructor(d: String)\n    fun
addPath(path: Path2D, transform: dynamic = definedExternally)\n    override fun closePath()\n    override fun
moveTo(x: Double, y: Double)\n    override fun lineTo(x: Double, y: Double)\n    override fun
quadraticCurveTo(cpx: Double, cpy: Double, x: Double, y: Double)\n    override fun bezierCurveTo(cp1x: Double,
cp1y: Double, cp2x: Double, cp2y: Double, x: Double, y: Double)\n    override fun arcTo(x1: Double, y1: Double,
x2: Double, y2: Double, radius: Double)\n    override fun arcTo(x1: Double, y1: Double, x2: Double, y2: Double,
radiusX: Double, radiusY: Double, rotation: Double)\n    override fun rect(x: Double, y: Double, w: Double, h:
Double)\n    override fun arc(x: Double, y: Double, radius: Double, startAngle: Double, endAngle: Double,
anticlockwise:
Boolean /* = definedExternally */) \n    override fun ellipse(x: Double, y: Double, radiusX: Double, radiusY:
Double, rotation: Double, startAngle: Double, endAngle: Double, anticlockwise: Boolean /* = definedExternally
*/)\n}\n\n/**\n * Exposes the JavaScript
[ImageBitmapRenderingContext](https://developer.mozilla.org/en/docs/Web/API/ImageBitmapRenderingContext)
to Kotlin\n */\npublic external abstract class ImageBitmapRenderingContext {\n    open val canvas:
HTMLCanvasElement\n    fun transferFromImageBitmap(bitmap: ImageBitmap?)\n}\n\npublic external interface
ImageBitmapRenderingContextSettings {\n    var alpha: Boolean? /* = true */\n    get() = definedExternally\n
set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun
ImageBitmapRenderingContextSettings(alpha: Boolean? = true): ImageBitmapRenderingContextSettings {\n    val o
= js(\"({})\")\n    o[\"alpha\"] = alpha\n    return o\n}\n\n/**\n * Exposes the JavaScript
[CustomElementRegistry](https://developer.mozilla.org/en/docs/Web/API/CustomElementRegistry) to Kotlin\n
*/\npublic external abstract class CustomElementRegistry {\n    fun define(name: String, constructor: () -> dynamic,

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options: ElementDefinitionOptions = definedExternally)\n fun get(name: String): Any?\n fun
whenDefined(name: String): Promise<Unit>\n}\n\npublic external interface ElementDefinitionOptions {\n var
extends: String?\n get() = definedExternally\n set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ElementDefinitionOptions(extends:
String? = undefined): ElementDefinitionOptions {\n val o = js(\"({})\")\n o[\"extends\"] = extends\n return
o\n}\n\npublic external interface ElementContentEditable {\n var contentEditable: String\n val
isContentEditable: Boolean\n}\n\n/**\n * Exposes the JavaScript
[DataTransfer](https://developer.mozilla.org/en/docs/Web/API/DataTransfer)
to Kotlin\n */\npublic external abstract class DataTransfer {\n open var dropEffect: String\n open var
effectAllowed: String\n open val items: DataTransferItemList\n open val types: Array<out String>\n open val
files: FileList\n fun setDragImage(image: Element, x: Int, y: Int)\n fun getData(format: String): String\n fun
setData(format: String, data: String)\n fun clearData(format: String = definedExternally)\n}\n\n/**\n * Exposes
the JavaScript [DataTransferItemList](https://developer.mozilla.org/en/docs/Web/API/DataTransferItemList) to
Kotlin\n */\npublic external abstract class DataTransferItemList {\n open val length: Int\n fun add(data: String,
type: String): DataTransferItem?\n fun add(data: File): DataTransferItem?\n fun remove(index: Int)\n fun
clear()\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun
DataTransferItemList.get(index:
Int): DataTransferItem? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript
[DataTransferItem](https://developer.mozilla.org/en/docs/Web/API/DataTransferItem) to Kotlin\n */\npublic
external abstract class DataTransferItem {\n open val kind: String\n open val type: String\n fun
getAsString(_callback: ((String) -> Unit)?)\n fun getAsFile(): File?\n}\n\n/**\n * Exposes the JavaScript
[DragEvent](https://developer.mozilla.org/en/docs/Web/API/TouchEvent) to Kotlin\n */\npublic external open class
DragEvent(type: String, eventInitDict: DragEventInit = definedExternally) : MouseEvent {\n open val
dataTransfer: DataTransfer?\n\n companion object {\n val NONE: Short\n val CAPTURING_PHASE:
Short\n val AT_TARGET: Short\n val BUBBLING_PHASE: Short\n }\n}\n\npublic external interface
DragEventInit : MouseEventInit {\n var dataTransfer: DataTransfer? /* = null */\n get() = definedExternally\n
set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun DragEventInit(dataTransfer:
DataTransfer? = null, screenX: Int? = 0, screenY: Int? = 0, clientX: Int? = 0, clientY: Int? = 0, button: Short? = 0,
buttons: Short? = 0, relatedTarget: EventTarget? = null, region: String? = null, ctrlKey: Boolean? = false, shiftKey:
Boolean? = false, altKey: Boolean? = false, metaKey: Boolean? = false, modifierAltGraph: Boolean? = false,
modifierCapsLock: Boolean? = false, modifierFn: Boolean? = false, modifierFnLock: Boolean? = false,
modifierHyper: Boolean? = false, modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? = false,
modifierSuper: Boolean? = false, modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false, view:
Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? =
false): DragEventInit {\n val o = js(\"({})\")\n o[\"dataTransfer\"]
= dataTransfer\n o[\"screenX\"] = screenX\n o[\"screenY\"] = screenY\n o[\"clientX\"] = clientX\n
o[\"clientY\"] = clientY\n o[\"button\"] = button\n o[\"buttons\"] = buttons\n o[\"relatedTarget\"] =
relatedTarget\n o[\"region\"] = region\n o[\"ctrlKey\"] = ctrlKey\n o[\"shiftKey\"] = shiftKey\n o[\"altKey\"]
= altKey\n o[\"metaKey\"] = metaKey\n o[\"modifierAltGraph\"] = modifierAltGraph\n
o[\"modifierCapsLock\"] = modifierCapsLock\n o[\"modifierFn\"] = modifierFn\n o[\"modifierFnLock\"] =
modifierFnLock\n o[\"modifierHyper\"] = modifierHyper\n o[\"modifierNumLock\"] = modifierNumLock\n
o[\"modifierScrollLock\"] = modifierScrollLock\n o[\"modifierSuper\"] = modifierSuper\n
o[\"modifierSymbol\"] = modifierSymbol\n o[\"modifierSymbolLock\"] = modifierSymbolLock\n o[\"view\"] =
view\n o[\"detail\"] = detail\n o[\"bubbles\"] = bubbles\n o[\"cancelable\"] = cancelable\n o[\"composed\"] =
composed\n return

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o\n}\n\n/**\n * Exposes the JavaScript [Window](https://developer.mozilla.org/en/docs/Web/API/Window) to
Kotlin\n *\npublic external abstract class Window : EventTarget, GlobalEventHandlers, WindowEventHandlers,
WindowOrWorkerGlobalScope, WindowSessionStorage, WindowLocalStorage, GlobalPerformance,
UnionMessagePortOrWindowProxy {\n  open val window: Window\n  open val self: Window\n  open val
document: Document\n  open var name: String\n  open val location: Location\n  open val history: History\n
open val customElements: CustomElementRegistry\n  open val locationbar: BarProp\n  open val menubar:
BarProp\n  open val personalbar: BarProp\n  open val scrollbars: BarProp\n  open val statusbar: BarProp\n
open val toolbar: BarProp\n  open var status: String\n  open val closed: Boolean\n  open val frames: Window\n
open val length: Int\n  open val top: Window\n  open var opener: Any?\n  open val parent: Window\n  open val
frameElement: Element?\n
  open val navigator: Navigator\n  open val applicationCache: ApplicationCache\n  open val external: External\n
open val screen: Screen\n  open val innerWidth: Int\n  open val innerHeight: Int\n  open val scrollX: Double\n
open val pageXOffset: Double\n  open val scrollY: Double\n  open val pageYOffset: Double\n  open val
screenX: Int\n  open val screenY: Int\n  open val outerWidth: Int\n  open val outerHeight: Int\n  open val
devicePixelRatio: Double\n  fun close()\n  fun stop()\n  fun focus()\n  fun blur()\n  fun open(url: String =
definedExternally, target: String = definedExternally, features: String = definedExternally): Window?\n  fun
alert()\n  fun alert(message: String)\n  fun confirm(message: String = definedExternally): Boolean\n  fun
prompt(message: String = definedExternally, default: String = definedExternally): String?\n  fun print()\n  fun
requestAnimationFrame(callback: (Double) -> Unit): Int\n  fun cancelAnimationFrame(handle:
  Int)\n  fun postMessage(message: Any?, targetOrigin: String, transfer: Array<dynamic> = definedExternally)\n
fun captureEvents()\n  fun releaseEvents()\n  fun matchMedia(query: String): MediaQueryList\n  fun moveTo(x:
Int, y: Int)\n  fun moveBy(x: Int, y: Int)\n  fun resizeTo(x: Int, y: Int)\n  fun resizeBy(x: Int, y: Int)\n  fun
scroll(options: ScrollToOptions = definedExternally)\n  fun scroll(x: Double, y: Double)\n  fun scrollTo(options:
ScrollToOptions = definedExternally)\n  fun scrollTo(x: Double, y: Double)\n  fun scrollBy(options:
ScrollToOptions = definedExternally)\n  fun scrollBy(x: Double, y: Double)\n  fun getComputedStyle(elt:
Element, pseudoElt: String? = definedExternally):
  CSSStyleDeclaration\n}\n\n@Suppress("\nINVISIBLE_REFERENCE",
\nINVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun Window.get(name: String):
dynamic = asDynamic()[name]\n\npublic external abstract class BarProp {\n  open val visible:
  Boolean\n}\n\n/**\n * Exposes the JavaScript [History](https://developer.mozilla.org/en/docs/Web/API/History) to
Kotlin\n *\npublic external abstract class History {\n  open val length: Int\n  open var scrollRestoration:
ScrollRestoration\n  open val state: Any?\n  fun go(delta: Int = definedExternally)\n  fun back()\n  fun
forward()\n  fun pushState(data: Any?, title: String, url: String? = definedExternally)\n  fun replaceState(data:
Any?, title: String, url: String? = definedExternally)\n}\n\n/**\n * Exposes the JavaScript
[Location](https://developer.mozilla.org/en/docs/Web/API/Location) to Kotlin\n *\npublic external abstract class
Location {\n  open var href: String\n  open val origin: String\n  open var protocol: String\n  open var host:
String\n  open var hostname: String\n  open var port: String\n  open var pathname: String\n  open var search:
String\n  open var hash: String\n  open val ancestorOrigins: Array<out String>\n  fun assign(url:
String)\n  fun replace(url: String)\n  fun reload()\n}\n\n/**\n * Exposes the JavaScript
[PopStateEvent](https://developer.mozilla.org/en/docs/Web/API/PopStateEvent) to Kotlin\n *\npublic external
open class PopStateEvent(type: String, eventInitDict: PopStateEventInit = definedExternally) : Event {\n  open val
state: Any?\n  companion object {\n    val NONE: Short\n    val CAPTURING_PHASE: Short\n    val
AT_TARGET: Short\n    val BUBBLING_PHASE: Short\n  }\n}\n\npublic external interface PopStateEventInit
: EventInit {\n  var state: Any? /* = null */\n  get() = definedExternally\n  set(value) =
definedExternally\n}\n\n@Suppress("\nINVISIBLE_REFERENCE",
\nINVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun PopStateEventInit(state: Any? = null,
bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): PopStateEventInit {\n  val o
= js("\n({})")\n  o["state"] = state\n  o["bubbles"] = bubbles\n

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    o["cancelable"] = cancelable\n    o["composed"] = composed\n    return o\n}\n\n/**\n * Exposes the JavaScript
[HashChangeEvent](https://developer.mozilla.org/en/docs/Web/API/HashChangeEvent) to Kotlin\n *\npublic
external open class HashChangeEvent(type: String, eventInitDict: HashChangeEventInit = definedExternally) :
Event {\n    open val oldURL: String\n    open val newURL: String\n\n    companion object {\n        val NONE:
Short\n        val CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n        val BUBBLING_PHASE:
Short\n    }\n}\n\npublic external interface HashChangeEventInit : EventInit {\n    var oldURL: String? /* = "" */\n    get() = definedExternally\n    set(value) = definedExternally\n    var newURL: String? /* = "" */\n    get() =
definedExternally\n    set(value) = definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun HashChangeEventInit(oldURL:
String?
= "", newURL: String? = "", bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? =
false): HashChangeEventInit {\n    val o = js("{}")\n    o["oldURL"] = oldURL\n    o["newURL"] =
newURL\n    o["bubbles"] = bubbles\n    o["cancelable"] = cancelable\n    o["composed"] = composed\n    return
o\n}\n\n/**\n * Exposes the JavaScript
[PageTransitionEvent](https://developer.mozilla.org/en/docs/Web/API/PageTransitionEvent) to Kotlin\n *\npublic
external open class PageTransitionEvent(type: String, eventInitDict: PageTransitionEventInit = definedExternally) :
Event {\n    open val persisted: Boolean\n\n    companion object {\n        val NONE: Short\n        val
CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n        val BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface PageTransitionEventInit : EventInit {\n    var persisted: Boolean? /* = false */\n    get() = definedExternally\n    set(value) = definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun PageTransitionEventInit(persisted:
Boolean? = false, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false):
PageTransitionEventInit {\n    val o = js("{}")\n    o["persisted"] = persisted\n    o["bubbles"] = bubbles\n
o["cancelable"] = cancelable\n    o["composed"] = composed\n    return o\n}\n\n/**\n * Exposes the JavaScript
[BeforeUnloadEvent](https://developer.mozilla.org/en/docs/Web/API/BeforeUnloadEvent) to Kotlin\n *\npublic
external open class BeforeUnloadEvent : Event {\n    var returnValue: String\n\n    companion object {\n        val
NONE: Short\n        val CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n        val
BUBBLING_PHASE: Short\n    }\n}\n\npublic external abstract class ApplicationCache : EventTarget {\n    open
val status: Short\n    open var onchecking: ((Event) -> dynamic)?\n    open var onerror: ((Event) -> dynamic)?\n
    open var onnoupdate: ((Event) -> dynamic)?\n    open var ondownloading: ((Event) -> dynamic)?\n    open var
onprogress: ((ProgressEvent) -> dynamic)?\n    open var onupdateready: ((Event) -> dynamic)?\n    open var
oncached: ((Event) -> dynamic)?\n    open var onobsolete: ((Event) -> dynamic)?\n    fun update()\n    fun abort()\n
fun swapCache()\n\n    companion object {\n        val UNCACHED: Short\n        val IDLE: Short\n        val
CHECKING: Short\n        val DOWNLOADING: Short\n        val UPDATEREADY: Short\n        val OBSOLETE:
Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[NavigatorOnLine](https://developer.mozilla.org/en/docs/Web/API/NavigatorOnLine) to Kotlin\n *\npublic
external interface NavigatorOnLine {\n    val onLine: Boolean\n}\n\n/**\n * Exposes the JavaScript
[ErrorEvent](https://developer.mozilla.org/en/docs/Web/API/ErrorEvent) to Kotlin\n *\npublic external open class
ErrorEvent(type: String, eventInitDict: ErrorEventInit = definedExternally)
: Event {\n    open val message: String\n    open val filename: String\n    open val lineno: Int\n    open val colno:
Int\n    open val error: Any?\n\n    companion object {\n        val NONE: Short\n        val CAPTURING_PHASE:
Short\n        val AT_TARGET: Short\n        val BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface
ErrorEventInit : EventInit {\n    var message: String? /* = "" */\n    get() = definedExternally\n    set(value) =
definedExternally\n    var filename: String? /* = "" */\n    get() = definedExternally\n    set(value) =
definedExternally\n    var lineno: Int? /* = 0 */\n    get() = definedExternally\n    set(value) =
definedExternally\n    var colno: Int? /* = 0 */\n    get() = definedExternally\n    set(value) =
definedExternally\n    var error: Any? /* = null */\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",

```



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\invisible_member\@kotlin.internal.InlineOnly\npublic
inline fun ErrorEventInit(message: String? = "", filename: String? = "", lineno: Int? = 0, colno: Int? = 0, error:
Any? = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): ErrorEventInit
{
    val o = js("{}")
    o["message"] = message
    o["filename"] = filename
    o["lineno"] = lineno
    o["colno"] = colno
    o["error"] = error
    o["bubbles"] = bubbles
    o["cancelable"] = cancelable
    o["composed"] = composed
    return o
}
Exposes the JavaScript
[PromiseRejectionEvent](https://developer.mozilla.org/en/docs/Web/API/PromiseRejectionEvent) to Kotlin
\npublic external open class PromiseRejectionEvent(type: String, eventInitDict: PromiseRejectionEventInit) :
Event {
    open val promise: Promise<Any?>
    open val reason: Any?
    companion object {
        val NONE: Short
        val CAPTURING_PHASE: Short
        val AT_TARGET: Short
        val BUBBLING_PHASE: Short
    }
}
\npublic external interface PromiseRejectionEventInit : EventInit {
    var promise: Promise<Any?>
    var reason: Any?
    get() = definedExternally
    set(value) = definedExternally
}
\n@Suppress("invisible_reference",
invisible_member)@kotlin.internal.InlineOnly\npublic inline fun PromiseRejectionEventInit(promise: Promise<Any?>, reason: Any? = undefined, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): PromiseRejectionEventInit {
    val o = js("{}")
    o["promise"] = promise
    o["reason"] = reason
    o["bubbles"] = bubbles
    o["cancelable"] = cancelable
    o["composed"] = composed
    return o
}
Exposes the JavaScript
[GlobalEventHandlers](https://developer.mozilla.org/en/docs/Web/API/GlobalEventHandlers) to Kotlin
\npublic external interface GlobalEventHandlers {
    var onabort: ((Event) -> dynamic)?
    get() = definedExternally
    set(value) = definedExternally
    var onblur: ((FocusEvent) -> dynamic)?
    get() = definedExternally
    set(value) = definedExternally
    var oncancel: ((Event) -> dynamic)?
    get() = definedExternally
    set(value) = definedExternally
    var oncanplay: ((Event) -> dynamic)?
    get() = definedExternally
    set(value) = definedExternally
    var oncanplaythrough: ((Event) -> dynamic)?
    get() = definedExternally
    set(value) = definedExternally
    var onchange: ((Event) -> dynamic)?
    get() = definedExternally
    set(value) = definedExternally
    var onclick: ((MouseEvent) -> dynamic)?
    get() = definedExternally
    set(value) = definedExternally
    var onclose: ((Event) -> dynamic)?
    get() = definedExternally
    set(value) = definedExternally
    var oncontextmenu: ((MouseEvent) -> dynamic)?
    get() = definedExternally
    set(value) = definedExternally
    var oncuechange: ((Event) -> dynamic)?
    get() = definedExternally
    set(value) = definedExternally
    var ondblclick: ((MouseEvent) -> dynamic)?
    get() = definedExternally
    set(value) = definedExternally
    var ondrag: ((DragEvent) -> dynamic)?
    get() = definedExternally
    set(value) = definedExternally
    var ondragend: ((DragEvent) -> dynamic)?
    get() = definedExternally
    set(value) = definedExternally
    var ondragenter: ((DragEvent) -> dynamic)?
    get() = definedExternally
    set(value) = definedExternally
    var ondragexit: ((DragEvent) -> dynamic)?
    get() = definedExternally
    set(value) = definedExternally
    var ondragleave: ((DragEvent) -> dynamic)?
    get() = definedExternally
    set(value) = definedExternally
    var ondragover: ((DragEvent) -> dynamic)?
    get() = definedExternally
    set(value) = definedExternally
    var ondragstart: ((DragEvent) -> dynamic)?
    get() = definedExternally
    set(value) = definedExternally
    var ondrop: ((DragEvent) -> dynamic)?
    get() = definedExternally
    set(value) = definedExternally
    var ondurationchange: ((Event) -> dynamic)?
    get() = definedExternally
    set(value) = definedExternally
    var onemptied: ((Event) -> dynamic)?
    get() = definedExternally
    set(value) = definedExternally
    var onended: ((Event) -> dynamic)?
    get() = definedExternally
    set(value) = definedExternally
    var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?
    get() = definedExternally
    set(value) = definedExternally
    var onfocus: ((FocusEvent) -> dynamic)?
    get() = definedExternally
    set(value) = definedExternally
    var oninput: ((InputEvent) -> dynamic)?
    get() = definedExternally
    set(value) = definedExternally
    var oninvalid: ((Event) ->

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dynamic)?\n    get() = definedExternally\n
    set(value) = definedExternally\n    var onkeydown: ((KeyboardEvent) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var onkeypress: ((KeyboardEvent) -> dynamic)?\n
get() = definedExternally\n    set(value) = definedExternally\n    var onkeyup: ((KeyboardEvent) -> dynamic)?\n
get() = definedExternally\n    set(value) = definedExternally\n    var onload: ((Event) -> dynamic)?\n    get()
= definedExternally\n    set(value) = definedExternally\n    var onloadeddata: ((Event) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var onloadedmetadata: ((Event) -> dynamic)?\n
get() = definedExternally\n    set(value) = definedExternally\n    var onloadend: ((Event) -> dynamic)?\n    get()
= definedExternally\n    set(value) = definedExternally\n    var onloadstart: ((ProgressEvent) -> dynamic)?\n
get() = definedExternally\n    set(value)
= definedExternally\n    var onmousedown: ((MouseEvent) -> dynamic)?\n    get() = definedExternally\n
set(value) = definedExternally\n    var onmouseenter: ((MouseEvent) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var onmouseleave: ((MouseEvent) -> dynamic)?\n
get() = definedExternally\n    set(value) = definedExternally\n    var onmousemove: ((MouseEvent) ->
dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n    var onmouseout:
((MouseEvent) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n    var
onmouseover: ((MouseEvent) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n
var onmouseup: ((MouseEvent) -> dynamic)?\n    get() = definedExternally\n    set(value) =
definedExternally\n    var onwheel: ((WheelEvent) -> dynamic)?\n    get() = definedExternally\n    set(value) =
definedExternally\n
    var onpause: ((Event) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n    var
onplay: ((Event) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n    var
onplaying: ((Event) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n    var
onprogress: ((ProgressEvent) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n
var onratechange: ((Event) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n
var onreset: ((Event) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n    var
onresize: ((Event) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n    var
onscroll: ((Event) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n    var
onseeked: ((Event) -> dynamic)?\n    get()
= definedExternally\n    set(value) = definedExternally\n    var onseeking: ((Event) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var onselect: ((Event) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var onshow: ((Event) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var onstalled: ((Event) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var onsubmit: ((Event) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var onsuspend: ((Event) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var ontimeupdate: ((Event) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var ontoggle: ((Event) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n
    var onvolumechange: ((Event) -> dynamic)?\n    get() = definedExternally\n    set(value) =
definedExternally\n    var onwaiting: ((Event) -> dynamic)?\n    get() = definedExternally\n    set(value) =
definedExternally\n    var ongotpointercapture: ((PointerEvent) -> dynamic)?\n    get() = definedExternally\n
set(value) = definedExternally\n    var onlostpointercapture: ((PointerEvent) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var onpointerdown: ((PointerEvent) -> dynamic)?\n
get() = definedExternally\n    set(value) = definedExternally\n    var onpointermove: ((PointerEvent) ->
dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n    var onpointerup:
((PointerEvent) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n    var
onpointercancel: ((PointerEvent) -> dynamic)?\n    get() = definedExternally\n    set(value) =
definedExternally\n

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var onpointerover: ((PointerEvent) -> dynamic)?\n    get() = definedExternally\n    set(value) =
definedExternally\n var onpointerout: ((PointerEvent) -> dynamic)?\n    get() = definedExternally\n
set(value) = definedExternally\n var onpointerenter: ((PointerEvent) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n var onpointerleave: ((PointerEvent) -> dynamic)?\n
get() = definedExternally\n    set(value) = definedExternally\n\n\n**\n * Exposes the JavaScript
[WindowEventHandlers](https://developer.mozilla.org/en/docs/Web/API/WindowEventHandlers) to Kotlin\n
*\npublic external interface WindowEventHandlers {\n var onafterprint: ((Event) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n var onbeforeprint: ((Event) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n var onbeforeunload: ((BeforeUnloadEvent)
-> String?)?\n    get() = definedExternally\n    set(value) = definedExternally\n var onhashchange:
((HashChangeEvent) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n var
onlanguagechange: ((Event) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n
var onmessage: ((MessageEvent) -> dynamic)?\n    get() = definedExternally\n    set(value) =
definedExternally\n var onoffline: ((Event) -> dynamic)?\n    get() = definedExternally\n    set(value) =
definedExternally\n var ononline: ((Event) -> dynamic)?\n    get() = definedExternally\n    set(value) =
definedExternally\n var onpagehide: ((PageTransitionEvent) -> dynamic)?\n    get() = definedExternally\n
set(value) = definedExternally\n var onpageshow: ((PageTransitionEvent) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n var onpopstate: ((PopStateEvent)
-> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n var onrejectionhandled:
((Event) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n var onstorage:
((StorageEvent) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n var
onunhandledrejection: ((PromiseRejectionEvent) -> dynamic)?\n    get() = definedExternally\n    set(value) =
definedExternally\n var onunload: ((Event) -> dynamic)?\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\npublic external interface DocumentAndElementEventHandlers {\n var oncopy:
((ClipboardEvent) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n var oncut:
((ClipboardEvent) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n var
onpaste: ((ClipboardEvent) -> dynamic)?\n    get() = definedExternally\n
    set(value) = definedExternally\n}\n\n**\n * Exposes the JavaScript
[WindowOrWorkerGlobalScope](https://developer.mozilla.org/en/docs/Web/API/WindowOrWorkerGlobalScope)
to Kotlin\n *\npublic external interface WindowOrWorkerGlobalScope {\n val origin: String\n val caches:
CacheStorage\n fun btoa(data: String): String\n fun atob(data: String): String\n fun setTimeout(handler:
dynamic, timeout: Int = definedExternally, vararg arguments: Any?): Int\n fun clearTimeout(handle: Int =
definedExternally)\n fun setInterval(handler: dynamic, timeout: Int = definedExternally, vararg arguments: Any?):
Int\n fun clearInterval(handle: Int = definedExternally)\n fun createImageBitmap(image: ImageBitmapSource,
options: ImageBitmapOptions = definedExternally): Promise<ImageBitmap>\n fun createImageBitmap(image:
ImageBitmapSource, sx: Int, sy: Int, sw: Int, sh: Int, options: ImageBitmapOptions = definedExternally):
Promise<ImageBitmap>\n fun fetch(input: dynamic,
    init: RequestInit = definedExternally): Promise<Response>\n}\n\n**\n * Exposes the JavaScript
[Navigator](https://developer.mozilla.org/en/docs/Web/API/Navigator) to Kotlin\n *\npublic external abstract class
Navigator : NavigatorID, NavigatorLanguage, NavigatorOnLine, NavigatorContentUtils, NavigatorCookies,
NavigatorPlugins, NavigatorConcurrentHardware {\n open val clipboard: Clipboard\n open val mediaDevices:
MediaDevices\n open val maxTouchPoints: Int\n open val serviceWorker: ServiceWorkerContainer\n fun
requestMediaKeySystemAccess(keySystem: String, supportedConfigurations:
Array<MediaKeySystemConfiguration>): Promise<MediaKeySystemAccess>\n fun getUserMedia(constraints:
MediaStreamConstraints, successCallback: (MediaStream) -> Unit, errorCallback: (dynamic) -> Unit)\n fun
vibrate(pattern: dynamic): Boolean\n}\n\n**\n * Exposes the JavaScript
[NavigatorID](https://developer.mozilla.org/en/docs/Web/API/NavigatorID) to Kotlin\n *\npublic external interface

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NavigatorID {\n  val appCodeName: String\n  val appName: String\n  val appVersion: String\n  val platform:
String\n  val product: String\n  val productSub: String\n  val userAgent: String\n  val vendor: String\n  val
vendorSub: String\n  val oscpu: String\n  fun taintEnabled(): Boolean\n}\n\n/**\n * Exposes the JavaScript
[NavigatorLanguage](https://developer.mozilla.org/en/docs/Web/API/NavigatorLanguage) to Kotlin\n */\npublic
external interface NavigatorLanguage {\n  val language: String\n  val languages: Array<out String>\n}\n\npublic
external interface NavigatorContentUtils {\n  fun registerProtocolHandler(scheme: String, url: String, title:
String)\n  fun registerContentHandler(mimeType: String, url: String, title: String)\n  fun
isProtocolHandlerRegistered(scheme: String, url: String): String\n  fun isContentHandlerRegistered(mimeType:
String, url: String): String\n  fun unregisterProtocolHandler(scheme: String, url: String)\n  fun
unregisterContentHandler(mimeType:
String, url: String)\n}\n\npublic external interface NavigatorCookies {\n  val cookieEnabled: Boolean\n}\n\n/**\n
* Exposes the JavaScript [NavigatorPlugins](https://developer.mozilla.org/en/docs/Web/API/NavigatorPlugins) to
Kotlin\n */\npublic external interface NavigatorPlugins {\n  val plugins: PluginArray\n  val mimeTypes:
MimeTypeArray\n  fun javaEnabled(): Boolean\n}\n\n/**\n * Exposes the JavaScript
[PluginArray](https://developer.mozilla.org/en/docs/Web/API/PluginArray) to Kotlin\n */\npublic external abstract
class PluginArray : ItemArrayLike<Plugin> {\n  fun refresh(reload: Boolean = definedExternally)\n  override fun
item(index: Int): Plugin?\n  fun namedItem(name: String):
Plugin?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun PluginArray.get(index: Int):
Plugin? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic
inline operator fun PluginArray.get(name: String): Plugin? = asDynamic()[name]\n\n/**\n * Exposes the JavaScript
[MimeTypeArray](https://developer.mozilla.org/en/docs/Web/API/MimeTypeArray) to Kotlin\n */\npublic external
abstract class MimeTypeArray : ItemArrayLike<MimeType> {\n  override fun item(index: Int): MimeType?\n
fun namedItem(name: String): MimeType?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun MimeTypeArray.get(index:
Int): MimeType? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun MimeTypeArray.get(name:
String): MimeType? = asDynamic()[name]\n\n/**\n * Exposes the JavaScript
[Plugin](https://developer.mozilla.org/en/docs/Web/API/Plugin) to Kotlin\n */\npublic external abstract class Plugin
: ItemArrayLike<MimeType> {\n  open val name: String\n  open val description: String\n  open
val filename: String\n  override fun item(index: Int): MimeType?\n  fun namedItem(name: String):
MimeType?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Plugin.get(index: Int):
MimeType? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Plugin.get(name: String):
MimeType? = asDynamic()[name]\n\n/**\n * Exposes the JavaScript
[MimeType](https://developer.mozilla.org/en/docs/Web/API/MimeType) to Kotlin\n */\npublic external abstract
class MimeType {\n  open val type: String\n  open val description: String\n  open val suffixes: String\n  open
val enabledPlugin: Plugin\n}\n\n/**\n * Exposes the JavaScript
[ImageBitmap](https://developer.mozilla.org/en/docs/Web/API/ImageBitmap) to Kotlin\n */\npublic external
abstract class ImageBitmap : CanvasImageSource, TexImageSource {\n  open val width: Int\n  open val height:
Int\n  fun close()\n}\n\npublic external interface ImageBitmapOptions {\n  var imageOrientation:
ImageOrientation? /* = ImageOrientation.NONE */\n  get() = definedExternally\n  set(value) =
definedExternally\n  var premultiplyAlpha: PremultiplyAlpha? /* = PremultiplyAlpha.DEFAULT */\n  get() =
definedExternally\n  set(value) = definedExternally\n  var colorSpaceConversion: ColorSpaceConversion? /* =
ColorSpaceConversion.DEFAULT */\n  get() = definedExternally\n  set(value) = definedExternally\n  var
resizeWidth: Int?\n  get() = definedExternally\n  set(value) = definedExternally\n  var resizeHeight: Int?\n
}

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definedExternally, reason: String = definedExternally)\n fun send(data: String)\n fun send(data: Blob)\n fun
send(data: ArrayBuffer)\n fun send(data: ArrayBufferView)\n\n companion object {\n val CONNECTING:
Short\n val OPEN: Short\n val CLOSING: Short\n val CLOSED: Short\n }\n}\n\n/**\n * Exposes the
JavaScript [CloseEvent](https://developer.mozilla.org/en/docs/Web/API/CloseEvent) to Kotlin\n *\npublic external
open class CloseEvent(type: String, eventInitDict: CloseEventInit = definedExternally)
: Event {\n open val wasClean: Boolean\n open val code: Short\n open val reason: String\n\n companion
object {\n val NONE: Short\n val CAPTURING_PHASE: Short\n val AT_TARGET: Short\n val
BUBBLING_PHASE: Short\n }\n}\n\npublic external interface CloseEventInit : EventInit {\n var wasClean:
Boolean? /* = false */\n get() = definedExternally\n set(value) = definedExternally\n var code: Short? /*
= 0 */\n get() = definedExternally\n set(value) = definedExternally\n var reason: String? /* = "" */\n
get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun CloseEventInit(wasClean: Boolean? =
false, code: Short? = 0, reason: String? = "", bubbles: Boolean? = false, cancelable: Boolean? = false, composed:
Boolean? = false): CloseEventInit {\n val o = js("{}")\n o["wasClean"]
= wasClean\n o["code"] = code\n o["reason"] = reason\n o["bubbles"] = bubbles\n o["cancelable"] =
cancelable\n o["composed"] = composed\n return o\n}\n\n/**\n * Exposes the JavaScript
[MessageChannel](https://developer.mozilla.org/en/docs/Web/API/MessageChannel) to Kotlin\n *\npublic external
open class MessageChannel {\n open val port1: MessagePort\n open val port2: MessagePort\n}\n\n/**\n *
Exposes the JavaScript [MessagePort](https://developer.mozilla.org/en/docs/Web/API/MessagePort) to Kotlin\n
*\npublic external abstract class MessagePort : EventTarget, UnionMessagePortOrWindowProxy,
UnionMessagePortOrServiceWorker, UnionClientOrMessagePortOrServiceWorker {\n open var onmessage:
((MessageEvent) -> dynamic)?\n fun postMessage(message: Any?, transfer: Array<dynamic> =
definedExternally)\n fun start()\n fun close()\n}\n\n/**\n * Exposes the JavaScript
[BroadcastChannel](https://developer.mozilla.org/en/docs/Web/API/BroadcastChannel)
to Kotlin\n *\npublic external open class BroadcastChannel(name: String) : EventTarget {\n open val name:
String\n var onmessage: ((MessageEvent) -> dynamic)?\n fun postMessage(message: Any?)\n fun
close()\n}\n\n/**\n * Exposes the JavaScript
[WorkerGlobalScope](https://developer.mozilla.org/en/docs/Web/API/WorkerGlobalScope) to Kotlin\n *\npublic
external abstract class WorkerGlobalScope : EventTarget, WindowOrWorkerGlobalScope, GlobalPerformance {\n
open val self: WorkerGlobalScope\n open val location: WorkerLocation\n open val navigator:
WorkerNavigator\n open var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\n open var
onlanguagechange: ((Event) -> dynamic)?\n open var onoffline: ((Event) -> dynamic)?\n open var ononline:
((Event) -> dynamic)?\n open var onrejectionhandled: ((Event) -> dynamic)?\n open var onunhandledrejection:
((PromiseRejectionEvent) -> dynamic)?\n fun importScripts(vararg urls: String)\n}\n\n/**\n * Exposes
the JavaScript
[DedicatedWorkerGlobalScope](https://developer.mozilla.org/en/docs/Web/API/DedicatedWorkerGlobalScope) to
Kotlin\n *\npublic external abstract class DedicatedWorkerGlobalScope : WorkerGlobalScope {\n open var
onmessage: ((MessageEvent) -> dynamic)?\n fun postMessage(message: Any?, transfer: Array<dynamic> =
definedExternally)\n fun close()\n}\n\n/**\n * Exposes the JavaScript
[SharedWorkerGlobalScope](https://developer.mozilla.org/en/docs/Web/API/SharedWorkerGlobalScope) to
Kotlin\n *\npublic external abstract class SharedWorkerGlobalScope : WorkerGlobalScope {\n open val name:
String\n open val applicationCache: ApplicationCache\n open var onconnect: ((Event) -> dynamic)?\n fun
close()\n}\n\n/**\n * Exposes the JavaScript
[AbstractWorker](https://developer.mozilla.org/en/docs/Web/API/AbstractWorker) to Kotlin\n *\npublic external
interface AbstractWorker {\n var onerror: ((Event) -> dynamic)?\n get() = definedExternally\n set(value)
= definedExternally\n}\n\n/**\n * Exposes the JavaScript
[Worker](https://developer.mozilla.org/en/docs/Web/API/Worker) to Kotlin\n *\npublic external open class
Worker(scriptURL: String, options: WorkerOptions = definedExternally) : EventTarget, AbstractWorker {\n var

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onmessage: ((MessageEvent) -> dynamic)?\n  override var onerror: ((Event) -> dynamic)?\n  fun terminate()\n  fun postMessage(message: Any?, transfer: Array<dynamic> = definedExternally)\n}\n\npublic external interface
WorkerOptions {\n  var type: WorkerType? /* = WorkerType.CLASSIC */\n  get() = definedExternally\n  set(value) = definedExternally\n  var credentials: RequestCredentials? /* = RequestCredentials.OMIT */\n  get() = definedExternally\n  set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun WorkerOptions(type: WorkerType? =
WorkerType.CLASSIC, credentials: RequestCredentials?
= RequestCredentials.OMIT): WorkerOptions {\n  val o = js(\"({})\")\n  o[\"type\"] = type\n  o[\"credentials\"]
= credentials\n  return o\n}\n\n/**\n * Exposes the JavaScript
[SharedWorker](https://developer.mozilla.org/en/docs/Web/API/SharedWorker) to Kotlin\n */\npublic external open
class SharedWorker(scriptURL: String, name: String = definedExternally, options: WorkerOptions =
definedExternally) : EventTarget, AbstractWorker {\n  open val port: MessagePort\n  override var onerror:
((Event) -> dynamic)?\n}\n\n/**\n * Exposes the JavaScript
[NavigatorConcurrentHardware](https://developer.mozilla.org/en/docs/Web/API/NavigatorConcurrentHardware) to
Kotlin\n */\npublic external interface NavigatorConcurrentHardware {\n  val hardwareConcurrency:
Number\n}\n\n/**\n * Exposes the JavaScript
[WorkerNavigator](https://developer.mozilla.org/en/docs/Web/API/WorkerNavigator) to Kotlin\n */\npublic
external abstract class WorkerNavigator : NavigatorID, NavigatorLanguage, NavigatorOnLine,
NavigatorConcurrentHardware {\n  open val serviceWorker: ServiceWorkerContainer\n}\n\n/**\n * Exposes the
JavaScript [WorkerLocation](https://developer.mozilla.org/en/docs/Web/API/WorkerLocation) to Kotlin\n */\n
public external abstract class WorkerLocation {\n  open val href: String\n  open val origin: String\n  open val
protocol: String\n  open val host: String\n  open val hostname: String\n  open val port: String\n  open val
pathname: String\n  open val search: String\n  open val hash: String\n}\n\n/**\n * Exposes the JavaScript
[Storage](https://developer.mozilla.org/en/docs/Web/API/Storage) to Kotlin\n */\npublic external abstract class
Storage {\n  open val length: Int\n  fun key(index: Int): String?\n  fun removeItem(key: String)\n  fun clear()\n
fun getItem(key: String): String?\n  fun setItem(key: String, value:
String)\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun
Storage.get(key: String): String? = asDynamic()[key]\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Storage.set(key: String, value:
String) { asDynamic()[key] = value }\n\n/**\n * Exposes the JavaScript
[WindowSessionStorage](https://developer.mozilla.org/en/docs/Web/API/WindowSessionStorage) to Kotlin\n */\n
public external interface WindowSessionStorage {\n  val sessionStorage: Storage\n}\n\n/**\n * Exposes the
JavaScript [WindowLocalStorage](https://developer.mozilla.org/en/docs/Web/API/WindowLocalStorage) to
Kotlin\n */\npublic external interface WindowLocalStorage {\n  val localStorage: Storage\n}\n\n/**\n * Exposes
the JavaScript [StorageEvent](https://developer.mozilla.org/en/docs/Web/API/StorageEvent) to Kotlin\n */\n
public external open class StorageEvent(type: String, eventInitDict: StorageEventInit = definedExternally) : Event {\n
  open val key: String?\n  open val oldValue: String?\n  open val newValue:
String?\n  open val url: String\n  open val storageArea: Storage?\n\n  companion object {\n    val NONE:
Short\n    val CAPTURING_PHASE: Short\n    val AT_TARGET: Short\n    val BUBBLING_PHASE:
Short\n  }\n}\n\npublic external interface StorageEventInit : EventInit {\n  var key: String? /* = null */\n  get()
= definedExternally\n  set(value) = definedExternally\n  var oldValue: String? /* = null */\n  get() =
definedExternally\n  set(value) = definedExternally\n  var newValue: String? /* = null */\n  get() =
definedExternally\n  set(value) = definedExternally\n  var url: String? /* = \"\" */\n  get() =
definedExternally\n  set(value) = definedExternally\n  var storageArea: Storage? /* = null */\n  get() =
definedExternally\n  set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun StorageEventInit(key:

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var marginWidth: String\n\n companion object {\n    val ELEMENT_NODE: Short\n    val
ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val
ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n    val
PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE:
Short\n    val DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n } }\n\npublic external abstract class
HTMLDirectoryElement : HTMLElement {\n    open var compact: Boolean\n\n    companion object {\n    val
ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val
CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE:
Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED:
Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n    val
DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n } }\n\n/**\n * Exposes the JavaScript
[HTMLFontElement](https://developer.mozilla.org/en/docs/Web/API/HTMLFontElement) to Kotlin\n */\n\npublic
external abstract class HTMLFontElement : HTMLElement {\n    open var color: String\n    open var face: String\n
open var size: String\n\n    companion object {\n    val ELEMENT_NODE: Short\n    val
ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val
ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n    val
PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n
    val NOTATION_NODE: Short\n    val DOCUMENT_POSITION_DISCONNECTED: Short\n    val
DOCUMENT_POSITION_PRECEDING: Short\n    val DOCUMENT_POSITION_FOLLOWING: Short\n
val DOCUMENT_POSITION_CONTAINS: Short\n    val DOCUMENT_POSITION_CONTAINED_BY:
Short\n    val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n } }\n\npublic external
interface External {\n    fun AddSearchProvider()\n    fun IsSearchProviderInstalled()\n}\n\npublic external interface
EventInit {\n    var bubbles: Boolean? /* = false */\n    get() = definedExternally\n    set(value) =
definedExternally\n    var cancelable: Boolean? /* = false */\n    get() = definedExternally\n    set(value) =
definedExternally\n    var composed: Boolean? /* = false */\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun EventInit(bubbles: Boolean? = false,
cancelable: Boolean? = false, composed: Boolean? = false): EventInit {\n    val o = js(\"({})\")\n    o[\"bubbles\"] =
bubbles\n    o[\"cancelable\"] = cancelable\n    o[\"composed\"] = composed\n    return o\n}\n\n/**\n * Exposes the
JavaScript [CustomEvent](https://developer.mozilla.org/en/docs/Web/API/CustomEvent) to Kotlin\n */\n\npublic
external open class CustomEvent(type: String, eventInitDict: CustomEventInit = definedExternally) : Event {\n
    open val detail: Any?\n    fun initCustomEvent(type: String, bubbles: Boolean, cancelable: Boolean, detail:
Any?)\n\n    companion object {\n    val NONE: Short\n    val CAPTURING_PHASE: Short\n    val
AT_TARGET: Short\n    val BUBBLING_PHASE: Short\n } }\n\npublic external interface CustomEventInit :
EventInit {\n    var detail: Any? /* = null */\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",

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\ "INVISIBLE_MEMBER" \n @kotlin.internal.InlineOnly \n public
inline fun CustomEventInit(detail: Any? = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed:
Boolean? = false): CustomEventInit { \n val o = js("{}") \n o["detail"] = detail \n o["bubbles"] = bubbles \n
o["cancelable"] = cancelable \n o["composed"] = composed \n return o \n } \n \n public external interface
EventListenerOptions { \n var capture: Boolean? /* = false */ \n get() = definedExternally \n set(value) =
definedExternally \n } \n \n @Suppress("INVISIBLE_REFERENCE"),
\ "INVISIBLE_MEMBER" \n @kotlin.internal.InlineOnly \n public inline fun EventListenerOptions(capture:
Boolean? = false): EventListenerOptions { \n val o = js("{}") \n o["capture"] = capture \n return
o \n } \n \n public external interface AddEventListenerOptions : EventListenerOptions { \n var passive: Boolean? /* =
false */ \n get() = definedExternally \n set(value) = definedExternally \n var once: Boolean? /* = false */ \n
get() = definedExternally \n
set(value) = definedExternally \n } \n \n @Suppress("INVISIBLE_REFERENCE"),
\ "INVISIBLE_MEMBER" \n @kotlin.internal.InlineOnly \n public inline fun AddEventListenerOptions(passive:
Boolean? = false, once: Boolean? = false, capture: Boolean? = false): AddEventListenerOptions { \n val o =
js("{}") \n o["passive"] = passive \n o["once"] = once \n o["capture"] = capture \n return o \n } \n \n public
external interface NonElementParentNode { \n fun getElementById(elementId: String): Element? \n } \n \n /** \n *
Exposes the JavaScript
[DocumentOrShadowRoot](https://developer.mozilla.org/en/docs/Web/API/DocumentOrShadowRoot) to Kotlin \n
*/ \n public external interface DocumentOrShadowRoot { \n val fullscreenElement: Element? \n get() =
definedExternally \n } \n \n /** \n * Exposes the JavaScript
[ParentNode](https://developer.mozilla.org/en/docs/Web/API/ParentNode) to Kotlin \n */ \n public external interface
ParentNode { \n val children: HTMLCollection \n val firstElementChild:
Element? \n get() = definedExternally \n val lastElementChild: Element? \n get() = definedExternally \n
val childElementCount: Int \n fun prepend(vararg nodes: dynamic) \n fun append(vararg nodes: dynamic) \n fun
querySelector(selectors: String): Element? \n fun querySelectorAll(selectors: String): NodeList \n } \n \n /** \n *
Exposes the JavaScript
[NonDocumentTypeChildNode](https://developer.mozilla.org/en/docs/Web/API/NonDocumentTypeChildNode) to
Kotlin \n */ \n public external interface NonDocumentTypeChildNode { \n val previousElementSibling: Element? \n
get() = definedExternally \n val nextElementSibling: Element? \n get() = definedExternally \n } \n \n /** \n *
Exposes the JavaScript [ChildNode](https://developer.mozilla.org/en/docs/Web/API/ChildNode) to Kotlin \n
*/ \n public external interface ChildNode { \n fun before(vararg nodes: dynamic) \n fun after(vararg nodes:
dynamic) \n fun replaceWith(vararg nodes: dynamic) \n fun remove() \n } \n \n /** \n *
Exposes the JavaScript [Slotable](https://developer.mozilla.org/en/docs/Web/API/Slotable) to Kotlin \n */ \n public
external interface Slotable { \n val assignedSlot: HTMLSlotElement? \n get() = definedExternally \n } \n \n /** \n *
Exposes the JavaScript [NodeList](https://developer.mozilla.org/en/docs/Web/API/NodeList) to Kotlin \n */ \n public
external abstract class NodeList : ItemArrayLike<Node> { \n override fun item(index: Int):
Node? \n } \n \n @Suppress("INVISIBLE_REFERENCE"),
\ "INVISIBLE_MEMBER" \n @kotlin.internal.InlineOnly \n public inline operator fun NodeList.get(index: Int):
Node? = asDynamic()[index] \n \n /** \n * Exposes the JavaScript
[HTMLCollection](https://developer.mozilla.org/en/docs/Web/API/HTMLCollection) to Kotlin \n */ \n public
external abstract class HTMLCollection : ItemArrayLike<Element>, UnionElementOrHTMLCollection { \n
override fun item(index: Int): Element? \n fun namedItem(name: String):
Element? \n } \n \n @Suppress("INVISIBLE_REFERENCE"),
\ "INVISIBLE_MEMBER" \n @kotlin.internal.InlineOnly \n public
inline operator fun HTMLCollection.get(index: Int): Element? =
asDynamic()[index] \n \n @Suppress("INVISIBLE_REFERENCE"),
\ "INVISIBLE_MEMBER" \n @kotlin.internal.InlineOnly \n public inline operator fun HTMLCollection.get(name:
String): Element? = asDynamic()[name] \n \n /** \n * Exposes the JavaScript

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[MutationObserver](https://developer.mozilla.org/en/docs/Web/API/MutationObserver) to Kotlin\n *\npublic
external open class MutationObserver(callback: (Array<MutationRecord>, MutationObserver) -> Unit) {\n fun
observe(target: Node, options: MutationObserverInit = definedExternally)\n fun disconnect()\n fun
takeRecords(): Array<MutationRecord>\n}\n\n/**\n * Exposes the JavaScript
[MutationObserverInit](https://developer.mozilla.org/en/docs/Web/API/MutationObserverInit) to Kotlin\n
*\npublic external interface MutationObserverInit {\n var childList: Boolean? /* = false */\n get() =
definedExternally\n set(value) = definedExternally\n
var attributes: Boolean?\n get() = definedExternally\n set(value) = definedExternally\n var
characterData: Boolean?\n get() = definedExternally\n set(value) = definedExternally\n var subtree:
Boolean? /* = false */\n get() = definedExternally\n set(value) = definedExternally\n var
attributeOldValue: Boolean?\n get() = definedExternally\n set(value) = definedExternally\n var
characterDataOldValue: Boolean?\n get() = definedExternally\n set(value) = definedExternally\n var
attributeFilter: Array<String>?\n get() = definedExternally\n set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MutationObserverInit(childList:
Boolean? = false, attributes: Boolean? = undefined, characterData: Boolean? = undefined, subtree: Boolean? = false,
attributeOldValue: Boolean? = undefined, characterDataOldValue:
Boolean? = undefined, attributeFilter: Array<String>? = undefined): MutationObserverInit {\n val o =
js(\"({})\")\n o[\"childList\"] = childList\n o[\"attributes\"] = attributes\n o[\"characterData\"] =
characterData\n o[\"subtree\"] = subtree\n o[\"attributeOldValue\"] = attributeOldValue\n
o[\"characterDataOldValue\"] = characterDataOldValue\n o[\"attributeFilter\"] = attributeFilter\n return
o\n}\n\n/**\n * Exposes the JavaScript
[MutationRecord](https://developer.mozilla.org/en/docs/Web/API/MutationRecord) to Kotlin\n *\npublic external
abstract class MutationRecord {\n open val type: String\n open val target: Node\n open val addedNodes:
NodeList\n open val removedNodes: NodeList\n open val previousSibling: Node?\n open val nextSibling:
Node?\n open val attributeName: String?\n open val attributeNamespace: String?\n open val oldValue:
String?\n}\n\n/**\n * Exposes the JavaScript [Node](https://developer.mozilla.org/en/docs/Web/API/Node)
to Kotlin\n *\npublic external abstract class Node : EventTarget {\n open val nodeType: Short\n open val
nodeName: String\n open val baseURI: String\n open val isConnected: Boolean\n open val ownerDocument:
Document?\n open val parentNode: Node?\n open val parentElement: Element?\n open val childNodes:
NodeList\n open val firstChild: Node?\n open val lastChild: Node?\n open val previousSibling: Node?\n
open val nextSibling: Node?\n open var nodeValue: String?\n open var textContent: String?\n fun
getRootNode(options: GetRootNodeOptions = definedExternally): Node\n fun hasChildNodes(): Boolean\n fun
normalize()\n fun cloneNode(deep: Boolean = definedExternally): Node\n fun isEqualNode(otherNode: Node?):
Boolean\n fun isSameNode(otherNode: Node?): Boolean\n fun compareDocumentPosition(other: Node): Short\n
fun contains(other: Node?): Boolean\n fun lookupPrefix(namespace: String?): String?\n fun
lookupNamespaceURI(prefix: String?): String?\n fun isDefaultNamespace(namespace: String?): Boolean\n fun
insertBefore(node: Node, child: Node?): Node\n fun appendChild(node: Node): Node\n fun replaceChild(node:
Node, child: Node): Node\n fun removeChild(child: Node): Node\n\n companion object {\n val
ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val
CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE:
Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val
DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val
DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val
DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n

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val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n } \n\npublic external interface
GetRootNodeOptions {\n var composed: Boolean? /* = false */\n get() = definedExternally\n set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun GetRootNodeOptions(composed:
Boolean? = false): GetRootNodeOptions {\n val o = js(\"({})\")\n o[\"composed\"] = composed\n return
o\n}\n\n/**\n * Exposes the JavaScript [Document](https://developer.mozilla.org/en/docs/Web/API/Document) to
Kotlin\n */\npublic external open class Document : Node, GlobalEventHandlers,
DocumentAndElementEventHandlers, NonElementParentNode, DocumentOrShadowRoot, ParentNode,
GeometryUtils {\n open val implementation: DOMImplementation\n open val URL: String\n open val
documentURI: String\n open val origin: String\n open val compatMode: String\n open val characterSet:
String\n open val
charset: String\n open val inputEncoding: String\n open val contentType: String\n open val doctype:
DocumentType?\n open val documentElement: Element?\n open val location: Location?\n var domain:
String\n open val referrer: String\n var cookie: String\n open val lastModified: String\n open val readyState:
DocumentReadyState\n var title: String\n var dir: String\n var body: HTMLElement?\n open val head:
HTMLHeadElement?\n open val images: HTMLCollection\n open val embeds: HTMLCollection\n open val
plugins: HTMLCollection\n open val links: HTMLCollection\n open val forms: HTMLCollection\n open val
scripts: HTMLCollection\n open val currentScript: HTMLScriptElement?\n open val defaultView:
Window?\n open val activeElement: Element?\n var designMode: String\n var onreadystatechange: ((Event) ->
dynamic)?\n var fgColor: String\n var linkColor: String\n var vlinkColor: String\n var alinkColor: String\n
var bgColor: String\n open val anchors: HTMLCollection\n open val applets: HTMLCollection\n open val
all: HTMLAllCollection\n open val scrollingElement: Element?\n open val styleSheets: StyleSheetList\n open
val rootElement: SVGSVGElement?\n open val fullscreenEnabled: Boolean\n open val fullscreen: Boolean\n
var onfullscreenchange: ((Event) -> dynamic)?\n var onfullscreenerror: ((Event) -> dynamic)?\n override var
onabort: ((Event) -> dynamic)?\n override var onblur: ((FocusEvent) -> dynamic)?\n override var oncancel:
((Event) -> dynamic)?\n override var oncanplay: ((Event) -> dynamic)?\n override var oncanplaythrough:
((Event) -> dynamic)?\n override var onchange: ((Event) -> dynamic)?\n override var onclick: ((MouseEvent) ->
dynamic)?\n override var onclose: ((Event) -> dynamic)?\n override var oncontextmenu: ((MouseEvent) ->
dynamic)?\n override var oncuechange: ((Event) -> dynamic)?\n override var ondblclick: ((MouseEvent)
-> dynamic)?\n override var ondrag: ((DragEvent) -> dynamic)?\n override var ondragend: ((DragEvent) ->
dynamic)?\n override var ondragenter: ((DragEvent) -> dynamic)?\n override var ondragexit: ((DragEvent) ->
dynamic)?\n override var ondragleave: ((DragEvent) -> dynamic)?\n override var ondragover: ((DragEvent) ->
dynamic)?\n override var ondragstart: ((DragEvent) -> dynamic)?\n override var ondrop: ((DragEvent) ->
dynamic)?\n override var ondurationchange: ((Event) -> dynamic)?\n override var onemptied: ((Event) ->
dynamic)?\n override var onended: ((Event) -> dynamic)?\n override var onerror: ((dynamic, String, Int, Int,
Any?) -> dynamic)?\n override var onfocus: ((FocusEvent) -> dynamic)?\n override var oninput: ((InputEvent) ->
dynamic)?\n override var oninvalid: ((Event) -> dynamic)?\n override var onkeydown: ((KeyboardEvent) ->
dynamic)?\n override var onkeypress: ((KeyboardEvent) -> dynamic)?\n override var onkeyup:
((KeyboardEvent) -> dynamic)?\n override var onload: ((Event) -> dynamic)?\n override var onloadeddata:
((Event) -> dynamic)?\n override var onloadedmetadata: ((Event) -> dynamic)?\n override var onloadend:
((Event) -> dynamic)?\n override var onloadstart: ((ProgressEvent) -> dynamic)?\n override var onmousedown:
((MouseEvent) -> dynamic)?\n override var onmouseenter: ((MouseEvent) -> dynamic)?\n override var
onmouseleave: ((MouseEvent) -> dynamic)?\n override var onmousemove: ((MouseEvent) -> dynamic)?\n
override var onmouseout: ((MouseEvent) -> dynamic)?\n override var onmouseover: ((MouseEvent) ->
dynamic)?\n override var onmouseup: ((MouseEvent) -> dynamic)?\n override var onwheel: ((WheelEvent) ->
dynamic)?\n override var onpause: ((Event) -> dynamic)?\n override var onplay: ((Event) -> dynamic)?\n
override var onplaying: ((Event) -> dynamic)?\n override var onprogress: ((ProgressEvent) -> dynamic)?\n
override var onratechange:

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((Event) -> dynamic)?\n  override var onreset: ((Event) -> dynamic)?\n  override var onresize: ((Event) ->
dynamic)?\n  override var onscroll: ((Event) -> dynamic)?\n  override var onseeked: ((Event) -> dynamic)?\n
override var onseeking: ((Event) -> dynamic)?\n  override var onselect: ((Event) -> dynamic)?\n  override var
onshow: ((Event) -> dynamic)?\n  override var onstalled: ((Event) -> dynamic)?\n  override var onsubmit:
((Event) -> dynamic)?\n  override var onsuspend: ((Event) -> dynamic)?\n  override var ontimeupdate: ((Event) -
> dynamic)?\n  override var ontoggle: ((Event) -> dynamic)?\n  override var onvolumechange: ((Event) ->
dynamic)?\n  override var onwaiting: ((Event) -> dynamic)?\n  override var ongotpointercapture: ((PointerEvent)
-> dynamic)?\n  override var onlostpointercapture: ((PointerEvent) -> dynamic)?\n  override var onpointerdown:
((PointerEvent) -> dynamic)?\n  override var onpointermove: ((PointerEvent) -> dynamic)?\n
  override var onpointerup: ((PointerEvent) -> dynamic)?\n  override var onpointercancel: ((PointerEvent) ->
dynamic)?\n  override var onpointerover: ((PointerEvent) -> dynamic)?\n  override var onpointerout:
((PointerEvent) -> dynamic)?\n  override var onpointerenter: ((PointerEvent) -> dynamic)?\n  override var
onpointerleave: ((PointerEvent) -> dynamic)?\n  override var oncopy: ((ClipboardEvent) -> dynamic)?\n  override
var oncut: ((ClipboardEvent) -> dynamic)?\n  override var onpaste: ((ClipboardEvent) -> dynamic)?\n  override
val fullscreenElement: Element?\n  override val children: HTMLCollection\n  override val firstElementChild:
Element?\n  override val lastElementChild: Element?\n  override val childElementCount: Int\n  fun
getElementsByTagName(qualifiedName: String): HTMLCollection\n  fun
getElementsByTagNameNS(namespace: String?, localName: String): HTMLCollection\n  fun
getElementsByClassName(classNames: String): HTMLCollection\n  fun createElement(localName:
String, options: ElementCreationOptions = definedExternally): Element\n  fun createElementNS(namespace:
String?, qualifiedName: String, options: ElementCreationOptions = definedExternally): Element\n  fun
createDocumentFragment(): DocumentFragment\n  fun createTextNode(data: String): Text\n  fun
createCDATASection(data: String): CDATASection\n  fun createComment(data: String): Comment\n  fun
createProcessingInstruction(target: String, data: String): ProcessingInstruction\n  fun importNode(node: Node,
deep: Boolean = definedExternally): Node\n  fun adoptNode(node: Node): Node\n  fun
createAttribute(localName: String): Attr\n  fun createAttributeNS(namespace: String?, qualifiedName: String):
Attr\n  fun createEvent(`interface`: String): Event\n  fun createRange(): Range\n  fun createNodeIterator(root:
Node, whatToShow: Int = definedExternally, filter: NodeFilter? = definedExternally): NodeIterator\n  fun
createNodeIterator(root: Node, whatToShow:
Int = definedExternally, filter: ((Node) -> Short)? = definedExternally): NodeIterator\n  fun
createTreeWalker(root: Node, whatToShow: Int = definedExternally, filter: NodeFilter? = definedExternally):
TreeWalker\n  fun createTreeWalker(root: Node, whatToShow: Int = definedExternally, filter: ((Node) -> Short)?
= definedExternally): TreeWalker\n  fun getElementsByName(elementName: String): NodeList\n  fun open(type:
String = definedExternally, replace: String = definedExternally): Document\n  fun open(url: String, name: String,
features: String): Window\n  fun close()\n  fun write(vararg text: String)\n  fun writeln(vararg text: String)\n
fun hasFocus(): Boolean\n  fun execCommand(commandId: String, showUI: Boolean = definedExternally, value:
String = definedExternally): Boolean\n  fun queryCommandEnabled(commandId: String): Boolean\n  fun
queryCommandIndeterm(commandId: String): Boolean\n  fun queryCommandState(commandId: String):
Boolean\n  fun queryCommandSupported(commandId:
String): Boolean\n  fun queryCommandValue(commandId: String): String\n  fun clear()\n  fun
captureEvents()\n  fun releaseEvents()\n  fun elementFromPoint(x: Double, y: Double): Element?\n  fun
elementsFromPoint(x: Double, y: Double): Array<Element>\n  fun caretPositionFromPoint(x: Double, y: Double):
CaretPosition?\n  fun createTouch(view: Window, target: EventTarget, identifier: Int, pageX: Int, pageY: Int,
screenX: Int, screenY: Int): Touch\n  fun createTouchList(vararg touches: Touch): TouchList\n  fun
exitFullscreen(): Promise<Unit>\n  override fun getElementById(elementId: String): Element?\n  override fun
prepend(vararg nodes: dynamic)\n  override fun append(vararg nodes: dynamic)\n  override fun
querySelector(selectors: String): Element?\n  override fun querySelectorAll(selectors: String): NodeList\n
override fun getBoxQuads(options: BoxQuadOptions /* = definedExternally */): Array<DOMQuad>\n  override

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fun convertQuadFromNode(quad:
    dynamic, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n    override
fun convertRectFromNode(rect: DOMRectReadOnly, from: dynamic, options: ConvertCoordinateOptions /* =
    definedExternally */): DOMQuad\n    override fun convertPointFromNode(point: DOMPointInit, from: dynamic,
    options: ConvertCoordinateOptions /* = definedExternally */): DOMPoint\n\n    companion object {\n        val
    ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val
    CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE:
    Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
    DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
    DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
    DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING:
    Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n        val
    DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
    DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n
    }\n\n    @Suppress(\"INVISIBLE_REFERENCE\",
    \"INVISIBLE_MEMBER\")\n    @kotlin.internal.InlineOnly\n    public inline operator fun Document.get(name: String):
    dynamic = asDynamic()[name]\n\n    /**\n     * Exposes the JavaScript
    [XMLDocument](https://developer.mozilla.org/en/docs/Web/API/XMLDocument) to Kotlin\n     *\n     public external
    open class XMLDocument : Document {\n        companion object {\n            val ELEMENT_NODE: Short\n            val
            ATTRIBUTE_NODE: Short\n            val TEXT_NODE: Short\n            val CDATA_SECTION_NODE: Short\n            val
            ENTITY_REFERENCE_NODE: Short\n            val ENTITY_NODE: Short\n            val
            PROCESSING_INSTRUCTION_NODE: Short\n            val COMMENT_NODE: Short\n            val
            DOCUMENT_NODE: Short\n            val DOCUMENT_TYPE_NODE: Short\n            val
            DOCUMENT_FRAGMENT_NODE: Short\n            val NOTATION_NODE: Short\n
            val DOCUMENT_POSITION_DISCONNECTED: Short\n            val DOCUMENT_POSITION_PRECEDING:
            Short\n            val DOCUMENT_POSITION_FOLLOWING: Short\n            val
            DOCUMENT_POSITION_CONTAINS: Short\n            val DOCUMENT_POSITION_CONTAINED_BY: Short\n
            val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n        }\n    }\n\n    public external interface
    ElementCreationOptions {\n        var `is`: String?\n        get() = definedExternally\n        set(value) =
        definedExternally\n    }\n\n    @Suppress(\"INVISIBLE_REFERENCE\",
    \"INVISIBLE_MEMBER\")\n    @kotlin.internal.InlineOnly\n    public inline fun ElementCreationOptions(`is`: String?
    = undefined): ElementCreationOptions {\n        val o = js(\"({})\")\n        o[\"is\"] = `is`\n        return o\n    }\n\n    /**\n     *
    Exposes the JavaScript
    [DOMImplementation](https://developer.mozilla.org/en/docs/Web/API/DOMImplementation) to Kotlin\n     *\n     public external
    abstract class DOMImplementation {\n        fun createDocumentType(qualifiedName: String,
        publicId: String, systemId: String):
        DocumentType\n        fun createDocument(namespace: String?, qualifiedName: String, doctype: DocumentType? =
        definedExternally): XMLDocument\n        fun createHTMLDocument(title: String = definedExternally): Document\n
        fun hasFeature(): Boolean\n    }\n\n    /**\n     * Exposes the JavaScript
    [DocumentType](https://developer.mozilla.org/en/docs/Web/API/DocumentType) to Kotlin\n     *\n     public external
    abstract class DocumentType : Node, ChildNode {\n        open val name: String\n        open val publicId: String\n        open
        val systemId: String\n\n        companion object {\n            val ELEMENT_NODE: Short\n            val ATTRIBUTE_NODE:
            Short\n            val TEXT_NODE: Short\n            val CDATA_SECTION_NODE: Short\n            val
            ENTITY_REFERENCE_NODE: Short\n            val ENTITY_NODE: Short\n            val
            PROCESSING_INSTRUCTION_NODE: Short\n            val COMMENT_NODE: Short\n            val
            DOCUMENT_NODE: Short\n            val DOCUMENT_TYPE_NODE: Short\n            val
            DOCUMENT_FRAGMENT_NODE: Short\n            val NOTATION_NODE: Short\n            val
    }

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DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    } \n} \n \n /** \n * Exposes the JavaScript
[DocumentFragment](https://developer.mozilla.org/en/docs/Web/API/DocumentFragment) to Kotlin \n * \n public
external open class DocumentFragment : Node, NonElementParentNode, ParentNode { \n    override val children:
HTMLCollection \n    override val firstElementChild: Element? \n    override val lastElementChild: Element? \n
    override val childElementCount: Int \n    override fun getElementById(elementId: String): Element? \n    override fun
prepend(vararg nodes: dynamic) \n    override fun append(vararg nodes: dynamic) \n    override fun
querySelector(selectors: String): Element? \n    override fun querySelectorAll(selectors: String): NodeList \n \n
companion
    object { \n        val ELEMENT_NODE: Short \n        val ATTRIBUTE_NODE: Short \n        val TEXT_NODE:
Short \n        val CDATA_SECTION_NODE: Short \n        val ENTITY_REFERENCE_NODE: Short \n        val
ENTITY_NODE: Short \n        val PROCESSING_INSTRUCTION_NODE: Short \n        val COMMENT_NODE:
Short \n        val DOCUMENT_NODE: Short \n        val DOCUMENT_TYPE_NODE: Short \n        val
DOCUMENT_FRAGMENT_NODE: Short \n        val NOTATION_NODE: Short \n        val
DOCUMENT_POSITION_DISCONNECTED: Short \n        val DOCUMENT_POSITION_PRECEDING: Short \n
        val DOCUMENT_POSITION_FOLLOWING: Short \n        val DOCUMENT_POSITION_CONTAINS: Short \n
        val DOCUMENT_POSITION_CONTAINED_BY: Short \n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short \n    } \n} \n \n /** \n * Exposes the JavaScript
[ShadowRoot](https://developer.mozilla.org/en/docs/Web/API/ShadowRoot) to Kotlin \n * \n public external open
class ShadowRoot : DocumentFragment, DocumentOrShadowRoot { \n    open val mode: ShadowRootMode \n
    open val host: Element \n    override val fullscreenElement: Element? \n \n    companion object { \n        val
ELEMENT_NODE: Short \n        val ATTRIBUTE_NODE: Short \n        val TEXT_NODE: Short \n        val
CDATA_SECTION_NODE: Short \n        val ENTITY_REFERENCE_NODE: Short \n        val ENTITY_NODE:
Short \n        val PROCESSING_INSTRUCTION_NODE: Short \n        val COMMENT_NODE: Short \n        val
DOCUMENT_NODE: Short \n        val DOCUMENT_TYPE_NODE: Short \n        val
DOCUMENT_FRAGMENT_NODE: Short \n        val NOTATION_NODE: Short \n        val
DOCUMENT_POSITION_DISCONNECTED: Short \n        val DOCUMENT_POSITION_PRECEDING: Short \n
        val DOCUMENT_POSITION_FOLLOWING: Short \n        val DOCUMENT_POSITION_CONTAINS: Short \n
        val DOCUMENT_POSITION_CONTAINED_BY: Short \n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short \n    } \n} \n \n /** \n * Exposes the JavaScript
[Element](https://developer.mozilla.org/en/docs/Web/API/Element) to Kotlin \n * \n public external abstract
class Element : Node, ParentNode, NonDocumentTypeChildNode, ChildNode, Slotable, GeometryUtils,
UnionElementOrHTMLCollection, UnionElementOrRadioNodeList, UnionElementOrMouseEvent,
UnionElementOrProcessingInstruction { \n    open val namespaceURI: String? \n    open val prefix: String? \n    open
val localName: String \n    open val tagName: String \n    open var id: String \n    open var className: String \n    open
val classList: DOMTokenList \n    open var slot: String \n    open val attributes: NamedNodeMap \n    open val
shadowRoot: ShadowRoot? \n    open var scrollTop: Double \n    open var scrollLeft: Double \n    open val
scrollWidth: Int \n    open val scrollHeight: Int \n    open val clientTop: Int \n    open val clientLeft: Int \n    open val
clientWidth: Int \n    open val clientHeight: Int \n    open var innerHTML: String \n    open var outerHTML: String \n
    fun hasAttributes(): Boolean \n    fun getAttributeNames(): Array<String> \n    fun getAttribute(qualifiedName:
String): String? \n
        fun getAttributeNS(namespace: String?, localName: String): String? \n    fun setAttribute(qualifiedName: String,
value: String) \n    fun setAttributeNS(namespace: String?, qualifiedName: String, value: String) \n    fun
removeAttribute(qualifiedName: String) \n    fun removeAttributeNS(namespace: String?, localName: String) \n
    fun hasAttribute(qualifiedName: String): Boolean \n    fun hasAttributeNS(namespace: String?, localName: String):
Boolean \n    fun getAttributeNode(qualifiedName: String): Attr? \n    fun getAttributeNodeNS(namespace: String?,

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localName: String): Attr?\n fun setAttributeNode(attr: Attr): Attr?\n fun setAttributeNodeNS(attr: Attr): Attr?\n
fun removeAttributeNode(attr: Attr): Attr\n fun attachShadow(init: ShadowRootInit): ShadowRoot\n fun
closest(selectors: String): Element?\n fun matches(selectors: String): Boolean\n fun
webkitMatchesSelector(selectors: String): Boolean\n fun getElementsByTagName(qualifiedName: String):
HTMLCollection\n
fun getElementsByTagNameNS(namespace: String?, localName: String): HTMLCollection\n fun
getElementsByTagName(className: String): HTMLCollection\n fun insertAdjacentElement(where: String,
element: Element): Element?\n fun insertAdjacentText(where: String, data: String)\n fun getClientRects():
Array<DOMRect>\n fun getBoundingClientRect(): DOMRect\n fun scrollIntoView()\n fun
scrollIntoView(arg: dynamic)\n fun scroll(options: ScrollToOptions = definedExternally)\n fun scroll(x: Double,
y: Double)\n fun scrollTo(options: ScrollToOptions = definedExternally)\n fun scrollTo(x: Double, y: Double)\n
fun scrollBy(options: ScrollToOptions = definedExternally)\n fun scrollBy(x: Double, y: Double)\n fun
insertAdjacentHTML(position: String, text: String)\n fun setPointerCapture(pointerId: Int)\n fun
releasePointerCapture(pointerId: Int)\n fun hasPointerCapture(pointerId: Int): Boolean\n fun requestFullscreen():
Promise<Unit>\n\n companion
object {\n    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE:
Short\n    val CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val
ENTITY_NODE: Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE:
Short\n    val DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n } \n}\n\npublic external interface
ShadowRootInit {\n    var mode: ShadowRootMode?\n}\n\n@Suppress(\\"INVISIBLE_REFERENCE\",
\\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ShadowRootInit(mode:
ShadowRootMode?): ShadowRootInit
{\n    val o = js(\\"({})\")\n    o[\"mode\"] = mode\n    return o\n}\n\n/**\n * Exposes the JavaScript
[NamedNodeMap](https://developer.mozilla.org/en/docs/Web/API/NamedNodeMap) to Kotlin\n */\npublic external
abstract class NamedNodeMap : ItemArrayLike<Attr> {\n    fun getNamedItemNS(namespace: String?, localName:
String): Attr?\n    fun setNamedItem(attr: Attr): Attr?\n    fun setNamedItemNS(attr: Attr): Attr?\n    fun
removeNamedItem(qualifiedName: String): Attr\n    fun removeNamedItemNS(namespace: String?, localName:
String): Attr\n    override fun item(index: Int): Attr?\n    fun getNamedItem(qualifiedName: String):
Attr?\n}\n\n@Suppress(\\"INVISIBLE_REFERENCE\",
\\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun NamedNodeMap.get(index:
Int): Attr? = asDynamic()[index]\n\n@Suppress(\\"INVISIBLE_REFERENCE\",
\\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun
NamedNodeMap.get(qualifiedName: String): Attr? = asDynamic()[qualifiedName]\n\n/**\n * Exposes the JavaScript [Attr](https://developer.mozilla.org/en/docs/Web/API/Attr) to Kotlin\n */\npublic external
abstract class Attr : Node {\n    open val namespaceURI: String?\n    open val prefix: String?\n    open val
localName: String\n    open val name: String\n    open var value: String\n    open val ownerElement: Element?\n
open val specified: Boolean\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val
ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n

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    val DOCUMENT_POSITION_FOLLOWING:
    Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n    val
DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[CharacterData](https://developer.mozilla.org/en/docs/Web/API/CharacterData) to Kotlin\n *\npublic external
abstract class CharacterData : Node, NonDocumentTypeChildNode, ChildNode {\n    open var data: String\n    open
val length: Int\n    fun substringData(offset: Int, count: Int): String\n    fun appendData(data: String)\n    fun
insertData(offset: Int, data: String)\n    fun deleteData(offset: Int, count: Int)\n    fun replaceData(offset: Int, count:
Int, data: String)\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE:
Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE:
Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[Text](https://developer.mozilla.org/en/docs/Web/API/Text) to Kotlin\n *\npublic external open class Text(data:
String = definedExternally) : CharacterData, Slotable, GeometryUtils {\n    open val wholeText: String\n    override
val assignedSlot: HTMLSlotElement?\n    override val previousElementSibling: Element?\n    override val
nextElementSibling: Element?\n    fun splitText(offset: Int): Text\n    override fun getBoxQuads(options:
BoxQuadOptions /* = definedExternally */): Array<DOMQuad>\n
    override fun convertQuadFromNode(quad: dynamic, from: dynamic, options: ConvertCoordinateOptions /* =
definedExternally */): DOMQuad\n    override fun convertRectFromNode(rect: DOMRectReadOnly, from:
dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n    override fun
convertPointFromNode(point: DOMPointInit, from: dynamic, options: ConvertCoordinateOptions /* =
definedExternally */): DOMPoint\n    override fun before(vararg nodes: dynamic)\n    override fun after(vararg
nodes: dynamic)\n    override fun replaceWith(vararg nodes: dynamic)\n    override fun remove()\n\n    companion
object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE:
Short\n        val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val
ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE:
Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE:
Short\n        val DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[CDATASection](https://developer.mozilla.org/en/docs/Web/API/CDATASection) to Kotlin\n *\npublic external
open class CDATASection : Text {\n    companion object {\n        val ELEMENT_NODE: Short\n        val
ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE:
Short\n        val NOTATION_NODE: Short\n        val DOCUMENT_POSITION_DISCONNECTED: Short\n
        val DOCUMENT_POSITION_PRECEDING: Short\n        val DOCUMENT_POSITION_FOLLOWING: Short\n
        val DOCUMENT_POSITION_CONTAINS: Short\n        val DOCUMENT_POSITION_CONTAINED_BY:

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Short\n    val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes
the JavaScript [ProcessingInstruction](https://developer.mozilla.org/en/docs/Web/API/ProcessingInstruction) to
Kotlin\n\n *\n\npublic external abstract class ProcessingInstruction : CharacterData, LinkStyle,
UnionElementOrProcessingInstruction {\n    open val target: String\n\n    companion object {\n        val
ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val
CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE:
Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n
        val DOCUMENT_TYPE_NODE: Short\n        val DOCUMENT_FRAGMENT_NODE: Short\n        val
NOTATION_NODE: Short\n        val DOCUMENT_POSITION_DISCONNECTED: Short\n        val
DOCUMENT_POSITION_PRECEDING: Short\n        val DOCUMENT_POSITION_FOLLOWING: Short\n
val DOCUMENT_POSITION_CONTAINS: Short\n        val DOCUMENT_POSITION_CONTAINED_BY:
Short\n        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes
the JavaScript [Comment](https://developer.mozilla.org/en/docs/Web/API/Comment) to Kotlin\n\n *\n\npublic external
open class Comment(data: String = definedExternally) : CharacterData {\n    override val previousElementSibling:
Element?\n    override val nextElementSibling: Element?\n    override fun before(vararg nodes: dynamic)\n
override fun after(vararg nodes: dynamic)\n    override fun replaceWith(vararg nodes: dynamic)\n    override fun
remove()\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n
        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[Range](https://developer.mozilla.org/en/docs/Web/API/Range) to Kotlin\n\n *\n\npublic external open class Range {\n
    open val startContainer: Node\n    open val startOffset: Int\n    open val endContainer: Node\n    open val
endOffset: Int\n    open val collapsed: Boolean\n
    open val commonAncestorContainer: Node\n    fun setStart(node: Node, offset: Int)\n    fun setEnd(node: Node,
offset: Int)\n    fun setStartBefore(node: Node)\n    fun setStartAfter(node: Node)\n    fun setEndBefore(node:
Node)\n    fun setEndAfter(node: Node)\n    fun collapse(toStart: Boolean = definedExternally)\n    fun
selectNode(node: Node)\n    fun selectNodeContents(node: Node)\n    fun compareBoundaryPoints(how: Short,
sourceRange: Range): Short\n    fun deleteContents()\n    fun extractContents(): DocumentFragment\n    fun
cloneContents(): DocumentFragment\n    fun insertNode(node: Node)\n    fun surroundContents(newParent: Node)\n
    fun cloneRange(): Range\n    fun detach()\n    fun isPointInRange(node: Node, offset: Int): Boolean\n    fun
comparePoint(node: Node, offset: Int): Short\n    fun intersectsNode(node: Node): Boolean\n    fun getClientRects():
Array<DOMRect>\n    fun getBoundingClientRect(): DOMRect\n    fun createContextualFragment(fragment:
String): DocumentFragment\n\n    companion object {\n        val START_TO_START: Short\n        val START_TO_END: Short\n        val
END_TO_END: Short\n        val END_TO_START: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[NodeIterator](https://developer.mozilla.org/en/docs/Web/API/NodeIterator) to Kotlin\n\n *\n\npublic external abstract
class NodeIterator {\n    open val root: Node\n    open val referenceNode: Node\n    open val
pointerBeforeReferenceNode: Boolean\n    open val whatToShow: Int\n    open val filter: NodeFilter?\n    fun
nextNode(): Node?\n    fun previousNode(): Node?\n    fun detach()\n}\n\n/**\n * Exposes the JavaScript
[TreeWalker](https://developer.mozilla.org/en/docs/Web/API/TreeWalker) to Kotlin\n\n *\n\npublic external abstract
class TreeWalker {\n    open val root: Node\n    open val whatToShow: Int\n    open val filter: NodeFilter?\n    open

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var currentNode: Node\n fun parentNode(): Node?\n fun firstChild(): Node?\n fun lastChild(): Node?\n fun
previousSibling():
Node?\n fun nextSibling(): Node?\n fun previousNode(): Node?\n fun nextNode(): Node?\n}\n\n/**\n *
Exposes the JavaScript [NodeFilter](https://developer.mozilla.org/en/docs/Web/API/NodeFilter) to Kotlin\n
*\n@\n@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")\npublic external interface NodeFilter {\n
fun acceptNode(node: Node): Short\n\n companion object {\n val FILTER_ACCEPT: Short\n val
FILTER_REJECT: Short\n val FILTER_SKIP: Short\n val SHOW_ALL: Int\n val
SHOW_ELEMENT: Int\n val SHOW_ATTRIBUTE: Int\n val SHOW_TEXT: Int\n val
SHOW_CDATA_SECTION: Int\n val SHOW_ENTITY_REFERENCE: Int\n val SHOW_ENTITY: Int\n
val SHOW_PROCESSING_INSTRUCTION: Int\n val SHOW_COMMENT: Int\n val
SHOW_DOCUMENT: Int\n val SHOW_DOCUMENT_TYPE: Int\n val
SHOW_DOCUMENT_FRAGMENT: Int\n val SHOW_NOTATION: Int\n }\n}\n\n/**\n * Exposes the
JavaScript [DOMTokenList](https://developer.mozilla.org/en/docs/Web/API/DOMTokenList)
to Kotlin\n *\npublic external abstract class DOMTokenList : ItemArrayLike<String> {\n open var value:
String\n fun contains(token: String): Boolean\n fun add(vararg tokens: String)\n fun remove(vararg tokens:
String)\n fun toggle(token: String, force: Boolean = definedExternally): Boolean\n fun replace(token: String,
newToken: String)\n fun supports(token: String): Boolean\n override fun item(index: Int):
String?\n}\n\n@\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun DOMTokenList.get(index:
Int): String? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript
[DOMPointReadOnly](https://developer.mozilla.org/en/docs/Web/API/DOMPointReadOnly) to Kotlin\n *\npublic
external open class DOMPointReadOnly(x: Double, y: Double, z: Double, w: Double) {\n open val x: Double\n
open val y: Double\n open val z: Double\n open val w: Double\n fun matrixTransform(matrix:
DOMMatrixReadOnly): DOMPoint}\n\n/**\n * Exposes the JavaScript
[DOMPoint](https://developer.mozilla.org/en/docs/Web/API/DOMPoint) to Kotlin\n *\npublic external open class
DOMPoint : DOMPointReadOnly {\n constructor(point: DOMPointInit)\n constructor(x: Double =
definedExternally, y: Double = definedExternally, z: Double = definedExternally, w: Double = definedExternally)\n
override var x: Double\n override var y: Double\n override var z: Double\n override var w:
Double\n}\n\n/**\n * Exposes the JavaScript
[DOMPointInit](https://developer.mozilla.org/en/docs/Web/API/DOMPointInit) to Kotlin\n *\npublic external
interface DOMPointInit {\n var x: Double? /* = 0.0 */\n get() = definedExternally\n set(value) =
definedExternally\n var y: Double? /* = 0.0 */\n get() = definedExternally\n set(value) =
definedExternally\n var z: Double? /* = 0.0 */\n get() = definedExternally\n set(value) =
definedExternally\n
var w: Double? /* = 1.0 */\n get() = definedExternally\n set(value) =
definedExternally\n}\n\n@\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun DOMPointInit(x: Double? = 0.0, y:
Double? = 0.0, z: Double? = 0.0, w: Double? = 1.0): DOMPointInit {\n val o = js("{}")\n o["x"] = x\n
o["y"] = y\n o["z"] = z\n o["w"] = w\n return o\n}\n\n/**\n * Exposes the JavaScript
[DOMRect](https://developer.mozilla.org/en/docs/Web/API/DOMRect) to Kotlin\n *\npublic external open class
DOMRect(x: Double = definedExternally, y: Double = definedExternally, width: Double = definedExternally,
height: Double = definedExternally) : DOMRectReadOnly {\n override var x: Double\n override var y: Double\n
override var width: Double\n override var height: Double\n}\n\n/**\n * Exposes the JavaScript
[DOMRectReadOnly](https://developer.mozilla.org/en/docs/Web/API/DOMRectReadOnly) to Kotlin\n *\npublic
external
open class DOMRectReadOnly(x: Double, y: Double, width: Double, height: Double) {\n open val x: Double\n
open val y: Double\n open val width: Double\n open val height: Double\n open val top: Double\n open val
right: Double\n open val bottom: Double\n open val left: Double\n}\n\npublic external interface DOMRectInit

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{\n  var x: Double? /* = 0.0 */\n    get() = definedExternally\n    set(value) = definedExternally\n  var y:
Double? /* = 0.0 */\n    get() = definedExternally\n    set(value) = definedExternally\n  var width: Double? /*
= 0.0 */\n    get() = definedExternally\n    set(value) = definedExternally\n  var height: Double? /* = 0.0 */\n
    get() = definedExternally\n    set(value) = definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun DOMRectInit(x: Double? = 0.0, y:
Double? = 0.0, width: Double? = 0.0, height: Double? = 0.0): DOMRectInit
{\n  val o = js("{}")\n  o["x"] = x\n  o["y"] = y\n  o["width"] = width\n  o["height"] = height\n
return o}\n\npublic external interface DOMRectList : ItemArrayLike<DOMRect> {\n  override fun item(index:
Int): DOMRect?\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun DOMRectList.get(index: Int):
DOMRect? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript
[DOMQuad](https://developer.mozilla.org/en/docs/Web/API/DOMQuad) to Kotlin\n */\npublic external open class
DOMQuad {\n  constructor(p1: DOMPointInit = definedExternally, p2: DOMPointInit = definedExternally, p3:
DOMPointInit = definedExternally, p4: DOMPointInit = definedExternally)\n  constructor(rect: DOMRectInit)\n
open val p1: DOMPoint\n  open val p2: DOMPoint\n  open val p3: DOMPoint\n  open val p4: DOMPoint\n
open val bounds: DOMRectReadOnly\n}\n\n/**\n * Exposes the JavaScript
[DOMMatrixReadOnly](https://developer.mozilla.org/en/docs/Web/API/DOMMatrixReadOnly)
to Kotlin\n */\npublic external open class DOMMatrixReadOnly(numberSequence: Array<Double>) {\n  open val
a: Double\n  open val b: Double\n  open val c: Double\n  open val d: Double\n  open val e: Double\n  open val
f: Double\n  open val m11: Double\n  open val m12: Double\n  open val m13: Double\n  open val m14:
Double\n  open val m21: Double\n  open val m22: Double\n  open val m23: Double\n  open val m24: Double\n
open val m31: Double\n  open val m32: Double\n  open val m33: Double\n  open val m34: Double\n  open val
m41: Double\n  open val m42: Double\n  open val m43: Double\n  open val m44: Double\n  open val is2D:
Boolean\n  open val isIdentity: Boolean\n  fun translate(tx: Double, ty: Double, tz: Double = definedExternally):
DOMMatrix\n  fun scale(scale: Double, originX: Double = definedExternally, originY: Double =
definedExternally): DOMMatrix\n  fun scale3d(scale: Double,
originX: Double = definedExternally, originY: Double = definedExternally, originZ: Double = definedExternally):
DOMMatrix\n  fun scaleNonUniform(scaleX: Double, scaleY: Double = definedExternally, scaleZ: Double =
definedExternally, originX: Double = definedExternally, originY: Double = definedExternally, originZ: Double =
definedExternally): DOMMatrix\n  fun rotate(angle: Double, originX: Double = definedExternally, originY:
Double = definedExternally): DOMMatrix\n  fun rotateFromVector(x: Double, y: Double): DOMMatrix\n  fun
rotateAxisAngle(x: Double, y: Double, z: Double, angle: Double): DOMMatrix\n  fun skewX(sx: Double):
DOMMatrix\n  fun skewY(sy: Double): DOMMatrix\n  fun multiply(other: DOMMatrix): DOMMatrix\n  fun
flipX(): DOMMatrix\n  fun flipY(): DOMMatrix\n  fun inverse(): DOMMatrix\n  fun transformPoint(point:
DOMPointInit = definedExternally): DOMPoint\n  fun toFloat32Array(): Float32Array\n  fun toFloat64Array():
Float64Array\n}\n\n/**\n *
Exposes the JavaScript [DOMMatrix](https://developer.mozilla.org/en/docs/Web/API/DOMMatrix) to Kotlin\n
*/\npublic external open class DOMMatrix(): DOMMatrixReadOnly {\n  constructor(transformList: String)\n
constructor(other: DOMMatrixReadOnly)\n  constructor(array32: Float32Array)\n  constructor(array64:
Float64Array)\n  constructor(numberSequence: Array<Double>)\n  override var a: Double\n  override var b:
Double\n  override var c: Double\n  override var d: Double\n  override var e: Double\n  override var f:
Double\n  override var m11: Double\n  override var m12: Double\n  override var m13: Double\n  override var
m14: Double\n  override var m21: Double\n  override var m22: Double\n  override var m23: Double\n  override
var m24: Double\n  override var m31: Double\n  override var m32: Double\n  override var m33: Double\n
override var m34: Double\n  override var m41: Double\n  override var m42: Double\n  override var m43:
Double\n
    override var m44: Double\n  fun multiplySelf(other: DOMMatrix): DOMMatrix\n  fun preMultiplySelf(other:
DOMMatrix): DOMMatrix\n  fun translateSelf(tx: Double, ty: Double, tz: Double = definedExternally):

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DOMMatrix\n fun scaleSelf(scale: Double, originX: Double = definedExternally, originY: Double =
definedExternally): DOMMatrix\n fun scale3dSelf(scale: Double, originX: Double = definedExternally, originY:
Double = definedExternally, originZ: Double = definedExternally): DOMMatrix\n fun
scaleNonUniformSelf(scaleX: Double, scaleY: Double = definedExternally, scaleZ: Double = definedExternally,
originX: Double = definedExternally, originY: Double = definedExternally, originZ: Double = definedExternally):
DOMMatrix\n fun rotateSelf(angle: Double, originX: Double = definedExternally, originY: Double =
definedExternally): DOMMatrix\n fun rotateFromVectorSelf(x: Double, y: Double): DOMMatrix\n fun
rotateAxisAngleSelf(x: Double, y: Double, z: Double, angle: Double):
DOMMatrix\n fun skewXSelf(sx: Double): DOMMatrix\n fun skewYSelf(sy: Double): DOMMatrix\n fun
invertSelf(): DOMMatrix\n fun setMatrixValue(transformList: String): DOMMatrix\n}\n\npublic external
interface ScrollOptions {\n var behavior: ScrollBehavior? /* = ScrollBehavior.AUTO */\n get() =
definedExternally\n set(value) = definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun ScrollOptions(behavior:
ScrollBehavior? = ScrollBehavior.AUTO): ScrollOptions {\n val o = js("{}")\n o["behavior"] = behavior\n
return o\n}\n\n/**\n * Exposes the JavaScript
[ScrollToOptions](https://developer.mozilla.org/en/docs/Web/API/ScrollToOptions) to Kotlin\n */\npublic external
interface ScrollToOptions : ScrollOptions {\n var left: Double?\n get() = definedExternally\n set(value) =
definedExternally\n var top: Double?\n get() = definedExternally\n set(value)
= definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun ScrollToOptions(left: Double? =
undefined, top: Double? = undefined, behavior: ScrollBehavior? = ScrollBehavior.AUTO): ScrollToOptions {\n
val o = js("{}")\n o["left"] = left\n o["top"] = top\n o["behavior"] = behavior\n return o\n}\n\n/**\n *
Exposes the JavaScript [MediaQueryList](https://developer.mozilla.org/en/docs/Web/API/MediaQueryList) to
Kotlin\n */\npublic external abstract class MediaQueryList : EventTarget {\n open val media: String\n open val
matches: Boolean\n open var onchange: ((Event) -> dynamic)?\n fun addListener(listener: EventListener?)\n
fun addListener(listener: ((Event) -> Unit)?)\n fun removeListener(listener: EventListener?)\n fun
removeListener(listener: ((Event) -> Unit)?)\n}\n\n/**\n * Exposes the JavaScript
[MediaQueryListEvent](https://developer.mozilla.org/en/docs/Web/API/MediaQueryListEvent)
to Kotlin\n */\npublic external open class MediaQueryListEvent(type: String, eventInitDict:
MediaQueryListEventInit = definedExternally) : Event {\n open val media: String\n open val matches:
Boolean\n\n companion object {\n val NONE: Short\n val CAPTURING_PHASE: Short\n val
AT_TARGET: Short\n val BUBBLING_PHASE: Short\n }\n}\n\npublic external interface
MediaQueryListEventInit : EventInit {\n var media: String? /* = "" */\n get() = definedExternally\n
set(value) = definedExternally\n var matches: Boolean? /* = false */\n get() = definedExternally\n
set(value) = definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun MediaQueryListEventInit(media:
String? = "", matches: Boolean? = false, bubbles: Boolean? = false, cancelable: Boolean? = false, composed:
Boolean? = false): MediaQueryListEventInit {\n val o = js("{}")\n
o["media"] = media\n o["matches"] = matches\n o["bubbles"] = bubbles\n o["cancelable"] =
cancelable\n o["composed"] = composed\n return o\n}\n\n/**\n * Exposes the JavaScript
[Screen](https://developer.mozilla.org/en/docs/Web/API/Screen) to Kotlin\n */\npublic external abstract class
Screen {\n open val availWidth: Int\n open val availHeight: Int\n open val width: Int\n open val height: Int\n
open val colorDepth: Int\n open val pixelDepth: Int\n}\n\n/**\n * Exposes the JavaScript
[CaretPosition](https://developer.mozilla.org/en/docs/Web/API/CaretPosition) to Kotlin\n */\npublic external
abstract class CaretPosition {\n open val offsetNode: Node\n open val offset: Int\n fun getClientRect():
DOMRect?\n}\n\npublic external interface ScrollIntoViewOptions : ScrollOptions {\n var block:
ScrollLogicalPosition? /* = ScrollLogicalPosition.CENTER */\n get() = definedExternally\n set(value) =
definedExternally\n var inline:

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dynamic)?\n  override var ondragleave: ((DragEvent) -> dynamic)?\n  override var ondragover: ((DragEvent) ->
dynamic)?\n  override var ondragstart: ((DragEvent) -> dynamic)?\n  override var ondrop: ((DragEvent) ->
dynamic)?\n  override var ondurationchange: ((Event) -> dynamic)?\n  override var onemptied: ((Event) ->
dynamic)?\n
  override var onended: ((Event) -> dynamic)?\n  override var onerror: ((dynamic, String, Int, Int, Any?) ->
dynamic)?\n  override var onfocus: ((FocusEvent) -> dynamic)?\n  override var oninput: ((InputEvent) ->
dynamic)?\n  override var oninvalid: ((Event) -> dynamic)?\n  override var onkeydown: ((KeyboardEvent) ->
dynamic)?\n  override var onkeypress: ((KeyboardEvent) -> dynamic)?\n  override var onkeyup:
((KeyboardEvent) -> dynamic)?\n  override var onload: ((Event) -> dynamic)?\n  override var onloadeddata:
((Event) -> dynamic)?\n  override var onloadedmetadata: ((Event) -> dynamic)?\n  override var onloadend:
((Event) -> dynamic)?\n  override var onloadstart: ((ProgressEvent) -> dynamic)?\n  override var onmousedown:
((MouseEvent) -> dynamic)?\n  override var onmouseenter: ((MouseEvent) -> dynamic)?\n  override var
onmouseleave: ((MouseEvent) -> dynamic)?\n  override var onmousemove: ((MouseEvent) -> dynamic)?\n
  override var onmouseout: ((MouseEvent)
-> dynamic)?\n  override var onmouseover: ((MouseEvent) -> dynamic)?\n  override var onmouseup:
((MouseEvent) -> dynamic)?\n  override var onwheel: ((WheelEvent) -> dynamic)?\n  override var onpause:
((Event) -> dynamic)?\n  override var onplay: ((Event) -> dynamic)?\n  override var onplaying: ((Event) ->
dynamic)?\n  override var onprogress: ((ProgressEvent) -> dynamic)?\n  override var onratechange: ((Event) ->
dynamic)?\n  override var onreset: ((Event) -> dynamic)?\n  override var onresize: ((Event) -> dynamic)?\n
  override var onscroll: ((Event) -> dynamic)?\n  override var onseeked: ((Event) -> dynamic)?\n  override var
onseeking: ((Event) -> dynamic)?\n  override var onselect: ((Event) -> dynamic)?\n  override var onshow:
((Event) -> dynamic)?\n  override var onstalled: ((Event) -> dynamic)?\n  override var onsubmit: ((Event) ->
dynamic)?\n  override var onsuspend: ((Event) -> dynamic)?\n  override var ontimeupdate: ((Event) ->
dynamic)?\n  override var ontoggle: ((Event) -> dynamic)?\n  override var onvolumechange: ((Event) ->
dynamic)?\n  override var onwaiting: ((Event) -> dynamic)?\n  override var ongotpointercapture: ((PointerEvent)
-> dynamic)?\n  override var onlostpointercapture: ((PointerEvent) -> dynamic)?\n  override var onpointerdown:
((PointerEvent) -> dynamic)?\n  override var onpointermove: ((PointerEvent) -> dynamic)?\n  override var
onpointerup: ((PointerEvent) -> dynamic)?\n  override var onpointercancel: ((PointerEvent) -> dynamic)?\n
  override var onpointerover: ((PointerEvent) -> dynamic)?\n  override var onpointerout: ((PointerEvent) ->
dynamic)?\n  override var onpointerenter: ((PointerEvent) -> dynamic)?\n  override var onpointerleave:
((PointerEvent) -> dynamic)?\n  override var oncopy: ((ClipboardEvent) -> dynamic)?\n  override var oncut:
((ClipboardEvent) -> dynamic)?\n  override var onpaste: ((ClipboardEvent) -> dynamic)?\n  override var
contentEditable:
String\n  override val isContentEditable: Boolean\n  override val style: CSSStyleDeclaration\n  override val
children: HTMLCollection\n  override val firstElementChild: Element?\n  override val lastElementChild:
Element?\n  override val childElementCount: Int\n  override val previousElementSibling: Element?\n  override
val nextElementSibling: Element?\n  override val assignedSlot: HTMLSlotElement?\n  override fun
prepend(vararg nodes: dynamic)\n  override fun append(vararg nodes: dynamic)\n  override fun
querySelector(selectors: String): Element?\n  override fun querySelectorAll(selectors: String): NodeList\n
  override fun before(vararg nodes: dynamic)\n  override fun after(vararg nodes: dynamic)\n  override fun
replaceWith(vararg nodes: dynamic)\n  override fun remove()\n  override fun getBoxQuads(options:
BoxQuadOptions /* = definedExternally */): Array<DOMQuad>\n  override fun convertQuadFromNode(quad:
dynamic, from: dynamic, options: ConvertCoordinateOptions
/* = definedExternally */): DOMQuad\n  override fun convertRectFromNode(rect: DOMRectReadOnly, from:
dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n  override fun
convertPointFromNode(point: DOMPointInit, from: dynamic, options: ConvertCoordinateOptions /* =
definedExternally */): DOMPoint\n\n  companion object {\n    val ELEMENT_NODE: Short\n    val
ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val

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ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n    val
PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS:
Short\n    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }|n}|n\n\npublic external open class
Audio(src: String = definedExternally) : HTMLAudioElement {
    override var onabort: ((Event) -> dynamic)?\n
    override var onblur: ((FocusEvent) -> dynamic)?\n
    override var oncancel: ((Event) -> dynamic)?\n
    override var oncanplay: ((Event) -> dynamic)?\n
    override var oncanplaythrough: ((Event) -> dynamic)?\n
    override var onchange: ((Event) -> dynamic)?\n
    override var onclick: ((MouseEvent) -> dynamic)?\n
    override var onclose: ((Event) -> dynamic)?\n
    override var oncontextmenu: ((MouseEvent) -> dynamic)?\n
    override var oncuechange: ((Event) -> dynamic)?\n
    override var ondblclick: ((MouseEvent) -> dynamic)?\n
    override var ondrag: ((DragEvent) -> dynamic)?\n
    override var ondragend: ((DragEvent) -> dynamic)?\n
    override var ondragenter: ((DragEvent) -> dynamic)?\n
    override var ondragexit: ((DragEvent) -> dynamic)?\n
    override var ondragleave: ((DragEvent) -> dynamic)?\n
    override var ondragover: ((DragEvent) -> dynamic)?\n
    override var ondragstart: ((DragEvent) -> dynamic)?\n
    override var ondrop: ((DragEvent) -> dynamic)?\n
    override var ondurationchange: ((Event) -> dynamic)?\n
    override var onemptied: ((Event) -> dynamic)?\n
    override var onended: ((Event) -> dynamic)?\n
    override var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\n
    override var onfocus: ((FocusEvent) -> dynamic)?\n
    override var oninput: ((InputEvent) -> dynamic)?\n
    override var oninvalid: ((Event) -> dynamic)?\n
    override var onkeydown: ((KeyboardEvent) -> dynamic)?\n
    override var onkeypress: ((KeyboardEvent) -> dynamic)?\n
    override var onkeyup: ((KeyboardEvent) -> dynamic)?\n
    override var onload: ((Event) -> dynamic)?\n
    override var onloadeddata: ((Event) -> dynamic)?\n
    override var onloadedmetadata: ((Event) -> dynamic)?\n
    override var onloadend: ((Event) -> dynamic)?\n
    override var onloadstart: ((ProgressEvent) -> dynamic)?\n
    override var onmousedown: ((MouseEvent) -> dynamic)?\n
    override var onmouseenter: ((MouseEvent) -> dynamic)?\n
    override var onmouseleave: ((MouseEvent) -> dynamic)?\n
    override var onmousemove: ((MouseEvent) -> dynamic)?\n
    override var onmouseout: ((MouseEvent) -> dynamic)?\n
    override var onmouseover: ((MouseEvent) -> dynamic)?\n
    override var onmouseup: ((MouseEvent) -> dynamic)?\n
    override var onwheel: ((WheelEvent) -> dynamic)?\n
    override var onpause: ((Event) -> dynamic)?\n
    override var onplay: ((Event) -> dynamic)?\n
    override var onplaying: ((Event) -> dynamic)?\n
    override var onprogress: ((ProgressEvent) -> dynamic)?\n
    override var onratechange: ((Event) -> dynamic)?\n
    override var onreset: ((Event) -> dynamic)?\n
    override var onresize: ((Event) -> dynamic)?\n
    override var onscroll: ((Event) -> dynamic)?\n
    override var onseeked: ((Event) -> dynamic)?\n
    override var onseeking: ((Event) -> dynamic)?\n
    override var onselect: ((Event) -> dynamic)?\n
    override var onshow: ((Event) -> dynamic)?\n
    override var onstalled: ((Event) -> dynamic)?\n
    override var onsubmit: ((Event) -> dynamic)?\n
    override var onsuspend: ((Event) -> dynamic)?\n
    override var ontimeupdate: ((Event) -> dynamic)?\n
    override var ontoggle: ((Event) -> dynamic)?\n
    override var onvolumechange: ((Event) -> dynamic)?\n
    override var onwaiting: ((Event) -> dynamic)?\n
    override var ongotpointercapture: ((PointerEvent) -> dynamic)?\n
    override var onlostpointercapture: ((PointerEvent) -> dynamic)?\n
    override var onpointerdown: ((PointerEvent) -> dynamic)?\n
    override var onpointermove: ((PointerEvent) -> dynamic)?\n
    override var onpointerup: ((PointerEvent) -> dynamic)?\n
    override var onpointercancel: ((PointerEvent) -> dynamic)?\n
    override var onpointerover: ((PointerEvent) -> dynamic)?\n
    override var onpointerout: ((PointerEvent) -> dynamic)?\n
    override var onpointerenter: ((PointerEvent) -> dynamic)?\n
    override var onpointerleave: ((PointerEvent) -> dynamic)?\n
    override var oncopy: ((ClipboardEvent) -> dynamic)?\n
    override var oncut: ((ClipboardEvent) -> dynamic)?\n
    override var onpaste: ((ClipboardEvent) -> dynamic)?\n
    override

```



```

var contentEditable: String\n  override val isContentEditable: Boolean\n  override val style:
CSSStyleDeclaration\n  override val children: HTMLCollection\n  override val firstElementChild: Element?\n
override val lastElementChild: Element?\n  override val childElementCount: Int\n  override val
previousElementSibling: Element?\n  override val nextElementSibling: Element?\n  override val assignedSlot:
HTMLSlotElement?\n  override fun prepend(vararg nodes: dynamic)\n  override fun append(vararg nodes:
dynamic)\n  override fun querySelector(selectors: String): Element?\n  override fun querySelectorAll(selectors:
String): NodeList\n
    override fun before(vararg nodes: dynamic)\n  override fun after(vararg nodes: dynamic)\n  override fun
replaceWith(vararg nodes: dynamic)\n  override fun remove()\n  override fun getBoxQuads(options:
BoxQuadOptions /* = definedExternally */): Array<DOMQuad>\n  override fun convertQuadFromNode(quad:
dynamic, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n  override
fun convertRectFromNode(rect: DOMRectReadOnly, from: dynamic, options: ConvertCoordinateOptions /* =
definedExternally */): DOMQuad\n  override fun convertPointFromNode(point: DOMPointInit, from: dynamic,
options: ConvertCoordinateOptions /* = definedExternally */): DOMPoint\n\n  companion object {\n    val
NETWORK_EMPTY: Short\n    val NETWORK_IDLE: Short\n    val NETWORK_LOADING: Short\n
val NETWORK_NO_SOURCE: Short\n    val HAVE_NOTHING: Short\n    val HAVE_METADATA:
Short\n    val HAVE_CURRENT_DATA: Short\n    val HAVE_FUTURE_DATA:
Short\n    val HAVE_ENOUGH_DATA: Short\n    val ELEMENT_NODE: Short\n    val
ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val
ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n    val
PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n  }\n\n  /**\n   * Exposes the JavaScript
[Option](https://developer.mozilla.org/en/docs/Web/API/Option) to Kotlin\n   */\n  public external open class
Option(text: String = definedExternally, value: String
= definedExternally, defaultSelected: Boolean = definedExternally, selected: Boolean = definedExternally) :
HTMLOptionElement {\n    override var onabort: ((Event) -> dynamic)?\n    override var onblur: ((FocusEvent) ->
dynamic)?\n    override var oncancel: ((Event) -> dynamic)?\n    override var oncanplay: ((Event) -> dynamic)?\n
override var oncanplaythrough: ((Event) -> dynamic)?\n    override var onchange: ((Event) -> dynamic)?\n
override var onclick: ((MouseEvent) -> dynamic)?\n    override var onclose: ((Event) -> dynamic)?\n    override var
oncontextmenu: ((MouseEvent) -> dynamic)?\n    override var oncuechange: ((Event) -> dynamic)?\n    override var
ondblclick: ((MouseEvent) -> dynamic)?\n    override var ondrag: ((DragEvent) -> dynamic)?\n    override var
ondragend: ((DragEvent) -> dynamic)?\n    override var ondragenter: ((DragEvent) -> dynamic)?\n    override var
ondragexit: ((DragEvent) -> dynamic)?\n    override var ondragleave: ((DragEvent) -> dynamic)?\n
override var ondragover: ((DragEvent) -> dynamic)?\n    override var ondragstart: ((DragEvent) -> dynamic)?\n
override var ondrop: ((DragEvent) -> dynamic)?\n    override var ondurationchange: ((Event) -> dynamic)?\n
override var onemptied: ((Event) -> dynamic)?\n    override var onended: ((Event) -> dynamic)?\n    override var
onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\n    override var onfocus: ((FocusEvent) -> dynamic)?\n
override var oninput: ((InputEvent) -> dynamic)?\n    override var oninvalid: ((Event) -> dynamic)?\n    override var
onkeydown: ((KeyboardEvent) -> dynamic)?\n    override var onkeypress: ((KeyboardEvent) -> dynamic)?\n
override var onkeyup: ((KeyboardEvent) -> dynamic)?\n    override var onload: ((Event) -> dynamic)?\n    override
var onloadeddata: ((Event) -> dynamic)?\n    override var onloadedmetadata: ((Event) -> dynamic)?\n    override var
onloadend: ((Event) -> dynamic)?\n    override var onloadstart: ((ProgressEvent) -> dynamic)?\n

```

```

    override var onmousedown: ((MouseEvent) -> dynamic)?\n    override var onmouseenter: ((MouseEvent) ->
dynamic)?\n    override var onmouseleave: ((MouseEvent) -> dynamic)?\n    override var onmousemove:
((MouseEvent) -> dynamic)?\n    override var onmouseout: ((MouseEvent) -> dynamic)?\n    override var
onmouseover: ((MouseEvent) -> dynamic)?\n    override var onmouseup: ((MouseEvent) -> dynamic)?\n    override
var onwheel: ((WheelEvent) -> dynamic)?\n    override var onpause: ((Event) -> dynamic)?\n    override var onplay:
((Event) -> dynamic)?\n    override var onplaying: ((Event) -> dynamic)?\n    override var onprogress:
((ProgressEvent) -> dynamic)?\n    override var onratechange: ((Event) -> dynamic)?\n    override var onreset:
((Event) -> dynamic)?\n    override var onresize: ((Event) -> dynamic)?\n    override var onscroll: ((Event) ->
dynamic)?\n    override var onseeked: ((Event) -> dynamic)?\n    override var onseeking: ((Event) -> dynamic)?\n
override var onselect: ((Event)
-> dynamic)?\n    override var onshow: ((Event) -> dynamic)?\n    override var onstalled: ((Event) -> dynamic)?\n
override var onsubmit: ((Event) -> dynamic)?\n    override var onsuspend: ((Event) -> dynamic)?\n    override var
ontimeupdate: ((Event) -> dynamic)?\n    override var ontoggle: ((Event) -> dynamic)?\n    override var
onvolumechange: ((Event) -> dynamic)?\n    override var onwaiting: ((Event) -> dynamic)?\n    override var
ongotpointercapture: ((PointerEvent) -> dynamic)?\n    override var onlostpointercapture: ((PointerEvent) ->
dynamic)?\n    override var onpointerdown: ((PointerEvent) -> dynamic)?\n    override var onpointermove:
((PointerEvent) -> dynamic)?\n    override var onpointerup: ((PointerEvent) -> dynamic)?\n    override var
onpointercancel: ((PointerEvent) -> dynamic)?\n    override var onpointerover: ((PointerEvent) -> dynamic)?\n
override var onpointerout: ((PointerEvent) -> dynamic)?\n    override var onpointerenter: ((PointerEvent) ->
dynamic)?\n
    override var onpointerleave: ((PointerEvent) -> dynamic)?\n    override var oncopy: ((ClipboardEvent) ->
dynamic)?\n    override var oncut: ((ClipboardEvent) -> dynamic)?\n    override var onpaste: ((ClipboardEvent) ->
dynamic)?\n    override var contentEditable: String\n    override val isContentEditable: Boolean\n    override val
style: CSSStyleDeclaration\n    override val children: HTMLCollection\n    override val firstElementChild:
Element?\n    override val lastElementChild: Element?\n    override val childElementCount: Int\n    override val
previousElementSibling: Element?\n    override val nextElementSibling: Element?\n    override val assignedSlot:
HTMLSlotElement?\n    override fun prepend(vararg nodes: dynamic)\n    override fun append(vararg nodes:
dynamic)\n    override fun querySelector(selectors: String): Element?\n    override fun querySelectorAll(selectors:
String): NodeList\n    override fun before(vararg nodes: dynamic)\n    override fun after(vararg nodes: dynamic)\n
    override fun replaceWith(vararg nodes: dynamic)\n    override fun remove()\n    override fun
getBoxQuads(options: BoxQuadOptions /* = definedExternally */): Array<DOMQuad>\n    override fun
convertQuadFromNode(quad: dynamic, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally
*/): DOMQuad\n    override fun convertRectFromNode(rect: DOMRectReadOnly, from: dynamic, options:
ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n    override fun convertPointFromNode(point:
DOMPointInit, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMPoint\n\n
companion object {\n    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val
TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE:
Short\n    val ENTITY_NODE: Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val
COMMENT_NODE: Short\n    val DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE:
Short\n    val DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n\n\npublic external interface
UnionElementOrHTMLCollection\n\npublic external interface UnionElementOrRadioNodeList\n\npublic external
interface UnionHTMLOptGroupElementOrHTMLOptionElement\n\npublic external interface
UnionAudioTrackOrTextTrackOrVideoTrack\n\npublic external interface UnionElementOrMouseEvent\n\npublic
external interface UnionMessagePortOrWindowProxy\n\npublic external interface MediaProvider\n\npublic

```

```

external interface RenderingContext\n\npublic external interface HTMLOrSVGImageElement :
CanvasImageSource\n\npublic external interface CanvasImageSource : ImageBitmapSource\n\npublic
external interface ImageBitmapSource\n\npublic external interface HTMLOrSVGScriptElement\n\n/* please, don't
implement this interface!
*\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic external
interface DocumentReadyState {\n companion object\n}\n\npublic inline val
DocumentReadyState.Companion.LOADING: DocumentReadyState get() =
\"loading\".asDynamic().unsafeCast<DocumentReadyState>()\n\npublic inline val
DocumentReadyState.Companion.INTERACTIVE: DocumentReadyState get() =
\"interactive\".asDynamic().unsafeCast<DocumentReadyState>()\n\npublic inline val
DocumentReadyState.Companion.COMPLETE: DocumentReadyState get() =
\"complete\".asDynamic().unsafeCast<DocumentReadyState>()\n\n/* please, don't implement this interface!
*\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic external
interface CanPlayTypeResult {\n companion object\n}\n\npublic inline val
CanPlayTypeResult.Companion.EMPTY: CanPlayTypeResult get() =
\"\".asDynamic().unsafeCast<CanPlayTypeResult>()\n\npublic
inline val CanPlayTypeResult.Companion.MAYBE: CanPlayTypeResult get() =
\"maybe\".asDynamic().unsafeCast<CanPlayTypeResult>()\n\npublic inline val
CanPlayTypeResult.Companion.PROBABLY: CanPlayTypeResult get() =
\"probably\".asDynamic().unsafeCast<CanPlayTypeResult>()\n\n/* please, don't implement this interface!
*\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic external
interface TextTrackMode {\n companion object\n}\n\npublic inline val TextTrackMode.Companion.DISABLED:
TextTrackMode get() = \"disabled\".asDynamic().unsafeCast<TextTrackMode>()\n\npublic inline val
TextTrackMode.Companion.HIDDEN: TextTrackMode get() =
\"hidden\".asDynamic().unsafeCast<TextTrackMode>()\n\npublic inline val
TextTrackMode.Companion.SHOWING: TextTrackMode get() =
\"showing\".asDynamic().unsafeCast<TextTrackMode>()\n\n/* please, don't implement this interface!
*\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic
external interface TextTrackKind {\n companion object\n}\n\npublic inline val
TextTrackKind.Companion.SUBTITLES: TextTrackKind get() =
\"subtitles\".asDynamic().unsafeCast<TextTrackKind>()\n\npublic inline val
TextTrackKind.Companion.CAPTIONS: TextTrackKind get() =
\"captions\".asDynamic().unsafeCast<TextTrackKind>()\n\npublic inline val
TextTrackKind.Companion.DESCRPTIONS: TextTrackKind get() =
\"descriptions\".asDynamic().unsafeCast<TextTrackKind>()\n\npublic inline val
TextTrackKind.Companion.CHAPTERS: TextTrackKind get() =
\"chapters\".asDynamic().unsafeCast<TextTrackKind>()\n\npublic inline val
TextTrackKind.Companion.METADATA: TextTrackKind get() =
\"metadata\".asDynamic().unsafeCast<TextTrackKind>()\n\n/* please, don't implement this interface!
*\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic external
interface SelectionMode {\n companion object\n}\n\npublic inline val SelectionMode.Companion.SELECT:
SelectionMode get()
= \"select\".asDynamic().unsafeCast<SelectionMode>()\n\npublic inline val SelectionMode.Companion.START:
SelectionMode get() = \"start\".asDynamic().unsafeCast<SelectionMode>()\n\npublic inline val
SelectionMode.Companion.END: SelectionMode get() =
\"end\".asDynamic().unsafeCast<SelectionMode>()\n\npublic inline val SelectionMode.Companion.PRESERVE:
SelectionMode get() = \"preserve\".asDynamic().unsafeCast<SelectionMode>()\n\n/* please, don't implement this
interface! *\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic

```

```

external interface CanvasFillRule {
    companion object
}
public inline val
CanvasFillRule.Companion.NONZERO: CanvasFillRule get() =
    "nonzero".asDynamic().unsafeCast<CanvasFillRule>()
public inline val
CanvasFillRule.Companion.EVENODD: CanvasFillRule get() =
    "evenodd".asDynamic().unsafeCast<CanvasFillRule>()
/* please, don't implement this interface!
*/
@JsName("null")
@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")
public
external interface ImageSmoothingQuality {
    companion object
}
public inline val
ImageSmoothingQuality.Companion.LOW: ImageSmoothingQuality get() =
    "low".asDynamic().unsafeCast<ImageSmoothingQuality>()
public inline val
ImageSmoothingQuality.Companion.MEDIUM: ImageSmoothingQuality get() =
    "medium".asDynamic().unsafeCast<ImageSmoothingQuality>()
public inline val
ImageSmoothingQuality.Companion.HIGH: ImageSmoothingQuality get() =
    "high".asDynamic().unsafeCast<ImageSmoothingQuality>()
/* please, don't implement this interface!
*/
@JsName("null")
@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")
public
external
interface CanvasLineCap {
    companion object
}
public inline val CanvasLineCap.Companion.BUTT:
CanvasLineCap get() = "butt".asDynamic().unsafeCast<CanvasLineCap>()
public inline val
CanvasLineCap.Companion.ROUND: CanvasLineCap get() =
    "round".asDynamic().unsafeCast<CanvasLineCap>()
public inline val CanvasLineCap.Companion.SQUARE:
CanvasLineCap get() = "square".asDynamic().unsafeCast<CanvasLineCap>()
/* please, don't implement this
interface!
*/
@JsName("null")
@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")
public
external
interface CanvasLineJoin {
    companion object
}
public inline val
CanvasLineJoin.Companion.ROUND: CanvasLineJoin get() =
    "round".asDynamic().unsafeCast<CanvasLineJoin>()
public inline val CanvasLineJoin.Companion.BEVEL:
CanvasLineJoin get() = "bevel".asDynamic().unsafeCast<CanvasLineJoin>()
public inline val
CanvasLineJoin.Companion.MITER: CanvasLineJoin get() =
    "miter".asDynamic().unsafeCast<CanvasLineJoin>()
/* please, don't implement this interface!
*/
@JsName("null")
@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")
public
external
interface CanvasTextAlign {
    companion object
}
public inline val CanvasTextAlign.Companion.START:
CanvasTextAlign get() = "start".asDynamic().unsafeCast<CanvasTextAlign>()
public inline val
CanvasTextAlign.Companion.END:
CanvasTextAlign get() = "end".asDynamic().unsafeCast<CanvasTextAlign>()
public inline val
CanvasTextAlign.Companion.LEFT: CanvasTextAlign get() =
    "left".asDynamic().unsafeCast<CanvasTextAlign>()
public inline val CanvasTextAlign.Companion.RIGHT:
CanvasTextAlign get() = "right".asDynamic().unsafeCast<CanvasTextAlign>()
public inline val
CanvasTextAlign.Companion.CENTER: CanvasTextAlign get() =
    "center".asDynamic().unsafeCast<CanvasTextAlign>()
/* please, don't implement this interface!
*/
@JsName("null")
@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")
public
external
interface CanvasTextBaseline {
    companion object
}
public inline val CanvasTextBaseline.Companion.TOP:
CanvasTextBaseline get() = "top".asDynamic().unsafeCast<CanvasTextBaseline>()
public inline val
CanvasTextBaseline.Companion.HANGING: CanvasTextBaseline get() =
    "hanging".asDynamic().unsafeCast<CanvasTextBaseline>()
public inline val
CanvasTextBaseline.Companion.MIDDLE:
CanvasTextBaseline get() = "middle".asDynamic().unsafeCast<CanvasTextBaseline>()
public inline val
CanvasTextBaseline.Companion.ALPHABETIC: CanvasTextBaseline get() =
    "alphabetic".asDynamic().unsafeCast<CanvasTextBaseline>()
public inline val
CanvasTextBaseline.Companion.IDEOGRAPHIC: CanvasTextBaseline get() =
    "ideographic".asDynamic().unsafeCast<CanvasTextBaseline>()
public inline val
CanvasTextBaseline.Companion.BOTTOM: CanvasTextBaseline get() =

```

```

\"bottom\".asDynamic().unsafeCast<CanvasTextBaseline>()\n\n/* please, don't implement this interface!
*\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface CanvasDirection {\n  companion object\n}\n\npublic inline val CanvasDirection.Companion.LTR:
CanvasDirection get() = \"ltr\".asDynamic().unsafeCast<CanvasDirection>()\n\npublic inline val
CanvasDirection.Companion.RTL: CanvasDirection get() =
\"rtl\".asDynamic().unsafeCast<CanvasDirection>()\n\npublic inline val CanvasDirection.Companion.INHERIT:
CanvasDirection get() = \"inherit\".asDynamic().unsafeCast<CanvasDirection>()\n\n/* please, don't implement this
interface! *\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic
external interface ScrollRestoration {\n  companion object\n}\n\npublic inline val
ScrollRestoration.Companion.AUTO: ScrollRestoration get() =
\"auto\".asDynamic().unsafeCast<ScrollRestoration>()\n\npublic inline val
ScrollRestoration.Companion.MANUAL: ScrollRestoration get() =
\"manual\".asDynamic().unsafeCast<ScrollRestoration>()\n\n/* please, don't implement this interface!
*\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface ImageOrientation {\n  companion object\n}\n\npublic inline val ImageOrientation.Companion.NONE:
ImageOrientation get() = \"none\".asDynamic().unsafeCast<ImageOrientation>()\n\npublic inline val
ImageOrientation.Companion.FLIPY: ImageOrientation get() =
\"flipY\".asDynamic().unsafeCast<ImageOrientation>()\n\n/*
please, don't implement this interface!
*\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface PremultiplyAlpha {\n  companion object\n}\n\npublic inline val PremultiplyAlpha.Companion.NONE:
PremultiplyAlpha get() = \"none\".asDynamic().unsafeCast<PremultiplyAlpha>()\n\npublic inline val
PremultiplyAlpha.Companion.PREMULTIPLY: PremultiplyAlpha get() =
\"premultiply\".asDynamic().unsafeCast<PremultiplyAlpha>()\n\npublic inline val
PremultiplyAlpha.Companion.DEFAULT: PremultiplyAlpha get() =
\"default\".asDynamic().unsafeCast<PremultiplyAlpha>()\n\n/* please, don't implement this interface!
*\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface ColorSpaceConversion {\n  companion object\n}\n\npublic inline val
ColorSpaceConversion.Companion.NONE: ColorSpaceConversion get() =
\"none\".asDynamic().unsafeCast<ColorSpaceConversion>()\n\npublic inline val
ColorSpaceConversion.Companion.DEFAULT:
ColorSpaceConversion get() = \"default\".asDynamic().unsafeCast<ColorSpaceConversion>()\n\n/* please, don't
implement this interface!
*\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface ResizeQuality {\n  companion object\n}\n\npublic inline val ResizeQuality.Companion.PIXELATED:
ResizeQuality get() = \"pixelated\".asDynamic().unsafeCast<ResizeQuality>()\n\npublic inline val
ResizeQuality.Companion.LOW: ResizeQuality get() =
\"low\".asDynamic().unsafeCast<ResizeQuality>()\n\npublic inline val ResizeQuality.Companion.MEDIUM:
ResizeQuality get() = \"medium\".asDynamic().unsafeCast<ResizeQuality>()\n\npublic inline val
ResizeQuality.Companion.HIGH: ResizeQuality get() = \"high\".asDynamic().unsafeCast<ResizeQuality>()\n\n/*
please, don't implement this interface!
*\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface BinaryType {\n  companion object\n}\n\npublic inline
val BinaryType.Companion.BLOB: BinaryType get() = \"blob\".asDynamic().unsafeCast<BinaryType>()\n\npublic
inline val BinaryType.Companion.ARRAYBUFFER: BinaryType get() =
\"arraybuffer\".asDynamic().unsafeCast<BinaryType>()\n\n/* please, don't implement this interface!
*\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface WorkerType {\n  companion object\n}\n\npublic inline val WorkerType.Companion.CLASSIC:

```

```

WorkerType get() = \"classic\".asDynamic().unsafeCast<WorkerType>()\n\npublic inline val
WorkerType.Companion.MODULE: WorkerType get() =
\"module\".asDynamic().unsafeCast<WorkerType>()\n\n/* please, don't implement this interface!
*\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface ShadowRootMode {\n  companion object\n}\n\npublic inline val ShadowRootMode.Companion.OPEN:
ShadowRootMode get() = \"open\".asDynamic().unsafeCast<ShadowRootMode>()\n\npublic inline val
ShadowRootMode.Companion.CLOSED:
ShadowRootMode get() = \"closed\".asDynamic().unsafeCast<ShadowRootMode>()\n\n/* please, don't implement
this interface! *\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic
external interface ScrollBehavior {\n  companion object\n}\n\npublic inline val ScrollBehavior.Companion.AUTO:
ScrollBehavior get() = \"auto\".asDynamic().unsafeCast<ScrollBehavior>()\n\npublic inline val
ScrollBehavior.Companion.INSTANT: ScrollBehavior get() =
\"instant\".asDynamic().unsafeCast<ScrollBehavior>()\n\npublic inline val ScrollBehavior.Companion.SMOOTH:
ScrollBehavior get() = \"smooth\".asDynamic().unsafeCast<ScrollBehavior>()\n\n/* please, don't implement this
interface! *\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic
external interface ScrollLogicalPosition {\n  companion object\n}\n\npublic inline val
ScrollLogicalPosition.Companion.START: ScrollLogicalPosition get() =
\"start\".asDynamic().unsafeCast<ScrollLogicalPosition>()\n\npublic
inline val ScrollLogicalPosition.Companion.CENTER: ScrollLogicalPosition get() =
\"center\".asDynamic().unsafeCast<ScrollLogicalPosition>()\n\npublic inline val
ScrollLogicalPosition.Companion.END: ScrollLogicalPosition get() =
\"end\".asDynamic().unsafeCast<ScrollLogicalPosition>()\n\npublic inline val
ScrollLogicalPosition.Companion.NEAREST: ScrollLogicalPosition get() =
\"nearest\".asDynamic().unsafeCast<ScrollLogicalPosition>()\n\n/* please, don't implement this interface!
*\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface CSSBoxType {\n  companion object\n}\n\npublic inline val CSSBoxType.Companion.MARGIN:
CSSBoxType get() = \"margin\".asDynamic().unsafeCast<CSSBoxType>()\n\npublic inline val
CSSBoxType.Companion.BORDER: CSSBoxType get() =
\"border\".asDynamic().unsafeCast<CSSBoxType>()\n\npublic inline val CSSBoxType.Companion.PADDING:
CSSBoxType get() = \"padding\".asDynamic().unsafeCast<CSSBoxType>()\n\npublic inline
val CSSBoxType.Companion.CONTENT: CSSBoxType get() =
\"content\".asDynamic().unsafeCast<CSSBoxType>()\"/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n *\n@n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n//
See github.com/kotlin/dukat for details\n\npackage org.w3c.fetch\n\nimport kotlin.js.*\nimport
org.khronos.webgl.*\nimport org.w3c.files.*\nimport org.w3c.xhr.*\n\n/**\n * Exposes the JavaScript
[Headers](https://developer.mozilla.org/en/docs/Web/API/Headers) to Kotlin\n *\npublic external open class
Headers(init: dynamic = definedExternally) {\n  fun append(name: String, value: String)\n  fun delete(name:
String)\n  fun get(name: String): String?\n  fun has(name: String): Boolean\n  fun set(name: String, value:
String)\n}\n\n/**\n * Exposes the JavaScript [Body](https://developer.mozilla.org/en/docs/Web/API/Body)
to Kotlin\n *\npublic external interface Body {\n  val bodyUsed: Boolean\n  fun ArrayBuffer():
Promise<ArrayBuffer>\n  fun blob(): Promise<Blob>\n  fun formData(): Promise<FormData>\n  fun json():
Promise<Any?>\n  fun text(): Promise<String>\n}\n\n/**\n * Exposes the JavaScript
[Request](https://developer.mozilla.org/en/docs/Web/API/Request) to Kotlin\n *\npublic external open class
Request(input: dynamic, init: RequestInit = definedExternally) : Body {\n  open val method: String\n  open val
url: String\n  open val headers: Headers\n  open val type: RequestType\n  open val destination:
RequestDestination\n  open val referrer: String\n  open val referrerPolicy: dynamic\n  open val mode:
RequestMode\n  open val credentials: RequestCredentials\n  open val cache: RequestCache\n  open val redirect:

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RequestRedirect\n  open val integrity: String\n  open val keepalive: Boolean\n  override val bodyUsed:
Boolean\n  fun clone(): Request\n  override
  fun arrayBuffer(): Promise<ArrayBuffer>\n  override fun blob(): Promise<Blob>\n  override fun formData():
Promise<FormData>\n  override fun json(): Promise<Any?>\n  override fun text(): Promise<String>\n}\n\npublic
external interface RequestInit {\n  var method: String?\n  get() = definedExternally\n  set(value) =
definedExternally\n  var headers: dynamic\n  get() = definedExternally\n  set(value) = definedExternally\n
var body: dynamic\n  get() = definedExternally\n  set(value) = definedExternally\n  var referrer: String?\n
  get() = definedExternally\n  set(value) = definedExternally\n  var referrerPolicy: dynamic\n  get() =
definedExternally\n  set(value) = definedExternally\n  var mode: RequestMode?\n  get() =
definedExternally\n  set(value) = definedExternally\n  var credentials: RequestCredentials?\n  get() =
definedExternally\n  set(value) = definedExternally\n  var
  cache: RequestCache?\n  get() = definedExternally\n  set(value) = definedExternally\n  var redirect:
RequestRedirect?\n  get() = definedExternally\n  set(value) = definedExternally\n  var integrity: String?\n
  get() = definedExternally\n  set(value) = definedExternally\n  var keepalive: Boolean?\n  get() =
definedExternally\n  set(value) = definedExternally\n  var window: Any?\n  get() = definedExternally\n
set(value) = definedExternally}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun RequestInit(method: String? =
undefined, headers: dynamic = undefined, body: dynamic = undefined, referrer: String? = undefined, referrerPolicy:
dynamic = undefined, mode: RequestMode? = undefined, credentials: RequestCredentials? = undefined, cache:
RequestCache? = undefined, redirect: RequestRedirect? = undefined, integrity: String? = undefined, keepalive:
Boolean? = undefined,
window: Any? = undefined): RequestInit {\n  val o = js("({})")\n  o["method"] = method\n  o["headers"] =
headers\n  o["body"] = body\n  o["referrer"] = referrer\n  o["referrerPolicy"] = referrerPolicy\n
o["mode"] = mode\n  o["credentials"] = credentials\n  o["cache"] = cache\n  o["redirect"] = redirect\n
o["integrity"] = integrity\n  o["keepalive"] = keepalive\n  o["window"] = window\n  return o\n}\n\n/**\n *
Exposes the JavaScript [Response](https://developer.mozilla.org/en/docs/Web/API/Response) to Kotlin\n */\npublic
external open class Response(body: dynamic = definedExternally, init: ResponseInit = definedExternally) : Body
{\n  open val type: ResponseType\n  open val url: String\n  open val redirected: Boolean\n  open val status:
Short\n  open val ok: Boolean\n  open val statusText: String\n  open val headers: Headers\n  open val body:
dynamic\n  open val trailer: Promise<Headers>\n  override val bodyUsed:
Boolean\n  fun clone(): Response\n  override fun arrayBuffer(): Promise<ArrayBuffer>\n  override fun blob():
Promise<Blob>\n  override fun formData(): Promise<FormData>\n  override fun json(): Promise<Any?>\n
override fun text(): Promise<String>\n\n  companion object {\n    fun error(): Response\n    fun redirect(url:
String, status: Short = definedExternally): Response\n  }\n}\n\npublic external interface ResponseInit {\n  var
status: Short? /* = 200 */\n  get() = definedExternally\n  set(value) = definedExternally\n  var statusText:
String? /* = "OK" */\n  get() = definedExternally\n  set(value) = definedExternally\n  var headers:
dynamic\n  get() = definedExternally\n  set(value) =
definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun ResponseInit(status: Short? = 200,
statusText: String? = "OK", headers: dynamic = undefined): ResponseInit
{\n  val o = js("({})")\n  o["status"] = status\n  o["statusText"] = statusText\n  o["headers"] = headers\n
return o\n}\n\n/* please, don't implement this interface!\n */\n@JsName("null")\n@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")\npublic external
interface RequestType {\n  companion object\n}\n\npublic inline val RequestType.Companion.EMPTY:
RequestType get() = ""\n\npublic inline val
RequestType.Companion.AUDIO: RequestType get() =
"audio"\n\npublic inline val RequestType.Companion.FONT:
RequestType get() = "font"\n\npublic inline val

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RequestType.Companion.IMAGE: RequestType get() =
    \"image\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val RequestType.Companion.SCRIPT:
RequestType get() = \"script\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val
RequestType.Companion.STYLE: RequestType get() =
    \"style\".asDynamic().unsafeCast<RequestType>()\n\npublic
    inline val RequestType.Companion.TRACK: RequestType get() =
    \"track\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val RequestType.Companion.VIDEO:
RequestType get() = \"video\".asDynamic().unsafeCast<RequestType>()\n\n/* please, don't implement this
interface! *\n\n@JsName(\"null\")\n\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic
external interface RequestDestination {\n    companion object\n}\n\npublic inline val
RequestDestination.Companion.EMPTY: RequestDestination get() =
    \"\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.DOCUMENT: RequestDestination get() =
    \"document\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.EMBED: RequestDestination get() =
    \"embed\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.FONT: RequestDestination get() =
    \"font\".asDynamic().unsafeCast<RequestDestination>()\n\npublic
    inline val RequestDestination.Companion.IMAGE: RequestDestination get() =
    \"image\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.MANIFEST: RequestDestination get() =
    \"manifest\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.MEDIA: RequestDestination get() =
    \"media\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.OBJECT: RequestDestination get() =
    \"object\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.REPORT: RequestDestination get() =
    \"report\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.SCRIPT: RequestDestination get() =
    \"script\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.SERVICEWORKER: RequestDestination get() =
    \"serviceworker\".asDynamic().unsafeCast<RequestDestination>()\n\npublic
    inline val RequestDestination.Companion.SHAREDWORKER: RequestDestination get() =
    \"sharedworker\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.STYLE: RequestDestination get() =
    \"style\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.WORKER: RequestDestination get() =
    \"worker\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.XSLT: RequestDestination get() =
    \"xslt\".asDynamic().unsafeCast<RequestDestination>()\n\n/* please, don't implement this interface!
*\n\n@JsName(\"null\")\n\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic external
interface RequestMode {\n    companion object\n}\n\npublic inline val RequestMode.Companion.NAVIGATE:
RequestMode get() = \"navigate\".asDynamic().unsafeCast<RequestMode>()\n\npublic inline val
RequestMode.Companion.SAME_ORIGIN: RequestMode get() = \"same-
origin\".asDynamic().unsafeCast<RequestMode>()\n\npublic
    inline val RequestMode.Companion.NO_CORS: RequestMode get() = \"no-
cors\".asDynamic().unsafeCast<RequestMode>()\n\npublic inline val RequestMode.Companion.CORS:
RequestMode get() = \"cors\".asDynamic().unsafeCast<RequestMode>()\n\n/* please, don't implement this

```



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interface! *\/n@JsName("null")n@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")npublic
external interface RequestCredentials {n  companion objectn}n\npublic inline val
RequestCredentials.Companion.OMIT: RequestCredentials get() =
"omit".asDynamic().unsafeCast<RequestCredentials>()n\npublic inline val
RequestCredentials.Companion.SAME_ORIGIN: RequestCredentials get() = "same-
origin".asDynamic().unsafeCast<RequestCredentials>()n\npublic inline val
RequestCredentials.Companion.INCLUDE: RequestCredentials get() =
"include".asDynamic().unsafeCast<RequestCredentials>()n\n/* please, don't implement this interface!
*\/n@JsName("null")n@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")npublic
external interface RequestCache {n  companion objectn}n\npublic inline val
RequestCache.Companion.DEFAULT: RequestCache get() =
"default".asDynamic().unsafeCast<RequestCache>()n\npublic inline val RequestCache.Companion.NO_STORE:
RequestCache get() = "no-store".asDynamic().unsafeCast<RequestCache>()n\npublic inline val
RequestCache.Companion.RELOAD: RequestCache get() =
"reload".asDynamic().unsafeCast<RequestCache>()n\npublic inline val RequestCache.Companion.NO_CACHE:
RequestCache get() = "no-cache".asDynamic().unsafeCast<RequestCache>()n\npublic inline val
RequestCache.Companion.FORCE_CACHE: RequestCache get() = "force-
cache".asDynamic().unsafeCast<RequestCache>()n\npublic inline val
RequestCache.Companion.ONLY_IF_CACHED: RequestCache get() = "only-if-
cached".asDynamic().unsafeCast<RequestCache>()n\n/* please, don't implement this interface!
*\/n@JsName("null")n@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")npublic external
interface RequestRedirect
{n  companion objectn}n\npublic inline val RequestRedirect.Companion.FOLLOW: RequestRedirect get() =
"follow".asDynamic().unsafeCast<RequestRedirect>()n\npublic inline val RequestRedirect.Companion.ERROR:
RequestRedirect get() = "error".asDynamic().unsafeCast<RequestRedirect>()n\npublic inline val
RequestRedirect.Companion.MANUAL: RequestRedirect get() =
"manual".asDynamic().unsafeCast<RequestRedirect>()n\n/* please, don't implement this interface!
*\/n@JsName("null")n@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")npublic external
interface ResponseType {n  companion objectn}n\npublic inline val ResponseType.Companion.BASIC:
ResponseType get() = "basic".asDynamic().unsafeCast<ResponseType>()n\npublic inline val
ResponseType.Companion.CORS: ResponseType get() =
"cors".asDynamic().unsafeCast<ResponseType>()n\npublic inline val ResponseType.Companion.DEFAULT:
ResponseType get() = "default".asDynamic().unsafeCast<ResponseType>()n\npublic inline
val ResponseType.Companion.ERROR: ResponseType get() =
"error".asDynamic().unsafeCast<ResponseType>()n\npublic inline val ResponseType.Companion.OPAQUE:
ResponseType get() = "opaque".asDynamic().unsafeCast<ResponseType>()n\npublic inline val
ResponseType.Companion.OPAQUEREDIRECT: ResponseType get() =
"opaqueredirect".asDynamic().unsafeCast<ResponseType>()n\n/*n * Copyright 2010-2021 JetBrains s.r.o. and
Kotlin Programming Language contributors.n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.n *\/n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT
EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.mediacapture\n\nimport
kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\n\n/* Exposes
the JavaScript [MediaStream](https://developer.mozilla.org/en/docs/Web/API/MediaStream) to Kotlin\n\n*/n\npublic
external open class MediaStream() : EventTarget, MediaProvider
{n  constructor(stream: MediaStream)n  constructor(tracks: Array<MediaStreamTrack>)\n  open val id:
String\n  open val active: Boolean\n  var onaddtrack: ((MediaStreamTrackEvent) -> dynamic)?\n  var
onremovetrack: ((MediaStreamTrackEvent) -> dynamic)?\n  fun getAudioTracks(): Array<MediaStreamTrack>\n  fun
getVideoTracks(): Array<MediaStreamTrack>\n  fun getTracks(): Array<MediaStreamTrack>\n  fun

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getTrackById(trackId: String): MediaStreamTrack?
fun addTrack(track: MediaStreamTrack)
fun removeTrack(track: MediaStreamTrack)
fun clone(): MediaStreamTrack
}

/** Exposes the JavaScript [MediaStreamTrack](https://developer.mozilla.org/en/docs/Web/API/MediaStreamTrack) to Kotlin */
public external abstract class MediaStreamTrack : EventTarget {
    open val kind: String
    open val id: String
    open val label: String
    open var enabled: Boolean
    open val muted: Boolean
    open var onmute: ((Event) -> dynamic)?
    open var onunmute: ((Event) -> dynamic)?
    open val readyState: MediaStreamTrackState
    open var onended: ((Event) -> dynamic)?
    open var onoverconstrained: ((Event) -> dynamic)?
    fun clone(): MediaStreamTrack
    fun stop()
    fun getCapabilities(): MediaTrackCapabilities
    fun getConstraints(): MediaTrackConstraints
    fun getSettings(): MediaTrackSettings
    fun applyConstraints(constraints: MediaTrackConstraints = definedExternally): Promise<Unit>
}

/** Exposes the JavaScript [MediaTrackSupportedConstraints](https://developer.mozilla.org/en/docs/Web/API/MediaTrackSupportedConstraints) to Kotlin */
public external interface MediaTrackSupportedConstraints {
    var width: Boolean? /* = true */
    fun get() = definedExternally
    set(value) = definedExternally
    var height: Boolean? /* = true */
    fun get() = definedExternally
    set(value) = definedExternally
    var aspectRatio: Boolean? /* = true */
    fun get() = definedExternally
    set(value) = definedExternally
    var frameRate: Boolean? /* = true */
    fun get() = definedExternally
    set(value) = definedExternally
    var facingMode: Boolean? /* = true */
    fun get() = definedExternally
    set(value) = definedExternally
    var resizeMode: Boolean? /* = true */
    fun get() = definedExternally
    set(value) = definedExternally
    var volume: Boolean? /* = true */
    fun get() = definedExternally
    set(value) = definedExternally
    var sampleRate: Boolean? /* = true */
    fun get() = definedExternally
    set(value) = definedExternally
    var sampleSize: Boolean? /* = true */
    fun get() = definedExternally
    set(value) = definedExternally
    var echoCancellation: Boolean? /* = true */
    fun get() = definedExternally
    set(value) = definedExternally
    var autoGainControl: Boolean? /* = true */
    fun get() = definedExternally
    set(value) = definedExternally
    var noiseSuppression: Boolean? /* = true */
    fun get() = definedExternally
    set(value) = definedExternally
    var latency: Boolean? /* = true */
    fun get() = definedExternally
    set(value) = definedExternally
    var channelCount: Boolean? /* = true */
    fun get() = definedExternally
    set(value) = definedExternally
    var deviceId: Boolean? /* = true */
    fun get() = definedExternally
    set(value) = definedExternally
    var groupId: Boolean? /* = true */
    fun get() = definedExternally
    set(value) = definedExternally
}

@Suppress("INVISIBLE_REFERENCE", "INVISIBLE_MEMBER")
@kotlin.internal.InlineOnly
public inline fun MediaTrackSupportedConstraints(width: Boolean? = true, height: Boolean? = true, aspectRatio: Boolean? = true, frameRate: Boolean? = true, facingMode: Boolean? = true, resizeMode: Boolean? = true, volume: Boolean? = true, sampleRate: Boolean? = true, sampleSize: Boolean? = true, echoCancellation: Boolean? = true, autoGainControl: Boolean? = true, noiseSuppression: Boolean? = true, latency: Boolean? = true, channelCount: Boolean? = true, deviceId: Boolean? = true, groupId: Boolean? = true): MediaTrackSupportedConstraints {
    val o = js("{}")
    o["width"] = width
    o["height"] = height
    o["aspectRatio"] = aspectRatio
    o["frameRate"] = frameRate
    o["facingMode"] = facingMode
    o["resizeMode"] = resizeMode
    o["volume"] = volume
    o["sampleRate"] = sampleRate
    o["sampleSize"] = sampleSize
    o["echoCancellation"] = echoCancellation
    o["autoGainControl"] = autoGainControl
    o["noiseSuppression"] = noiseSuppression
    o["latency"] = latency
    o["channelCount"] = channelCount
    o["deviceId"] = deviceId
    o["groupId"] = groupId
    return o
}

public external interface MediaTrackCapabilities {
    var width: ULongRange?
    fun get() = definedExternally
    set(value) = definedExternally
    var height: ULongRange?
    fun get() = definedExternally
    set(value) = definedExternally
    var aspectRatio: DoubleRange?
    fun get() = definedExternally
    set(value) = definedExternally
    var frameRate: DoubleRange?
    fun get() = definedExternally
    set(value) = definedExternally
    var facingMode:

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Array<String>? \n    get() = definedExternally \n    set(value) = definedExternally \n    var resizeMode:
Array<String>? \n    get() = definedExternally \n    set(value) = definedExternally \n    var volume:
DoubleRange? \n    get() = definedExternally \n    set(value) = definedExternally \n    var sampleRate:
ULongRange? \n    get() = definedExternally \n    set(value) = definedExternally \n    var sampleSize:
ULongRange? \n    get() = definedExternally \n    set(value) = definedExternally \n    var echoCancellation:
Array<Boolean>? \n    get() = definedExternally \n    set(value) = definedExternally \n    var autoGainControl:
Array<Boolean>? \n
    get() = definedExternally \n    set(value) = definedExternally \n    var noiseSuppression: Array<Boolean>? \n
    get() = definedExternally \n    set(value) = definedExternally \n    var latency: DoubleRange? \n    get() =
definedExternally \n    set(value) = definedExternally \n    var channelCount: ULongRange? \n    get() =
definedExternally \n    set(value) = definedExternally \n    var deviceId: String? \n    get() = definedExternally \n
    set(value) = definedExternally \n    var groupId: String? \n    get() = definedExternally \n    set(value) =
definedExternally \n} \n \n @Suppress(\ "INVISIBLE_REFERENCE",
\ "INVISIBLE_MEMBER") \n @kotlin.internal.InlineOnly \n public inline fun MediaTrackCapabilities(width:
ULongRange? = undefined, height: ULongRange? = undefined, aspectRatio: DoubleRange? = undefined,
frameRate: DoubleRange? = undefined, facingMode: Array<String>? = undefined, resizeMode: Array<String>? =
undefined, volume: DoubleRange?
= undefined, sampleRate: ULongRange? = undefined, sampleSize: ULongRange? = undefined, echoCancellation:
Array<Boolean>? = undefined, autoGainControl: Array<Boolean>? = undefined, noiseSuppression:
Array<Boolean>? = undefined, latency: DoubleRange? = undefined, channelCount: ULongRange? = undefined,
deviceId: String? = undefined, groupId: String? = undefined): MediaTrackCapabilities { \n    val o = js(\ "({})") \n
o[\ "width"] = width \n    o[\ "height"] = height \n    o[\ "aspectRatio"] = aspectRatio \n    o[\ "frameRate"] =
frameRate \n    o[\ "facingMode"] = facingMode \n    o[\ "resizeMode"] = resizeMode \n    o[\ "volume"] = volume \n
o[\ "sampleRate"] = sampleRate \n    o[\ "sampleSize"] = sampleSize \n    o[\ "echoCancellation"] =
echoCancellation \n    o[\ "autoGainControl"] = autoGainControl \n    o[\ "noiseSuppression"] = noiseSuppression \n
o[\ "latency"] = latency \n    o[\ "channelCount"] = channelCount \n    o[\ "deviceId"] = deviceId \n    o[\ "groupId"] =
groupId \n    return o \n} \n \n /** \n
* Exposes the JavaScript
[MediaTrackConstraints](https://developer.mozilla.org/en/docs/Web/API/MediaTrackConstraints) to Kotlin \n
*/ \n public external interface MediaTrackConstraints : MediaTrackConstraintSet { \n    var advanced:
Array<MediaTrackConstraintSet>? \n    get() = definedExternally \n    set(value) =
definedExternally \n} \n \n @Suppress(\ "INVISIBLE_REFERENCE",
\ "INVISIBLE_MEMBER") \n @kotlin.internal.InlineOnly \n public inline fun MediaTrackConstraints(advanced:
Array<MediaTrackConstraintSet>? = undefined, width: dynamic = undefined, height: dynamic = undefined,
aspectRatio: dynamic = undefined, frameRate: dynamic = undefined, facingMode: dynamic = undefined,
resizeMode: dynamic = undefined, volume: dynamic = undefined, sampleRate: dynamic = undefined, sampleSize:
dynamic = undefined, echoCancellation: dynamic = undefined, autoGainControl: dynamic = undefined,
noiseSuppression: dynamic = undefined, latency: dynamic = undefined, channelCount: dynamic = undefined,
deviceId: dynamic = undefined, groupId: dynamic = undefined): MediaTrackConstraints { \n    val o = js(\ "({})") \n
o[\ "advanced"] = advanced \n    o[\ "width"] = width \n    o[\ "height"] = height \n    o[\ "aspectRatio"] =
aspectRatio \n    o[\ "frameRate"] = frameRate \n    o[\ "facingMode"] = facingMode \n    o[\ "resizeMode"] =
resizeMode \n    o[\ "volume"] = volume \n    o[\ "sampleRate"] = sampleRate \n    o[\ "sampleSize"] = sampleSize \n
o[\ "echoCancellation"] = echoCancellation \n    o[\ "autoGainControl"] = autoGainControl \n
o[\ "noiseSuppression"] = noiseSuppression \n    o[\ "latency"] = latency \n    o[\ "channelCount"] = channelCount \n
o[\ "deviceId"] = deviceId \n    o[\ "groupId"] = groupId \n    return o \n} \n \n public external interface
MediaTrackConstraintSet { \n    var width: dynamic \n    get() = definedExternally \n    set(value) =
definedExternally \n    var height: dynamic \n    get() = definedExternally \n    set(value) = definedExternally \n
var aspectRatio:

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dynamic\n    get() = definedExternally\n    set(value) = definedExternally\n    var frameRate: dynamic\n
get() = definedExternally\n    set(value) = definedExternally\n    var facingMode: dynamic\n    get() =
definedExternally\n    set(value) = definedExternally\n    var resizeMode: dynamic\n    get() =
definedExternally\n    set(value) = definedExternally\n    var volume: dynamic\n    get() = definedExternally\n
    set(value) = definedExternally\n    var sampleRate: dynamic\n    get() = definedExternally\n    set(value) =
definedExternally\n    var sampleSize: dynamic\n    get() = definedExternally\n    set(value) =
definedExternally\n    var echoCancellation: dynamic\n    get() = definedExternally\n    set(value) =
definedExternally\n    var autoGainControl: dynamic\n    get() = definedExternally\n    set(value) =
definedExternally\n    var noiseSuppression: dynamic\n    get() = definedExternally\n
    set(value) = definedExternally\n    var latency: dynamic\n    get() = definedExternally\n    set(value) =
definedExternally\n    var channelCount: dynamic\n    get() = definedExternally\n    set(value) =
definedExternally\n    var deviceId: dynamic\n    get() = definedExternally\n    set(value) = definedExternally\n
    var groupId: dynamic\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun MediaTrackConstraintSet(width:
dynamic = undefined, height: dynamic = undefined, aspectRatio: dynamic = undefined, frameRate: dynamic =
undefined, facingMode: dynamic = undefined, resizeMode: dynamic = undefined, volume: dynamic = undefined,
sampleRate: dynamic = undefined, sampleSize: dynamic = undefined, echoCancellation: dynamic = undefined,
autoGainControl: dynamic = undefined, noiseSuppression: dynamic = undefined, latency: dynamic
= undefined, channelCount: dynamic = undefined, deviceId: dynamic = undefined, groupId: dynamic = undefined):
MediaTrackConstraintSet {\n    val o = js(\"({})\")\n    o[\"width\"] = width\n    o[\"height\"] = height\n
o[\"aspectRatio\"] = aspectRatio\n    o[\"frameRate\"] = frameRate\n    o[\"facingMode\"] = facingMode\n
o[\"resizeMode\"] = resizeMode\n    o[\"volume\"] = volume\n    o[\"sampleRate\"] = sampleRate\n
o[\"sampleSize\"] = sampleSize\n    o[\"echoCancellation\"] = echoCancellation\n    o[\"autoGainControl\"] =
autoGainControl\n    o[\"noiseSuppression\"] = noiseSuppression\n    o[\"latency\"] = latency\n
o[\"channelCount\"] = channelCount\n    o[\"deviceId\"] = deviceId\n    o[\"groupId\"] = groupId\n    return
o\n}\n\n/**\n * Exposes the JavaScript
[MediaTrackSettings](https://developer.mozilla.org/en/docs/Web/API/MediaTrackSettings) to Kotlin\n */\n\npublic
external interface MediaTrackSettings {\n    var width: Int?\n    get() = definedExternally\n
    set(value) = definedExternally\n    var height: Int?\n    get() = definedExternally\n    set(value) =
definedExternally\n    var aspectRatio: Double?\n    get() = definedExternally\n    set(value) =
definedExternally\n    var frameRate: Double?\n    get() = definedExternally\n    set(value) =
definedExternally\n    var facingMode: String?\n    get() = definedExternally\n    set(value) =
definedExternally\n    var resizeMode: String?\n    get() = definedExternally\n    set(value) =
definedExternally\n    var volume: Double?\n    get() = definedExternally\n    set(value) = definedExternally\n
    var sampleRate: Int?\n    get() = definedExternally\n    set(value) = definedExternally\n    var sampleSize:
Int?\n    get() = definedExternally\n    set(value) = definedExternally\n    var echoCancellation: Boolean?\n
get() = definedExternally\n    set(value) = definedExternally\n    var autoGainControl: Boolean?\n
    get() = definedExternally\n    set(value) = definedExternally\n    var noiseSuppression: Boolean?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var latency: Double?\n    get() = definedExternally\n
    set(value) = definedExternally\n    var channelCount: Int?\n    get() = definedExternally\n    set(value) =
definedExternally\n    var deviceId: String?\n    get() = definedExternally\n    set(value) = definedExternally\n
    var groupId: String?\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun MediaTrackSettings(width: Int? =
undefined, height: Int? = undefined, aspectRatio: Double? = undefined, frameRate: Double? = undefined,
facingMode: String? = undefined, resizeMode: String? = undefined, volume: Double? = undefined, sampleRate: Int?
= undefined, sampleSize: Int? = undefined, echoCancellation:

```

```

Boolean? = undefined, autoGainControl: Boolean? = undefined, noiseSuppression: Boolean? = undefined, latency:
Double? = undefined, channelCount: Int? = undefined, deviceId: String? = undefined, groupId: String? =
undefined): MediaTrackSettings {\n  val o = js("{}")\n  o["width"] = width\n  o["height"] = height\n
o["aspectRatio"] = aspectRatio\n  o["frameRate"] = frameRate\n  o["facingMode"] = facingMode\n
o["resizeMode"] = resizeMode\n  o["volume"] = volume\n  o["sampleRate"] = sampleRate\n
o["sampleSize"] = sampleSize\n  o["echoCancellation"] = echoCancellation\n  o["autoGainControl"] =
autoGainControl\n  o["noiseSuppression"] = noiseSuppression\n  o["latency"] = latency\n
o["channelCount"] = channelCount\n  o["deviceId"] = deviceId\n  o["groupId"] = groupId\n  return
o}\n\n/**\n * Exposes the JavaScript
[MediaStreamTrackEvent](https://developer.mozilla.org/en/docs/Web/API/MediaStreamTrackEvent) to Kotlin\n
*/\npublic external open class MediaStreamTrackEvent(type: String, eventInitDict: MediaStreamTrackEventInit) :
Event {\n  open val track: MediaStreamTrack\n\n  companion object {\n    val NONE: Short\n    val
CAPTURING_PHASE: Short\n    val AT_TARGET: Short\n    val BUBBLING_PHASE: Short\n
  }\n\n  public external interface MediaStreamTrackEventInit : EventInit {\n    var track:
MediaStreamTrack?\n  }\n\n  @Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n  @kotlin.internal.InlineOnly\n  public inline fun MediaStreamTrackEventInit(track:
MediaStreamTrack?, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false):
MediaStreamTrackEventInit {\n    val o = js("{}")\n    o["track"] = track\n    o["bubbles"] = bubbles\n
o["cancelable"] = cancelable\n    o["composed"] = composed\n    return o}\n\n  public external open class
OverconstrainedErrorEvent(type: String, eventInitDict: OverconstrainedErrorEventInit) : Event {\n
  open val error: dynamic\n\n  companion object {\n    val NONE: Short\n    val CAPTURING_PHASE:
Short\n    val AT_TARGET: Short\n    val BUBBLING_PHASE: Short\n  }\n\n  public external interface
OverconstrainedErrorEventInit : EventInit {\n    var error: dynamic /* = null */\n    get() = definedExternally\n
set(value) = definedExternally\n  }\n\n  @Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n  @kotlin.internal.InlineOnly\n  public inline fun OverconstrainedErrorEventInit(error:
dynamic = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false):
OverconstrainedErrorEventInit {\n    val o = js("{}")\n    o["error"] = error\n    o["bubbles"] = bubbles\n
o["cancelable"] = cancelable\n    o["composed"] = composed\n    return o}\n\n  /**\n * Exposes the JavaScript
[MediaDevices](https://developer.mozilla.org/en/docs/Web/API/MediaDevices) to Kotlin\n
*/\npublic external
abstract class MediaDevices : EventTarget
{\n  open var onchange: ((Event) -> dynamic)?\n  fun enumerateDevices():
Promise<Array<MediaDeviceInfo>>\n  fun getSupportedConstraints(): MediaTrackSupportedConstraints\n  fun
getUserMedia(constraints: MediaStreamConstraints = definedExternally): Promise<MediaStream>\n}\n\n/**\n *
Exposes the JavaScript [MediaDeviceInfo](https://developer.mozilla.org/en/docs/Web/API/MediaDeviceInfo) to
Kotlin\n
*/\npublic external abstract class MediaDeviceInfo {\n  open val deviceId: String\n  open val kind:
MediaDeviceKind\n  open val label: String\n  open val groupId: String\n  fun toJSON(): dynamic\n}\n\npublic
external abstract class InputDeviceInfo : MediaDeviceInfo {\n  fun getCapabilities():
MediaTrackCapabilities\n}\n\n/**\n * Exposes the JavaScript
[MediaStreamConstraints](https://developer.mozilla.org/en/docs/Web/API/MediaStreamConstraints) to Kotlin\n
*/\npublic external interface MediaStreamConstraints {\n  var video: dynamic /* = false */\n  get()
= definedExternally\n  set(value) = definedExternally\n  var audio: dynamic /* = false */\n  get() =
definedExternally\n  set(value) = definedExternally\n}\n\n  @Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n  @kotlin.internal.InlineOnly\n  public inline fun MediaStreamConstraints(video:
dynamic = false, audio: dynamic = false): MediaStreamConstraints {\n    val o = js("{}")\n    o["video"] =
video\n    o["audio"] = audio\n    return o}\n\n  public external interface ConstrainingPattern {\n    var
onoverconstrained: ((Event) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n
fun getCapabilities(): Capabilities\n    fun getConstraints(): Constraints\n    fun getSettings(): Settings\n    fun
applyConstraints(constraints: Constraints = definedExternally): Promise<Unit>\n}\n\n  /**\n * Exposes the

```

JavaScript [DoubleRange](https://developer.mozilla.org/en/docs/Web/API/DoubleRange) to Kotlin\n \*^\\npublic external interface

```
DoubleRange {\n    var max: Double?\n        get() = definedExternally\n        set(value) = definedExternally\n    var min: Double?\n        get() = definedExternally\n        set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleRange(max: Double? = undefined, min: Double? = undefined): DoubleRange {\n    val o = js(\"({})\")\n    o[\"max\"] = max\n    o[\"min\"] = min\n    return o\n}\n\npublic external interface ConstrainDoubleRange : DoubleRange {\n    var exact: Double?\n        get() = definedExternally\n        set(value) = definedExternally\n    var ideal: Double?\n        get() = definedExternally\n        set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ConstrainDoubleRange(exact: Double? = undefined, ideal: Double? = undefined, max: Double? = undefined, min: Double? = undefined): ConstrainDoubleRange
```

```
{\n    val o = js(\"({})\")\n    o[\"exact\"] = exact\n    o[\"ideal\"] = ideal\n    o[\"max\"] = max\n    o[\"min\"] = min\n    return o\n}\n\npublic external interface ULongRange {\n    var max: Int?\n        get() = definedExternally\n        set(value) = definedExternally\n    var min: Int?\n        get() = definedExternally\n        set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ULongRange(max: Int? = undefined, min: Int? = undefined): ULongRange {\n    val o = js(\"({})\")\n    o[\"max\"] = max\n    o[\"min\"] = min\n    return o\n}\n\npublic external interface ConstrainULongRange : ULongRange {\n    var exact: Int?\n        get() = definedExternally\n        set(value) = definedExternally\n    var ideal: Int?\n        get() = definedExternally\n        set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic
```

```
inline fun ConstrainULongRange(exact: Int? = undefined, ideal: Int? = undefined, max: Int? = undefined, min: Int? = undefined): ConstrainULongRange {\n    val o = js(\"({})\")\n    o[\"exact\"] = exact\n    o[\"ideal\"] = ideal\n    o[\"max\"] = max\n    o[\"min\"] = min\n    return o\n}\n\n/**\n * Exposes the JavaScript
```

[ConstrainBooleanParameters](https://developer.mozilla.org/en/docs/Web/API/ConstrainBooleanParameters) to Kotlin\n \*^\\npublic external interface ConstrainBooleanParameters {\n var exact: Boolean?\n get() = definedExternally\n set(value) = definedExternally\n var ideal: Boolean?\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE\_REFERENCE\", \"INVISIBLE\_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ConstrainBooleanParameters(exact: Boolean? = undefined, ideal: Boolean? = undefined): ConstrainBooleanParameters {\n val o = js(\"({})\")\n o[\"exact\"] = exact\n o[\"ideal\"] = ideal\n return o\n}\n\n/\*\*\n \* Exposes the JavaScript

[ConstrainDOMStringParameters](https://developer.mozilla.org/en/docs/Web/API/ConstrainDOMStringParameters) to Kotlin\n \*^\\npublic external interface ConstrainDOMStringParameters {\n var exact: dynamic\n get() = definedExternally\n set(value) = definedExternally\n var ideal: dynamic\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE\_REFERENCE\", \"INVISIBLE\_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun

```
ConstrainDOMStringParameters(exact: dynamic = undefined, ideal: dynamic = undefined): ConstrainDOMStringParameters {\n    val o = js(\"({})\")\n    o[\"exact\"] = exact\n    o[\"ideal\"] = ideal\n    return o\n}\n\npublic external interface Capabilities\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun Capabilities(): Capabilities {\n    val o = js(\"({})\")\n    return o\n}\n\npublic external interface Settings\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun Settings(): Settings {\n    val o = js(\"({})\")\n    return o\n}\n\npublic external interface ConstraintSet\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ConstraintSet(): ConstraintSet {\n
```

```

val o = js("{}")\n    return o\n}\n\npublic external interface Constraints : ConstraintSet {\n    var advanced:
Array<ConstraintSet>?\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun Constraints(advanced:
Array<ConstraintSet>? = undefined): Constraints {\n    val o = js("{}")\n    o[\"advanced\"] = advanced\n    return o\n}\n\n/* please, don't implement this interface!
*\n\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface
    MediaStreamTrackState {\n    companion object\n}\n\npublic inline val MediaStreamTrackState.Companion.LIVE:
MediaStreamTrackState get() = \"live\".asDynamic().unsafeCast<MediaStreamTrackState>()\n\npublic inline val
MediaStreamTrackState.Companion.ENDED: MediaStreamTrackState get() =
\"ended\".asDynamic().unsafeCast<MediaStreamTrackState>()\n\n/* please, don't implement this interface!
*\n\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface VideoFacingModeEnum {\n    companion object\n}\n\npublic inline val
VideoFacingModeEnum.Companion.USER: VideoFacingModeEnum get() =
\"user\".asDynamic().unsafeCast<VideoFacingModeEnum>()\n\npublic inline val
VideoFacingModeEnum.Companion.ENVIRONMENT: VideoFacingModeEnum get() =
\"environment\".asDynamic().unsafeCast<VideoFacingModeEnum>()\n\npublic inline val
VideoFacingModeEnum.Companion.LEFT: VideoFacingModeEnum get() =
\"left\".asDynamic().unsafeCast<VideoFacingModeEnum>()\n\npublic inline val
VideoFacingModeEnum.Companion.RIGHT: VideoFacingModeEnum get() =
\"right\".asDynamic().unsafeCast<VideoFacingModeEnum>()\n\n/* please, don't implement this interface!
*\n\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface VideoResizeModeEnum {\n    companion object\n}\n\npublic inline val
VideoResizeModeEnum.Companion.NONE: VideoResizeModeEnum get() =
\"none\".asDynamic().unsafeCast<VideoResizeModeEnum>()\n\npublic inline val
VideoResizeModeEnum.Companion.CROP_AND_SCALE: VideoResizeModeEnum get() = \"crop-and-
scale\".asDynamic().unsafeCast<VideoResizeModeEnum>()\n\n/* please, don't implement this interface!
*\n\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface MediaDeviceKind {\n    companion object\n}\n\npublic inline val
MediaDeviceKind.Companion.AUDIOINPUT: MediaDeviceKind get() =
\"audioinput\".asDynamic().unsafeCast<MediaDeviceKind>()\n\npublic inline val
MediaDeviceKind.Companion.AUDIOOUTPUT:
    MediaDeviceKind get() = \"audiooutput\".asDynamic().unsafeCast<MediaDeviceKind>()\n\npublic inline val
MediaDeviceKind.Companion.VIDEOINPUT: MediaDeviceKind get() =
\"videoinput\".asDynamic().unsafeCast<MediaDeviceKind>())\n\n/*\n * Copyright 2010-2021 JetBrains s.r.o. and
Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\n *\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT
EDIT!\n\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.mediasource\n\nimport
kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\n\n/*\n * Exposes
the JavaScript [MediaSource](https://developer.mozilla.org/en/docs/Web/API/MediaSource) to Kotlin\n *\n\npublic
external open class MediaSource : EventTarget, MediaProvider {\n    open val sourceBuffers: SourceBufferList\n
open val activeSourceBuffers: SourceBufferList\n    open val readyState: ReadyState\n
    var duration: Double\n    var onsourceopen: ((Event) -> dynamic)?\n    var onsourceended: ((Event) ->
dynamic)?\n    var onsourceclose: ((Event) -> dynamic)?\n    fun addSourceBuffer(type: String): SourceBuffer\n
fun removeSourceBuffer(sourceBuffer: SourceBuffer)\n    fun endOfStream(error: EndOfStreamError =
definedExternally)\n    fun setLiveSeekableRange(start: Double, end: Double)\n    fun clearLiveSeekableRange()\n
    companion object {\n        fun isTypeSupported(type: String): Boolean\n    }\n}\n\n/*\n * Exposes the JavaScript

```

```

[SourceBuffer](https://developer.mozilla.org/en/docs/Web/API/SourceBuffer) to Kotlin\n *\n\npublic external
abstract class SourceBuffer : EventTarget {\n  open var mode: AppendMode\n  open val updating: Boolean\n
open val buffered: TimeRanges\n  open var timestampOffset: Double\n  open val audioTracks: AudioTrackList\n
open val videoTracks: VideoTrackList\n  open val textTracks: TextTrackList\n  open var appendWindowStart:
Double\n
  open var appendWindowEnd: Double\n  open var onupdatestart: ((Event) -> dynamic)?\n  open var onupdate:
((Event) -> dynamic)?\n  open var onupdateend: ((Event) -> dynamic)?\n  open var onerror: ((Event) ->
dynamic)?\n  open var onabort: ((Event) -> dynamic)?\n  fun appendBuffer(data: dynamic)\n  fun abort()\n  fun
remove(start: Double, end: Double)\n}\n\n/**\n * Exposes the JavaScript
[SourceBufferList](https://developer.mozilla.org/en/docs/Web/API/SourceBufferList) to Kotlin\n *\n\npublic
external abstract class SourceBufferList : EventTarget {\n  open val length: Int\n  open var onaddsourcebuffer:
((Event) -> dynamic)?\n  open var onremovesourcebuffer: ((Event) ->
dynamic)?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\n\npublic inline operator fun SourceBufferList.get(index:
Int): SourceBuffer? = asDynamic()[index]\n\n/* please, don't implement this interface!
*\n\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic
external interface ReadyState {\n  companion object\n}\n\n\npublic inline val ReadyState.Companion.CLOSED:
ReadyState get() = \"closed\".asDynamic().unsafeCast<ReadyState>()\n\n\npublic inline val
ReadyState.Companion.OPEN: ReadyState get() = \"open\".asDynamic().unsafeCast<ReadyState>()\n\n\npublic
inline val ReadyState.Companion.ENDED: ReadyState get() =
\"ended\".asDynamic().unsafeCast<ReadyState>()\n\n\n/* please, don't implement this interface!
*\n\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic external
interface EndOfStreamError {\n  companion object\n}\n\n\npublic inline val
EndOfStreamError.Companion.NETWORK: EndOfStreamError get() =
\"network\".asDynamic().unsafeCast<EndOfStreamError>()\n\n\npublic inline val
EndOfStreamError.Companion.DECODE: EndOfStreamError get() =
\"decode\".asDynamic().unsafeCast<EndOfStreamError>()\n\n\n/* please, don't implement this interface!
*\n\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic
external interface AppendMode {\n  companion object\n}\n\n\npublic inline val
AppendMode.Companion.SEGMENTS: AppendMode get() =
\"segments\".asDynamic().unsafeCast<AppendMode>()\n\n\npublic inline val
AppendMode.Companion.SEQUENCE: AppendMode get() =
\"sequence\".asDynamic().unsafeCast<AppendMode>(),\"/>\n\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n *\n\n@NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n\n@See
github.com/kotlin/dukat for details\n\npackage org.w3c.dom.pointerevents\n\nimport kotlin.js.*\nimport
org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\n\n\npublic external interface
PointerEventInit : MouseEventInit {\n  var pointerId: Int? /* = 0 */\n  get() = definedExternally\n
set(value) = definedExternally\n  var width: Double? /* = 1.0 */\n  get() = definedExternally\n
set(value) = definedExternally\n  var height: Double? /* = 1.0 */\n  get() = definedExternally\n
set(value) = definedExternally\n  var pressure: Float? /* = 0f */\n  get() = definedExternally\n
set(value) =
definedExternally\n  var tangentialPressure: Float? /* = 0f */\n  get() = definedExternally\n
set(value) =
definedExternally\n  var tiltX: Int? /* = 0 */\n  get() = definedExternally\n
set(value) = definedExternally\n
var tiltY: Int? /* = 0 */\n  get() = definedExternally\n
set(value) = definedExternally\n  var twist: Int? /* =
0 */\n  get() = definedExternally\n
set(value) = definedExternally\n  var pointerType: String? /* = \"\" */\n
get() = definedExternally\n
set(value) = definedExternally\n  var isPrimary: Boolean? /* = false */\n
get() = definedExternally\n
set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\n\npublic

```



```

inline fun PointerEventInit(pointerId: Int? = 0, width: Double? = 1.0, height: Double? = 1.0, pressure: Float? = 0f,
tangentialPressure: Float? = 0f, tiltX: Int? = 0, tiltY: Int? = 0, twist: Int? = 0, pointerType: String? = "", isPrimary:
Boolean? = false, screenX: Int? = 0, screenY: Int? = 0, clientX: Int? = 0, clientY: Int? = 0, button: Short? = 0,
buttons: Short? = 0, relatedTarget: EventTarget? = null, region: String? = null, ctrlKey: Boolean? = false, shiftKey:
Boolean? = false, altKey: Boolean? = false, metaKey: Boolean? = false, modifierAltGraph: Boolean? = false,
modifierCapsLock: Boolean? = false, modifierFn: Boolean? = false, modifierFnLock: Boolean? = false,
modifierHyper: Boolean? = false, modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? = false,
modifierSuper: Boolean? = false, modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false, view:
Window? = null, detail: Int? = 0, bubbles: Boolean?

```

```

= false, cancelable: Boolean? = false, composed: Boolean? = false): PointerEventInit {\n  val o = js("{}")\n
o["pointerId"] = pointerId\n  o["width"] = width\n  o["height"] = height\n  o["pressure"] = pressure\n
o["tangentialPressure"] = tangentialPressure\n  o["tiltX"] = tiltX\n  o["tiltY"] = tiltY\n  o["twist"] = twist\n
o["pointerType"] = pointerType\n  o["isPrimary"] = isPrimary\n  o["screenX"] = screenX\n  o["screenY"]
= screenY\n  o["clientX"] = clientX\n  o["clientY"] = clientY\n  o["button"] = button\n  o["buttons"] =
buttons\n  o["relatedTarget"] = relatedTarget\n  o["region"] = region\n  o["ctrlKey"] = ctrlKey\n
o["shiftKey"] = shiftKey\n  o["altKey"] = altKey\n  o["metaKey"] = metaKey\n  o["modifierAltGraph"] =
modifierAltGraph\n  o["modifierCapsLock"] = modifierCapsLock\n  o["modifierFn"] = modifierFn\n
o["modifierFnLock"] = modifierFnLock\n  o["modifierHyper"]
= modifierHyper\n  o["modifierNumLock"] = modifierNumLock\n  o["modifierScrollLock"] =
modifierScrollLock\n  o["modifierSuper"] = modifierSuper\n  o["modifierSymbol"] = modifierSymbol\n
o["modifierSymbolLock"] = modifierSymbolLock\n  o["view"] = view\n  o["detail"] = detail\n
o["bubbles"] = bubbles\n  o["cancelable"] = cancelable\n  o["composed"] = composed\n  return
o\n}\n\n/**\n * Exposes the JavaScript

```

```

[PointerEvent](https://developer.mozilla.org/en/docs/Web/API/PointerEvent) to Kotlin\n\npublic external open
class PointerEvent(type: String, eventInitDict: PointerEventInit = definedExternally) : MouseEvent {\n  open val
pointerId: Int\n  open val width: Double\n  open val height: Double\n  open val pressure: Float\n  open val
tangentialPressure: Float\n  open val tiltX: Int\n  open val tiltY: Int\n  open val twist: Int\n  open val
pointerType: String\n  open val isPrimary: Boolean\n\n  companion object {\n

```

```

    val NONE: Short\n    val CAPTURING_PHASE: Short\n    val AT_TARGET: Short\n    val
BUBBLING_PHASE: Short\n  }\n}"/**\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See
github.com/kotlin/dukat for details\n\npackage org.w3c.dom.svg\n\nimport kotlin.js.*\nimport
org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.css.*\n\n/**\n * Exposes the JavaScript

```

```

[SVGElement](https://developer.mozilla.org/en/docs/Web/API/SVGElement) to Kotlin\n\npublic external
abstract class SVGElement : Element, ElementCSSInlineStyle, GlobalEventHandlers, SVGElementInstance {\n
open val dataset: DOMStringMap\n  open val ownerSVGElement: SVGSVGElement?\n  open val
viewportElement: SVGElement?\n  open var tabIndex: Int\n  fun focus()\n  fun blur()\n\n

```

```

    companion object {\n    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val
TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE:
Short\n    val ENTITY_NODE: Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val
COMMENT_NODE: Short\n    val DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n
    val DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val

```

```

DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n  }\n}\n\npublic external interface
SVGBoundingBoxOptions {\n  var fill: Boolean? /* = true */\n  get() = definedExternally\n  set(value) =

```

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definedExternally\n    var stroke: Boolean? /* = false */\n        get()
= definedExternally\n        set(value) = definedExternally\n    var markers: Boolean? /* = false */\n        get() =
definedExternally\n        set(value) = definedExternally\n    var clipped: Boolean? /* = false */\n        get() =
definedExternally\n        set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun SVGBoundingBoxOptions(fill:
Boolean? = true, stroke: Boolean? = false, markers: Boolean? = false, clipped: Boolean? = false):
SVGBoundingBoxOptions {\n    val o = js(\"({})\")\n    o[\"fill\"] = fill\n    o[\"stroke\"] = stroke\n    o[\"markers\"]
= markers\n    o[\"clipped\"] = clipped\n    return o\n}\n\n/**\n * Exposes the JavaScript
[SVGGraphicsElement](https://developer.mozilla.org/en/docs/Web/API/SVGGraphicsElement) to Kotlin\n
*/\npublic external abstract class SVGGraphicsElement : SVGElement, SVGTests {\n    open val transform:
SVGAnimatedTransformList\n    fun getBBox(options:
SVGBoundingBoxOptions = definedExternally): DOMRect\n    fun getCTM(): DOMMatrix?\n    fun
getScreenCTM(): DOMMatrix?\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val
ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[SVGGeometryElement](https://developer.mozilla.org/en/docs/Web/API/SVGGeometryElement)
to Kotlin\n */\npublic external abstract class SVGGeometryElement : SVGGraphicsElement {\n    open val
pathLength: SVGAnimatedNumber\n    fun isPointInFill(point: DOMPoint): Boolean\n    fun isPointInStroke(point:
DOMPoint): Boolean\n    fun getTotalLength(): Float\n    fun getPointAtLength(distance: Float): DOMPoint\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val
TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE:
Short\n        val ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val
COMMENT_NODE: Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n
        val DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[SVGNumber](https://developer.mozilla.org/en/docs/Web/API/SVGNumber) to Kotlin\n */\npublic external
abstract class SVGNumber {\n    open var value: Float\n}\n\n/**\n * Exposes the JavaScript
[SVGLength](https://developer.mozilla.org/en/docs/Web/API/SVGLength) to Kotlin\n */\npublic external
abstract class SVGLength {\n    open val unitType: Short\n    open var value: Float\n    open var valueInSpecifiedUnits:
Float\n    open var valueAsString: String\n    fun newValueSpecifiedUnits(unitType: Short, valueInSpecifiedUnits:
Float)\n    fun convertToSpecifiedUnits(unitType: Short)\n\n    companion object {\n        val
SVG_LENGTHTYPE_UNKNOWN: Short\n        val SVG_LENGTHTYPE_NUMBER: Short\n        val
SVG_LENGTHTYPE_PERCENTAGE: Short\n        val SVG_LENGTHTYPE_EMS: Short\n        val
SVG_LENGTHTYPE_EXS: Short\n        val SVG_LENGTHTYPE_PX:
Short\n        val SVG_LENGTHTYPE_CM: Short\n        val SVG_LENGTHTYPE_MM: Short\n        val
SVG_LENGTHTYPE_IN: Short\n        val SVG_LENGTHTYPE_PT: Short\n        val SVG_LENGTHTYPE_PC:
Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[SVGAngle](https://developer.mozilla.org/en/docs/Web/API/SVGAngle) to Kotlin\n */\npublic external abstract

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class SVGAngle {\n  open val unitType: Short\n  open var value: Float\n  open var valueInSpecifiedUnits:
Float\n  open var valueAsString: String\n  fun newValueSpecifiedUnits(unitType: Short, valueInSpecifiedUnits:
Float)\n  fun convertToSpecifiedUnits(unitType: Short)\n\n  companion object {\n    val
SVG_ANGLETYPE_UNKNOWN: Short\n    val SVG_ANGLETYPE_UNSPECIFIED: Short\n    val
SVG_ANGLETYPE_DEG: Short\n    val SVG_ANGLETYPE_RAD: Short\n    val
SVG_ANGLETYPE_GRAD: Short\n  }\n}\n\npublic external abstract class SVGNameList {\n  open val length:
Int\n  open val numberOfItems: Int\n  fun clear()\n
  fun initialize(newItem: dynamic): dynamic\n  fun insertItemBefore(newItem: dynamic, index: Int): dynamic\n
  fun replaceItem(newItem: dynamic, index: Int): dynamic\n  fun removeItem(index: Int): dynamic\n  fun
appendItem(newItem: dynamic): dynamic\n  fun getItem(index: Int):
dynamic\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGNameList.get(index: Int):
dynamic = asDynamic()[index]\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGNameList.set(index: Int,
newItem: dynamic) { asDynamic()[index] = newItem }\n\n/**\n * Exposes the JavaScript
[SVGNumberList](https://developer.mozilla.org/en/docs/Web/API/SVGNumberList) to Kotlin\n */\n\npublic external
abstract class SVGNumberList {\n  open val length: Int\n  open val numberOfItems: Int\n  fun clear()\n  fun
initialize(newItem: SVGNumber): SVGNumber\n  fun insertItemBefore(newItem:
SVGNumber, index: Int): SVGNumber\n  fun replaceItem(newItem: SVGNumber, index: Int): SVGNumber\n
  fun removeItem(index: Int): SVGNumber\n  fun appendItem(newItem: SVGNumber): SVGNumber\n  fun
getItem(index: Int): SVGNumber\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGNumberList.get(index:
Int): SVGNumber? = asDynamic()[index]\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGNumberList.set(index:
Int, newItem: SVGNumber) { asDynamic()[index] = newItem }\n\n/**\n * Exposes the JavaScript
[SVGLengthList](https://developer.mozilla.org/en/docs/Web/API/SVGLengthList) to Kotlin\n */\n\npublic external
abstract class SVGLengthList {\n  open val length: Int\n  open val numberOfItems: Int\n  fun clear()\n  fun
initialize(newItem: SVGLength): SVGLength\n  fun insertItemBefore(newItem: SVGLength, index: Int):
SVGLength\n
  fun replaceItem(newItem: SVGLength, index: Int): SVGLength\n  fun removeItem(index: Int): SVGLength\n
  fun appendItem(newItem: SVGLength): SVGLength\n  fun getItem(index: Int):
SVGLength\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGLengthList.get(index:
Int): SVGLength? = asDynamic()[index]\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGLengthList.set(index: Int,
newItem: SVGLength) { asDynamic()[index] = newItem }\n\n/**\n * Exposes the JavaScript
[SVGAnimatedBoolean](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedBoolean) to Kotlin\n */\n\npublic external
abstract class SVGAnimatedBoolean {\n  open var baseVal: Boolean\n  open val animVal:
Boolean\n}\n\n/**\n * Exposes the JavaScript
[SVGAnimatedEnumeration](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedEnumeration) to
Kotlin\n */\n\npublic external abstract
class SVGAnimatedEnumeration {\n  open var baseVal: Short\n  open val animVal: Short\n}\n\n/**\n * Exposes
the JavaScript [SVGAnimatedInteger](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedInteger) to
Kotlin\n */\n\npublic external abstract class SVGAnimatedInteger {\n  open var baseVal: Int\n  open val animVal:
Int\n}\n\n/**\n * Exposes the JavaScript
[SVGAnimatedNumber](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedNumber) to Kotlin\n */\n\npublic external
abstract class SVGAnimatedNumber {\n  open var baseVal: Float\n  open val animVal:
Float\n}\n\n/**\n * Exposes the JavaScript

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[SVGAnimatedLength](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedLength) to Kotlin\n
`*\npublic external abstract class SVGAnimatedLength {\n open val baseVal: SVGLength\n open val animVal: SVGLength\n}\n\n**\n * Exposes the JavaScript`

[SVGAnimatedAngle](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedAngle) to Kotlin\n
`*\npublic external abstract class SVGAnimatedAngle {\n open val baseVal: SVGAngle\n open val animVal: SVGAngle\n}\n\n**\n * Exposes the JavaScript`

[SVGAnimatedString](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedString) to Kotlin\n
`*\npublic external abstract class SVGAnimatedString {\n open var baseVal: String\n open val animVal: String\n}\n\n**\n * Exposes the JavaScript`

[SVGAnimatedRect](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedRect) to Kotlin\n
`*\npublic external abstract class SVGAnimatedRect {\n open val baseVal: DOMRect\n open val animVal: DOMRectReadOnly\n}\n\n**\n * Exposes the JavaScript`

[SVGAnimatedNumberList](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedNumberList) to Kotlin\n
`*\npublic external abstract class SVGAnimatedNumberList {\n open val baseVal: SVGNumberList\n open val animVal: SVGNumberList\n}\n\n**\n * Exposes the JavaScript`

[SVGAnimatedLengthList](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedLengthList) to Kotlin\n
`*\npublic external abstract class SVGAnimatedLengthList {\n open val baseVal: SVGLengthList\n open val animVal: SVGLengthList\n}\n\n**\n * Exposes the JavaScript`

[SVGStringList](https://developer.mozilla.org/en/docs/Web/API/SVGStringList) to Kotlin\n
`*\npublic external abstract class SVGStringList {\n open val length: Int\n open val numberOfItems: Int\n fun clear()\n fun initialize(newItem: String): String\n fun insertItemBefore(newItem: String, index: Int): String\n fun replaceItem(newItem: String, index: Int): String\n fun removeItem(index: Int): String\n fun appendItem(newItem: String): String\n fun getItem(index: Int): String\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGStringList.get(index: Int): String? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGStringList.set(index: Int, newItem: String) { asDynamic()[index] = newItem }\n\n**\n * Exposes the JavaScript`

[SVGUnitTypes](https://developer.mozilla.org/en/docs/Web/API/SVGUnitTypes) to Kotlin\n
`*\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface SVGUnitTypes {\n companion object {\n val SVG_UNIT_TYPE_UNKNOWN: Short\n val SVG_UNIT_TYPE_USERSPACEONUSE: Short\n val SVG_UNIT_TYPE_OBJECTBOUNDINGBOX: Short\n }\n}\n\n**\n * Exposes the JavaScript`

[SVGTTests](https://developer.mozilla.org/en/docs/Web/API/SVGTTests) to Kotlin\n
`*\npublic external interface SVGTTests {\n val requiredExtensions: SVGStringList\n val systemLanguage: SVGStringList\n}\n\npublic external interface SVGFitToViewBox {\n val viewBox: SVGAnimatedRect\n val preserveAspectRatio: SVGAnimatedPreserveAspectRatio\n}\n\n**\n * Exposes the JavaScript`

[SVGZoomAndPan](https://developer.mozilla.org/en/docs/Web/API/SVGZoomAndPan) to Kotlin\n
`*\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface SVGZoomAndPan {\n var zoomAndPan: Short\n\n companion object {\n val SVG_ZOOMANDPAN_UNKNOWN: Short\n val SVG_ZOOMANDPAN_DISABLE: Short\n val SVG_ZOOMANDPAN_MAGNIFY: Short\n }\n}\n\n**\n * Exposes the JavaScript`

[SVGURIReference](https://developer.mozilla.org/en/docs/Web/API/SVGURIReference) to Kotlin\n
`*\npublic external interface SVGURIReference {\n val href: SVGAnimatedString\n}\n\n**\n * Exposes the JavaScript`

[SVGSVGElement](https://developer.mozilla.org/en/docs/Web/API/SVGSVGElement) to Kotlin\n
`*\npublic external abstract class SVGSVGElement : SVGGraphicsElement, SVGFitToViewBox, SVGZoomAndPan, WindowEventHandlers {\n open val x: SVGAnimatedLength\n open val y: SVGAnimatedLength\n open val width: SVGAnimatedLength\n open val height: SVGAnimatedLength\n open var currentScale: Float\n open`



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    val DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    } \n} \n \n /** \n * Exposes the JavaScript
[SVGDescElement](https://developer.mozilla.org/en/docs/Web/API/SVGDescElement) to Kotlin \n * \n public
external abstract class SVGDescElement : SVGElement { \n    companion object { \n        val ELEMENT_NODE:
Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE:
Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n
        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n        } \n} \n \n /** \n * Exposes the JavaScript
[SVGMetadataElement](https://developer.mozilla.org/en/docs/Web/API/SVGMetadataElement) to Kotlin \n
* \n public external abstract class SVGMetadataElement : SVGElement { \n    companion object { \n        val
ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val
CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE:
Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n        } \n} \n \n /** \n * Exposes the JavaScript
[SVGTitleElement](https://developer.mozilla.org/en/docs/Web/API/SVGTitleElement) to Kotlin \n * \n public
external abstract class SVGTitleElement : SVGElement { \n    companion object { \n        val ELEMENT_NODE:
Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE:
Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE:
Short\n        val COMMENT_NODE: Short\n        val DOCUMENT_NODE: Short\n        val
DOCUMENT_TYPE_NODE: Short\n        val DOCUMENT_FRAGMENT_NODE: Short\n        val
NOTATION_NODE: Short\n        val DOCUMENT_POSITION_DISCONNECTED: Short\n        val
DOCUMENT_POSITION_PRECEDING: Short\n        val DOCUMENT_POSITION_FOLLOWING: Short\n
        val DOCUMENT_POSITION_CONTAINS: Short\n        val DOCUMENT_POSITION_CONTAINED_BY:
Short\n        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n        } \n} \n \n /** \n * Exposes
the JavaScript [SVGSymbolElement](https://developer.mozilla.org/en/docs/Web/API/SVGSymbolElement) to
Kotlin \n * \n public external abstract class SVGSymbolElement : SVGGraphicsElement, SVGFitToViewBox { \n
    companion object { \n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n       
        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE:
Short\n        val ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE:
Short\n        val COMMENT_NODE: Short\n        val DOCUMENT_NODE: Short\n        val
DOCUMENT_TYPE_NODE: Short\n        val DOCUMENT_FRAGMENT_NODE: Short\n        val
NOTATION_NODE: Short\n        val DOCUMENT_POSITION_DISCONNECTED: Short\n        val
DOCUMENT_POSITION_PRECEDING: Short\n        val DOCUMENT_POSITION_FOLLOWING: Short\n

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val DOCUMENT_POSITION_CONTAINS: Short\n    val DOCUMENT_POSITION_CONTAINED_BY:
Short\n    val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes
the JavaScript [SVGUseElement](https://developer.mozilla.org/en/docs/Web/API/SVGUseElement) to Kotlin\n
*\n\npublic external abstract class SVGUseElement : SVGGraphicsElement, SVGURIReference {\n    open val x:
SVGAnimatedLength\n    open val y: SVGAnimatedLength\n    open val width: SVGAnimatedLength\n    open val
height: SVGAnimatedLength\n    open val instanceRoot: SVGElement?\n    open val animatedInstanceRoot:
SVGElement?\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val
CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE:
Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\npublic external open class
SVGUseElementShadowRoot : ShadowRoot {\n    companion object {\n        val ELEMENT_NODE: Short\n
        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n
        val ENTITY_REFERENCE_NODE:
Short\n        val ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val
COMMENT_NODE: Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n
        val DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\npublic external interface
SVGElementInstance {\n    val correspondingElement: SVGElement?\n    get() = definedExternally\n    val
correspondingUseElement: SVGUseElement?\n    get() = definedExternally\n}\n\n\npublic external open class
ShadowAnimation(source: dynamic, newTarget: dynamic) {\n    open val sourceAnimation: dynamic\n}\n\n\n/**\n *
Exposes the JavaScript [SVGSwitchElement](https://developer.mozilla.org/en/docs/Web/API/SVGSwitchElement)
to Kotlin\n
*\n\npublic external abstract class SVGSwitchElement : SVGGraphicsElement {\n    companion object
{\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n
        val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val
ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE:
Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\npublic external interface
GetSVGDocument {\n    fun getSVGDocument():
Document\n}\n\n\n/**\n * Exposes the JavaScript
[SVGStyleElement](https://developer.mozilla.org/en/docs/Web/API/SVGStyleElement) to Kotlin\n
*\n\npublic external abstract class SVGStyleElement : SVGElement, LinkStyle {\n    open var type: String\n    open var media:
String\n    open var title: String\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val
ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val

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```

DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY:
Short\n    val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes
the JavaScript [SVGTransform](https://developer.mozilla.org/en/docs/Web/API/SVGTransform) to Kotlin\n
*/\npublic external abstract class SVGTransform {\n    open val type: Short\n    open val matrix: DOMMatrix\n
open val angle: Float\n    fun setMatrix(matrix: DOMMatrixReadOnly)\n    fun setTranslate(tx: Float, ty: Float)\n
fun setScale(sx: Float, sy: Float)\n    fun setRotate(angle: Float, cx: Float, cy: Float)\n    fun setSkewX(angle:
Float)\n    fun setSkewY(angle: Float)\n\n    companion object {\n        val SVG_TRANSFORM_UNKNOWN:
Short\n        val SVG_TRANSFORM_MATRIX: Short\n        val SVG_TRANSFORM_TRANSLATE: Short\n
val SVG_TRANSFORM_SCALE: Short\n        val SVG_TRANSFORM_ROTATE: Short\n        val
SVG_TRANSFORM_SKEWX: Short\n        val SVG_TRANSFORM_SKEWY: Short\n    }\n}\n\n/**\n * Exposes
the JavaScript [SVGTransformList](https://developer.mozilla.org/en/docs/Web/API/SVGTransformList)
to Kotlin\n */\npublic external abstract class SVGTransformList {\n    open val length: Int\n    open val
numberOfItems: Int\n    fun clear()\n    fun initialize(newItem: SVGTransform): SVGTransform\n    fun
insertItemBefore(newItem: SVGTransform, index: Int): SVGTransform\n    fun replaceItem(newItem:
SVGTransform, index: Int): SVGTransform\n    fun removeItem(index: Int): SVGTransform\n    fun
appendItem(newItem: SVGTransform): SVGTransform\n    fun createSVGTransformFromMatrix(matrix:
DOMMatrixReadOnly): SVGTransform\n    fun consolidate(): SVGTransform?\n    fun getItem(index: Int):
SVGTransform\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGTransformList.get(index:
Int): SVGTransform? = asDynamic()[index]\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGTransformList.set(index:
Int, newItem: SVGTransform)
{ asDynamic()[index] = newItem }\n\n/**\n * Exposes the JavaScript
[SVGAnimatedTransformList](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedTransformList) to
Kotlin\n */\npublic external abstract class SVGAnimatedTransformList {\n    open val baseVal:
SVGTransformList\n    open val animVal: SVGTransformList\n}\n\n/**\n * Exposes the JavaScript
[SVGPreserveAspectRatio](https://developer.mozilla.org/en/docs/Web/API/SVGPreserveAspectRatio) to Kotlin\n
*/\npublic external abstract class SVGPreserveAspectRatio {\n    open var align: Short\n    open var meetOrSlice:
Short\n\n    companion object {\n        val SVG_PRESERVEASPECTRATIO_UNKNOWN: Short\n        val
SVG_PRESERVEASPECTRATIO_NONE: Short\n        val SVG_PRESERVEASPECTRATIO_XMINYMIN:
Short\n        val SVG_PRESERVEASPECTRATIO_XMIDYMIN: Short\n        val
SVG_PRESERVEASPECTRATIO_XMAXYMIN: Short\n        val
SVG_PRESERVEASPECTRATIO_XMINYMID: Short\n        val
SVG_PRESERVEASPECTRATIO_XMIDYMID: Short\n        val
SVG_PRESERVEASPECTRATIO_XMAXYMID:
Short\n        val SVG_PRESERVEASPECTRATIO_XMINYMAX: Short\n        val
SVG_PRESERVEASPECTRATIO_XMIDYMAX: Short\n        val
SVG_PRESERVEASPECTRATIO_XMAXYMAX: Short\n        val SVG_MEETORSLICE_UNKNOWN: Short\n
val SVG_MEETORSLICE_MEET: Short\n        val SVG_MEETORSLICE_SLICE: Short\n    }\n}\n\n/**\n *
Exposes the JavaScript
[SVGAnimatedPreserveAspectRatio](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedPreserveAspect
Ratio) to Kotlin\n */\npublic external abstract class SVGAnimatedPreserveAspectRatio {\n    open val baseVal:
SVGPreserveAspectRatio\n    open val animVal: SVGPreserveAspectRatio\n}\n\n/**\n * Exposes the JavaScript
[SVGPathElement](https://developer.mozilla.org/en/docs/Web/API/SVGPathElement) to Kotlin\n */\npublic

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external abstract class SVGPathElement : SVGGeometryElement {
    companion object {
        val ELEMENT_NODE: Short
        val ATTRIBUTE_NODE: Short
        val TEXT_NODE: Short
        val CDATA_SECTION_NODE: Short
        val ENTITY_REFERENCE_NODE: Short
        val ENTITY_NODE: Short
        val PROCESSING_INSTRUCTION_NODE: Short
        val COMMENT_NODE: Short
        val DOCUMENT_NODE: Short
        val DOCUMENT_TYPE_NODE: Short
        val DOCUMENT_FRAGMENT_NODE: Short
        val NOTATION_NODE: Short
        val DOCUMENT_POSITION_DISCONNECTED: Short
        val DOCUMENT_POSITION_PRECEDING: Short
        val DOCUMENT_POSITION_FOLLOWING: Short
        val DOCUMENT_POSITION_CONTAINS: Short
        val DOCUMENT_POSITION_CONTAINED_BY: Short
        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short
    }
}

/** Exposes the JavaScript [SVGRectElement](https://developer.mozilla.org/en/docs/Web/API/SVGRectElement) to Kotlin */
@public
external abstract class SVGRectElement : SVGGeometryElement {
    open val x: SVGAnimatedLength
    open val y: SVGAnimatedLength
    open val width: SVGAnimatedLength
    open val height: SVGAnimatedLength
    open val rx: SVGAnimatedLength
    open val ry: SVGAnimatedLength

    companion object {
        val ELEMENT_NODE: Short
        val ATTRIBUTE_NODE: Short
        val TEXT_NODE: Short
        val CDATA_SECTION_NODE: Short
        val ENTITY_REFERENCE_NODE: Short
        val ENTITY_NODE: Short
        val PROCESSING_INSTRUCTION_NODE: Short
        val COMMENT_NODE: Short
        val DOCUMENT_NODE: Short
        val DOCUMENT_TYPE_NODE: Short
        val DOCUMENT_FRAGMENT_NODE: Short
        val NOTATION_NODE: Short
        val DOCUMENT_POSITION_DISCONNECTED: Short
        val DOCUMENT_POSITION_PRECEDING: Short
        val DOCUMENT_POSITION_FOLLOWING: Short
        val DOCUMENT_POSITION_CONTAINS: Short
        val DOCUMENT_POSITION_CONTAINED_BY: Short
        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short
    }
}

/** Exposes the JavaScript [SVGCircleElement](https://developer.mozilla.org/en/docs/Web/API/SVGCircleElement) to Kotlin */
@public
external abstract class SVGCircleElement : SVGGeometryElement {
    open val cx: SVGAnimatedLength
    open val cy: SVGAnimatedLength
    open val r: SVGAnimatedLength

    companion object {
        val ELEMENT_NODE: Short
        val ATTRIBUTE_NODE: Short
        val TEXT_NODE: Short
        val CDATA_SECTION_NODE: Short
        val ENTITY_REFERENCE_NODE: Short
        val ENTITY_NODE: Short
        val PROCESSING_INSTRUCTION_NODE: Short
        val COMMENT_NODE: Short
        val DOCUMENT_NODE: Short
        val DOCUMENT_TYPE_NODE: Short
        val DOCUMENT_FRAGMENT_NODE: Short
        val NOTATION_NODE: Short
        val DOCUMENT_POSITION_DISCONNECTED: Short
        val DOCUMENT_POSITION_PRECEDING: Short
        val DOCUMENT_POSITION_FOLLOWING: Short
        val DOCUMENT_POSITION_CONTAINS: Short
        val DOCUMENT_POSITION_CONTAINED_BY: Short
        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short
    }
}

/** Exposes the JavaScript [SVGEllipseElement](https://developer.mozilla.org/en/docs/Web/API/SVGEllipseElement) to Kotlin */
@public
external abstract class SVGEllipseElement : SVGGeometryElement {
    open val cx: SVGAnimatedLength
    open val cy: SVGAnimatedLength
    open val rx: SVGAnimatedLength
    open val ry: SVGAnimatedLength

    companion object {
        val ELEMENT_NODE: Short
        val ATTRIBUTE_NODE: Short
        val TEXT_NODE: Short
        val CDATA_SECTION_NODE: Short
        val ENTITY_REFERENCE_NODE: Short
        val ENTITY_NODE: Short
        val PROCESSING_INSTRUCTION_NODE: Short
        val COMMENT_NODE: Short
        val DOCUMENT_NODE: Short
        val DOCUMENT_TYPE_NODE: Short
        val DOCUMENT_FRAGMENT_NODE: Short
        val NOTATION_NODE: Short
        val DOCUMENT_POSITION_DISCONNECTED: Short
        val DOCUMENT_POSITION_PRECEDING: Short
    }
}

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val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n
val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the
JavaScript [SVGLineElement](https://developer.mozilla.org/en/docs/Web/API/SVGLineElement) to Kotlin\n
*/\npublic external abstract class SVGLineElement : SVGGeometryElement {\n    open val x1:
SVGAnimatedLength\n    open val y1: SVGAnimatedLength\n    open val x2: SVGAnimatedLength\n    open val
y2: SVGAnimatedLength\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val
ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING:
Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n        val
DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[SVGMeshElement](https://developer.mozilla.org/en/docs/Web/API/SVGMeshElement) to Kotlin\n
*/\npublic external abstract class SVGMeshElement : SVGGeometryElement, SVGURIReference {\n    companion object {\n
        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val
CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE:
Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING:
Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n        val
DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[SVGAnimatedPoints](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedPoints) to Kotlin\n
*/\npublic external interface SVGAnimatedPoints {\n    val points: SVGPointList\n    val animatedPoints:
SVGPointList\n}\n\npublic external abstract class SVGPointList {\n    open val length: Int\n    open val
numberOfItems: Int\n    fun clear()\n    fun initialize(newItem: DOMPoint): DOMPoint\n    fun
insertItemBefore(newItem: DOMPoint, index: Int): DOMPoint\n    fun replaceItem(newItem: DOMPoint, index:
Int): DOMPoint\n    fun removeItem(index: Int): DOMPoint\n    fun appendItem(newItem: DOMPoint):
DOMPoint\n    fun getItem(index: Int): DOMPoint\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGPointList.get(index:
Int): DOMPoint? = asDynamic()[index]\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGPointList.set(index: Int,
newItem: DOMPoint) { asDynamic()[index] = newItem }\n\n/**\n * Exposes the JavaScript
[SVGPolylineElement](https://developer.mozilla.org/en/docs/Web/API/SVGPolylineElement) to Kotlin\n
*/\npublic external abstract class SVGPolylineElement : SVGGeometryElement, SVGAnimatedPoints {\n
    companion object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val
TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE:
Short\n        val ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val
COMMENT_NODE: Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n
        val DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n

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    val DOCUMENT_POSITION_PRECEDING: Short\n    val DOCUMENT_POSITION_FOLLOWING:
Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n    val
DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }|n}|n/n/**\n * Exposes the JavaScript
[SVGPolygonElement](https://developer.mozilla.org/en/docs/Web/API/SVGPolygonElement) to Kotlin\n
*/\npublic external abstract class SVGPolygonElement : SVGGeometryElement, SVGAnimatedPoints {\n
companion object {\n    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val
TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE:
Short\n    val ENTITY_NODE: Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val
COMMENT_NODE: Short\n    val DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n
    val DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED:
Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n    val
DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }|n}|n/n/**\n * Exposes the JavaScript
[SVGTextContentElement](https://developer.mozilla.org/en/docs/Web/API/SVGTextContentElement) to Kotlin\n
*/\npublic external abstract class SVGTextContentElement : SVGGraphicsElement {\n    open val textLength:
SVGAnimatedLength\n    open val lengthAdjust: SVGAnimatedEnumeration\n    fun getNumberOfChars(): Int\n
fun getComputedTextLength(): Float\n    fun getSubStringLength(charnum: Int, nchars: Int): Float\n    fun
getStartPositionOfChar(charnum: Int): DOMPoint\n    fun getEndPositionOfChar(charnum: Int): DOMPoint\n    fun
getExtentOfChar(charnum: Int): DOMRect\n    fun getRotationOfChar(charnum: Int): Float\n    fun
getCharNumAtPosition(point: DOMPoint): Int\n    fun selectSubString(charnum:
Int, nchars: Int)\n\n    companion object {\n    val LENGTHADJUST_UNKNOWN: Short\n    val
LENGTHADJUST_SPACING: Short\n    val LENGTHADJUST_SPACINGANDGLYPHS: Short\n    val
ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val
CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE:
Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }|n}|n/n/**\n * Exposes the JavaScript
[SVGTextPositioningElement](https://developer.mozilla.org/en/docs/Web/API/SVGTextPositioningElement)
to Kotlin\n */\npublic external abstract class SVGTextPositioningElement : SVGTextContentElement {\n    open
val x: SVGAnimatedLengthList\n    open val y: SVGAnimatedLengthList\n    open val dx:
SVGAnimatedLengthList\n    open val dy: SVGAnimatedLengthList\n    open val rotate:
SVGAnimatedNumberList\n\n    companion object {\n    val LENGTHADJUST_UNKNOWN: Short\n    val
LENGTHADJUST_SPACING: Short\n    val LENGTHADJUST_SPACINGANDGLYPHS: Short\n    val
ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val
CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE:
Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val

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DOCUMENT\_POSITION\_IMPLEMENTATION\_SPECIFIC: Short\n }\n}\n\n/\*\*\n \* Exposes the JavaScript [SVGTextElement](https://developer.mozilla.org/en/docs/Web/API/SVGTextElement) to Kotlin\n \*/\npublic external abstract class SVGTextElement : SVGTextPositioningElement {\n companion object {\n val LENGTHADJUST\_UNKNOWN: Short\n val LENGTHADJUST\_SPACING: Short\n val LENGTHADJUST\_SPACINGANDGLYPHS: Short\n val ELEMENT\_NODE: Short\n val ATTRIBUTE\_NODE: Short\n val TEXT\_NODE: Short\n val CDATA\_SECTION\_NODE: Short\n val ENTITY\_REFERENCE\_NODE: Short\n val ENTITY\_NODE: Short\n val PROCESSING\_INSTRUCTION\_NODE: Short\n val COMMENT\_NODE: Short\n val DOCUMENT\_NODE: Short\n val DOCUMENT\_TYPE\_NODE: Short\n val DOCUMENT\_FRAGMENT\_NODE: Short\n val NOTATION\_NODE: Short\n val DOCUMENT\_POSITION\_DISCONNECTED: Short\n val DOCUMENT\_POSITION\_PRECEDING: Short\n val DOCUMENT\_POSITION\_FOLLOWING: Short\n val DOCUMENT\_POSITION\_CONTAINS: Short\n val DOCUMENT\_POSITION\_CONTAINED\_BY: Short\n val DOCUMENT\_POSITION\_IMPLEMENTATION\_SPECIFIC: Short\n }\n}\n\n/\*\*\n \* Exposes the JavaScript [SVGTSpanElement](https://developer.mozilla.org/en/docs/Web/API/SVGTSpanElement) to Kotlin\n \*/\npublic external abstract class SVGTSpanElement : SVGTextPositioningElement {\n companion object {\n val LENGTHADJUST\_UNKNOWN: Short\n val LENGTHADJUST\_SPACING: Short\n val LENGTHADJUST\_SPACINGANDGLYPHS: Short\n val ELEMENT\_NODE: Short\n val ATTRIBUTE\_NODE: Short\n val TEXT\_NODE: Short\n val CDATA\_SECTION\_NODE: Short\n val ENTITY\_REFERENCE\_NODE: Short\n val ENTITY\_NODE: Short\n val PROCESSING\_INSTRUCTION\_NODE: Short\n val COMMENT\_NODE: Short\n val DOCUMENT\_NODE: Short\n val DOCUMENT\_TYPE\_NODE: Short\n val DOCUMENT\_FRAGMENT\_NODE: Short\n val NOTATION\_NODE: Short\n val DOCUMENT\_POSITION\_DISCONNECTED: Short\n val DOCUMENT\_POSITION\_PRECEDING: Short\n val DOCUMENT\_POSITION\_FOLLOWING: Short\n val DOCUMENT\_POSITION\_CONTAINS: Short\n val DOCUMENT\_POSITION\_CONTAINED\_BY: Short\n val DOCUMENT\_POSITION\_IMPLEMENTATION\_SPECIFIC: Short\n }\n}\n\n/\*\*\n \* Exposes the JavaScript [SVGTextPathElement](https://developer.mozilla.org/en/docs/Web/API/SVGTextPathElement) to Kotlin\n \*/\npublic external abstract class SVGTextPathElement : SVGTextContentElement, SVGURIReference {\n open val startOffset: SVGAnimatedLength\n open val method: SVGAnimatedEnumeration\n open val spacing: SVGAnimatedEnumeration\n\n companion object {\n val TEXTPATH\_METHODTYPE\_UNKNOWN: Short\n val TEXTPATH\_METHODTYPE\_ALIGN: Short\n val TEXTPATH\_METHODTYPE\_STRETCH: Short\n val TEXTPATH\_SPACINGTYPE\_UNKNOWN: Short\n val TEXTPATH\_SPACINGTYPE\_AUTO: Short\n val TEXTPATH\_SPACINGTYPE\_EXACT: Short\n val LENGTHADJUST\_UNKNOWN: Short\n val LENGTHADJUST\_SPACING: Short\n val LENGTHADJUST\_SPACINGANDGLYPHS: Short\n val ELEMENT\_NODE: Short\n val ATTRIBUTE\_NODE: Short\n val TEXT\_NODE: Short\n val CDATA\_SECTION\_NODE: Short\n val ENTITY\_REFERENCE\_NODE: Short\n val ENTITY\_NODE: Short\n val PROCESSING\_INSTRUCTION\_NODE: Short\n val COMMENT\_NODE: Short\n val DOCUMENT\_NODE: Short\n val DOCUMENT\_TYPE\_NODE: Short\n val DOCUMENT\_FRAGMENT\_NODE: Short\n val NOTATION\_NODE: Short\n val DOCUMENT\_POSITION\_DISCONNECTED: Short\n val DOCUMENT\_POSITION\_PRECEDING: Short\n val DOCUMENT\_POSITION\_FOLLOWING: Short\n val DOCUMENT\_POSITION\_CONTAINS: Short\n val DOCUMENT\_POSITION\_CONTAINED\_BY: Short\n val DOCUMENT\_POSITION\_IMPLEMENTATION\_SPECIFIC: Short\n }\n}\n\n/\*\*\n \* Exposes the JavaScript [SVGImageElement](https://developer.mozilla.org/en/docs/Web/API/SVGImageElement) to Kotlin\n \*/\npublic external abstract class SVGImageElement : SVGGraphicsElement, SVGURIReference,

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HTMLorSVGImageElement {\n  open val x: SVGAnimatedLength\n  open val y: SVGAnimatedLength\n  open
val width: SVGAnimatedLength\n  open val height: SVGAnimatedLength\n  open val preserveAspectRatio:
SVGAnimatedPreserveAspectRatio\n  open var crossOrigin: String?\n\n  companion object {\n    val
ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val
CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE:
Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n
    val DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n  }\n}\n\n/**\n * Exposes the JavaScript
[SVGForeignObjectElement](https://developer.mozilla.org/en/docs/Web/API/SVGForeignObjectElement) to
Kotlin\n */\npublic external abstract class SVGForeignObjectElement : SVGGraphicsElement {\n  open val x:
SVGAnimatedLength\n  open val y: SVGAnimatedLength\n  open val width: SVGAnimatedLength\n  open val
height: SVGAnimatedLength\n\n  companion object {\n    val ELEMENT_NODE: Short\n    val
ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val
ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n
    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n  }\n}\n\npublic external abstract class
SVGMarkerElement : SVGElement, SVGFitToViewBox {\n  open val refX: SVGAnimatedLength\n  open val
refY: SVGAnimatedLength\n  open val markerUnits: SVGAnimatedEnumeration\n  open val markerWidth:
SVGAnimatedLength\n  open val markerHeight: SVGAnimatedLength\n  open val orientType:
SVGAnimatedEnumeration\n  open val orientAngle: SVGAnimatedAngle\n  open var orient: String\n  fun
setOrientToAuto()\n
  fun setOrientToAngle(angle: SVGAngle)\n\n  companion object {\n    val
SVG_MARKERUNITS_UNKNOWN: Short\n    val SVG_MARKERUNITS_USERSPACEONUSE: Short\n
    val SVG_MARKERUNITS_STROKEWIDTH: Short\n    val SVG_MARKER_ORIENT_UNKNOWN: Short\n
    val SVG_MARKER_ORIENT_AUTO: Short\n    val SVG_MARKER_ORIENT_ANGLE: Short\n    val
ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val
CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE:
Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY:
Short\n    val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n  }\n}\n\n/**\n * Exposes
the JavaScript [SVGSolidcolorElement](https://developer.mozilla.org/en/docs/Web/API/SVGSolidcolorElement) to
Kotlin\n */\npublic external abstract class SVGSolidcolorElement : SVGElement {\n  companion object {\n
    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val
CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE:
Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val

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DOCUMENT\_NODE: Short\n val DOCUMENT\_TYPE\_NODE: Short\n val  
DOCUMENT\_FRAGMENT\_NODE: Short\n val NOTATION\_NODE: Short\n val  
DOCUMENT\_POSITION\_DISCONNECTED: Short\n val DOCUMENT\_POSITION\_PRECEDING: Short\n  
val DOCUMENT\_POSITION\_FOLLOWING: Short\n val DOCUMENT\_POSITION\_CONTAINS: Short\n  
val DOCUMENT\_POSITION\_CONTAINED\_BY:  
Short\n val DOCUMENT\_POSITION\_IMPLEMENTATION\_SPECIFIC: Short\n } \n } \n \n /\*\* \n \* Exposes  
the JavaScript [SVGGradientElement](https://developer.mozilla.org/en/docs/Web/API/SVGGradientElement) to  
Kotlin \n \* \n public external abstract class SVGGradientElement : SVGElement, SVGURIReference,  
SVGUnitTypes { \n open val gradientUnits: SVGAnimatedEnumeration \n open val gradientTransform:  
SVGAnimatedTransformList \n open val spreadMethod: SVGAnimatedEnumeration \n \n companion object { \n  
val SVG\_SPREADMETHOD\_UNKNOWN: Short\n val SVG\_SPREADMETHOD\_PAD: Short\n val  
SVG\_SPREADMETHOD\_REFLECT: Short\n val SVG\_SPREADMETHOD\_REPEAT: Short\n val  
SVG\_UNIT\_TYPE\_UNKNOWN: Short\n val SVG\_UNIT\_TYPE\_USERSPACEONUSE: Short\n val  
SVG\_UNIT\_TYPE\_OBJECTBOUNDINGBOX: Short\n val ELEMENT\_NODE: Short\n val  
ATTRIBUTE\_NODE: Short\n val TEXT\_NODE: Short\n val CDATA\_SECTION\_NODE: Short\n val  
ENTITY\_REFERENCE\_NODE:  
Short\n val ENTITY\_NODE: Short\n val PROCESSING\_INSTRUCTION\_NODE: Short\n val  
COMMENT\_NODE: Short\n val DOCUMENT\_NODE: Short\n val DOCUMENT\_TYPE\_NODE: Short\n  
val DOCUMENT\_FRAGMENT\_NODE: Short\n val NOTATION\_NODE: Short\n val  
DOCUMENT\_POSITION\_DISCONNECTED: Short\n val DOCUMENT\_POSITION\_PRECEDING: Short\n  
val DOCUMENT\_POSITION\_FOLLOWING: Short\n val DOCUMENT\_POSITION\_CONTAINS: Short\n  
val DOCUMENT\_POSITION\_CONTAINED\_BY: Short\n val  
DOCUMENT\_POSITION\_IMPLEMENTATION\_SPECIFIC: Short\n } \n } \n \n /\*\* \n \* Exposes the JavaScript  
[SVGLinearGradientElement](https://developer.mozilla.org/en/docs/Web/API/SVGLinearGradientElement) to  
Kotlin \n \* \n public external abstract class SVGLinearGradientElement : SVGGradientElement { \n open val x1:  
SVGAnimatedLength \n open val y1: SVGAnimatedLength \n open val x2: SVGAnimatedLength \n open val  
y2: SVGAnimatedLength \n \n companion object { \n val  
SVG\_SPREADMETHOD\_UNKNOWN: Short\n val SVG\_SPREADMETHOD\_PAD: Short\n val  
SVG\_SPREADMETHOD\_REFLECT: Short\n val SVG\_SPREADMETHOD\_REPEAT: Short\n val  
SVG\_UNIT\_TYPE\_UNKNOWN: Short\n val SVG\_UNIT\_TYPE\_USERSPACEONUSE: Short\n val  
SVG\_UNIT\_TYPE\_OBJECTBOUNDINGBOX: Short\n val ELEMENT\_NODE: Short\n val  
ATTRIBUTE\_NODE: Short\n val TEXT\_NODE: Short\n val CDATA\_SECTION\_NODE: Short\n val  
ENTITY\_REFERENCE\_NODE: Short\n val ENTITY\_NODE: Short\n val  
PROCESSING\_INSTRUCTION\_NODE: Short\n val COMMENT\_NODE: Short\n val  
DOCUMENT\_NODE: Short\n val DOCUMENT\_TYPE\_NODE: Short\n val  
DOCUMENT\_FRAGMENT\_NODE: Short\n val NOTATION\_NODE: Short\n val  
DOCUMENT\_POSITION\_DISCONNECTED: Short\n val DOCUMENT\_POSITION\_PRECEDING: Short\n  
val DOCUMENT\_POSITION\_FOLLOWING: Short\n val DOCUMENT\_POSITION\_CONTAINS: Short\n  
val DOCUMENT\_POSITION\_CONTAINED\_BY: Short\n  
val DOCUMENT\_POSITION\_IMPLEMENTATION\_SPECIFIC: Short\n } \n } \n \n /\*\* \n \* Exposes the  
JavaScript  
[SVGRadialGradientElement](https://developer.mozilla.org/en/docs/Web/API/SVGRadialGradientElement) to  
Kotlin \n \* \n public external abstract class SVGRadialGradientElement : SVGGradientElement { \n open val cx:  
SVGAnimatedLength \n open val cy: SVGAnimatedLength \n open val r: SVGAnimatedLength \n open val fx:  
SVGAnimatedLength \n open val fy: SVGAnimatedLength \n open val fr: SVGAnimatedLength \n \n companion  
object { \n val SVG\_SPREADMETHOD\_UNKNOWN: Short\n val SVG\_SPREADMETHOD\_PAD:  
Short\n val SVG\_SPREADMETHOD\_REFLECT: Short\n val SVG\_SPREADMETHOD\_REPEAT:  
Short\n val SVG\_UNIT\_TYPE\_UNKNOWN: Short\n val SVG\_UNIT\_TYPE\_USERSPACEONUSE:

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Short\n    val SVG_UNIT_TYPE_OBJECTBOUNDINGBOX: Short\n    val ELEMENT_NODE: Short\n
val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n
val ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n    val
PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\npublic external abstract class
SVGMeshGradientElement : SVGGradientElement {\n    companion object {\n    val
SVG_SPREADMETHOD_UNKNOWN: Short\n    val SVG_SPREADMETHOD_PAD: Short\n    val
SVG_SPREADMETHOD_REFLECT: Short\n    val SVG_SPREADMETHOD_REPEAT: Short\n    val
SVG_UNIT_TYPE_UNKNOWN: Short\n    val SVG_UNIT_TYPE_USERSPACEONUSE: Short\n    val
SVG_UNIT_TYPE_OBJECTBOUNDINGBOX:
Short\n    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n
    val CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val
ENTITY_NODE: Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE:
Short\n    val DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\npublic external abstract class
SVGMeshrowElement : SVGElement {\n    companion object {\n    val ELEMENT_NODE: Short\n    val
ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE:
Short\n    val ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n    val
PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\npublic external abstract class
SVGMeshpatchElement : SVGElement {\n    companion object {\n    val ELEMENT_NODE: Short\n    val
ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val
ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n    val
PROCESSING_INSTRUCTION_NODE: Short\n
    val COMMENT_NODE: Short\n    val DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE:
Short\n    val DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[SVGStopElement](https://developer.mozilla.org/en/docs/Web/API/SVGStopElement) to Kotlin\n *\n\npublic
external abstract class SVGStopElement : SVGElement {\n    open val offset: SVGAnimatedNumber\n\n
companion object {\n    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val
TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE:

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Short\n    val ENTITY_NODE: Short\n    val PROCESSING_INSTRUCTION_NODE:
Short\n    val COMMENT_NODE: Short\n    val DOCUMENT_NODE: Short\n    val
DOCUMENT_TYPE_NODE: Short\n    val DOCUMENT_FRAGMENT_NODE: Short\n    val
NOTATION_NODE: Short\n    val DOCUMENT_POSITION_DISCONNECTED: Short\n    val
DOCUMENT_POSITION_PRECEDING: Short\n    val DOCUMENT_POSITION_FOLLOWING: Short\n
val DOCUMENT_POSITION_CONTAINS: Short\n    val DOCUMENT_POSITION_CONTAINED_BY:
Short\n    val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes
the JavaScript [SVGPatternElement](https://developer.mozilla.org/en/docs/Web/API/SVGPatternElement) to
Kotlin\n */\npublic external abstract class SVGPatternElement : SVGElement, SVGFitToViewBox,
SVGURIReference, SVGUnitTypes {\n    open val patternUnits: SVGAnimatedEnumeration\n    open val
patternContentUnits: SVGAnimatedEnumeration\n    open val patternTransform: SVGAnimatedTransformList\n
open val x: SVGAnimatedLength\n    open val y: SVGAnimatedLength\n    open
val width: SVGAnimatedLength\n    open val height: SVGAnimatedLength\n\n    companion object {\n        val
SVG_UNIT_TYPE_UNKNOWN: Short\n        val SVG_UNIT_TYPE_USERSPACEONUSE: Short\n        val
SVG_UNIT_TYPE_OBJECTBOUNDINGBOX: Short\n        val ELEMENT_NODE: Short\n        val
ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\npublic
external abstract class SVGHatchElement : SVGElement {\n    companion object {\n        val ELEMENT_NODE:
Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE:
Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\npublic external abstract class
SVGHatchpathElement : SVGElement {\n    companion object {\n        val ELEMENT_NODE: Short\n        val
ATTRIBUTE_NODE:
Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[SVGCursorElement](https://developer.mozilla.org/en/docs/Web/API/SVGCursorElement) to Kotlin\n */\npublic
external abstract class SVGCursorElement : SVGElement, SVGURIReference {\n    open val x:
SVGAnimatedLength\n    open val y: SVGAnimatedLength\n\n    companion

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object {
    val ELEMENT_NODE: Short
    val ATTRIBUTE_NODE: Short
    val TEXT_NODE: Short
    val CDATA_SECTION_NODE: Short
    val ENTITY_REFERENCE_NODE: Short
    val ENTITY_NODE: Short
    val PROCESSING_INSTRUCTION_NODE: Short
    val COMMENT_NODE: Short
    val DOCUMENT_NODE: Short
    val DOCUMENT_TYPE_NODE: Short
    val DOCUMENT_FRAGMENT_NODE: Short
    val NOTATION_NODE: Short
    val DOCUMENT_POSITION_DISCONNECTED: Short
    val DOCUMENT_POSITION_PRECEDING: Short
    val DOCUMENT_POSITION_FOLLOWING: Short
    val DOCUMENT_POSITION_CONTAINS: Short
    val DOCUMENT_POSITION_CONTAINED_BY: Short
}

DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short }

Exposes the JavaScript [SVGScriptElement](https://developer.mozilla.org/en/docs/Web/API/SVGScriptElement) to Kotlin

public external abstract class SVGScriptElement : SVGElement, SVGURIReference, HTMLOrSVGScriptElement {
    open var type: String
    open var crossOrigin: String?

    companion object {
        val ELEMENT_NODE: Short
        val ATTRIBUTE_NODE: Short
        val TEXT_NODE: Short
        val CDATA_SECTION_NODE: Short
        val ENTITY_REFERENCE_NODE: Short
        val ENTITY_NODE: Short
        val PROCESSING_INSTRUCTION_NODE: Short
        val COMMENT_NODE: Short
        val DOCUMENT_NODE: Short
        val DOCUMENT_TYPE_NODE: Short
        val DOCUMENT_FRAGMENT_NODE: Short
        val NOTATION_NODE: Short
        val DOCUMENT_POSITION_DISCONNECTED: Short
        val DOCUMENT_POSITION_PRECEDING: Short
        val DOCUMENT_POSITION_FOLLOWING: Short
        val DOCUMENT_POSITION_CONTAINS: Short
        val DOCUMENT_POSITION_CONTAINED_BY: Short
    }

    DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short }

Exposes the JavaScript [SVGAElement](https://developer.mozilla.org/en/docs/Web/API/SVGAElement) to Kotlin

public external abstract class SVGAElement : SVGGraphicsElement, SVGURIReference {
    open val target: SVGAnimatedString
    open val download: SVGAnimatedString
    open val rel: SVGAnimatedString
    open val relList: SVGAnimatedString
    open val hreflang: SVGAnimatedString
    open val type: SVGAnimatedString

    companion object {
        val ELEMENT_NODE: Short
        val ATTRIBUTE_NODE: Short
        val TEXT_NODE: Short
        val CDATA_SECTION_NODE: Short
        val ENTITY_REFERENCE_NODE: Short
        val ENTITY_NODE: Short
        val PROCESSING_INSTRUCTION_NODE: Short
        val COMMENT_NODE: Short
        val DOCUMENT_NODE: Short
        val DOCUMENT_TYPE_NODE: Short
        val DOCUMENT_FRAGMENT_NODE: Short
        val NOTATION_NODE: Short
        val DOCUMENT_POSITION_DISCONNECTED: Short
        val DOCUMENT_POSITION_PRECEDING: Short
        val DOCUMENT_POSITION_FOLLOWING: Short
        val DOCUMENT_POSITION_CONTAINS: Short
        val DOCUMENT_POSITION_CONTAINED_BY: Short
        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short }

    Exposes the JavaScript [SVGViewElement](https://developer.mozilla.org/en/docs/Web/API/SVGViewElement) to Kotlin

    public external abstract class SVGViewElement : SVGElement, SVGFitToViewBox, SVGZoomAndPan {
        companion object {
            val SVG_ZOOMANDPAN_UNKNOWN: Short
            val SVG_ZOOMANDPAN_DISABLE: Short
            val SVG_ZOOMANDPAN_MAGNIFY: Short
            val ELEMENT_NODE: Short
            val ATTRIBUTE_NODE: Short
            val TEXT_NODE: Short
            val CDATA_SECTION_NODE: Short
            val ENTITY_REFERENCE_NODE: Short
            val ENTITY_NODE: Short
            val PROCESSING_INSTRUCTION_NODE: Short
            val COMMENT_NODE: Short
            val DOCUMENT_NODE: Short
            val DOCUMENT_TYPE_NODE: Short
            val DOCUMENT_FRAGMENT_NODE: Short
            val NOTATION_NODE: Short
            val DOCUMENT_POSITION_DISCONNECTED: Short
            val DOCUMENT_POSITION_PRECEDING: Short
            val DOCUMENT_POSITION_FOLLOWING: Short
            val DOCUMENT_POSITION_CONTAINS: Short
            val DOCUMENT_POSITION_CONTAINED_BY: Short
            val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short }

    }

}

"/ * Copyright 2010-2021

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JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n *\n\n// NOTE: THIS FILE IS AUTO-
GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.files\n\nimport
kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\nimport
org.w3c.xhr.*\n\n/**\n * Exposes the JavaScript [Blob](https://developer.mozilla.org/en/docs/Web/API/Blob) to
Kotlin\n *\npublic external open class Blob(blobParts: Array<dynamic> = definedExternally, options:
BlobPropertyBag = definedExternally) : MediaPlayer, ImageBitmapSource {\n    open val size: Number\n    open
val type: String\n
    open val isClosed: Boolean\n    fun slice(start: Int = definedExternally, end: Int = definedExternally, contentType:
String = definedExternally): Blob\n    fun close()\n}\n\npublic external interface BlobPropertyBag {\n    var type:
String? /* = \"\" */\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun BlobPropertyBag(type: String? = \"\"):
BlobPropertyBag {\n    val o = js(\"({})\")\n    o[\"type\"] = type\n    return o\n}\n\n/**\n * Exposes the JavaScript
[File](https://developer.mozilla.org/en/docs/Web/API/File) to Kotlin\n *\npublic external open class File(fileBits:
Array<dynamic>, fileName: String, options: FilePropertyBag = definedExternally) : Blob {\n    open val name:
String\n    open val lastModified: Int\n}\n\npublic external interface FilePropertyBag : BlobPropertyBag {\n    var
lastModified: Int?\n    get() = definedExternally\n
    set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun FilePropertyBag(lastModified: Int? =
undefined, type: String? = \"\"): FilePropertyBag {\n    val o = js(\"({})\")\n    o[\"lastModified\"] = lastModified\n
o[\"type\"] = type\n    return o\n}\n\n/**\n * Exposes the JavaScript
[FileList](https://developer.mozilla.org/en/docs/Web/API/FileList) to Kotlin\n *\npublic external abstract class
FileList : ItemArrayLike<File> {\n    override fun item(index: Int):
File?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun FileList.get(index: Int): File?
= asDynamic()[index]\n\n/**\n * Exposes the JavaScript
[FileReader](https://developer.mozilla.org/en/docs/Web/API/FileReader) to Kotlin\n *\npublic external open class
FileReader : EventTarget {\n    open val readyState: Short\n    open val result: dynamic\n    open val error:
dynamic\n    var onloadstart: ((ProgressEvent) -> dynamic)?\n    var onprogress: ((ProgressEvent) -> dynamic)?\n
var onload: ((Event) -> dynamic)?\n    var onabort: ((Event) -> dynamic)?\n    var onerror: ((Event) ->
dynamic)?\n    var onloadend: ((Event) -> dynamic)?\n    fun readAsArrayBuffer(blob: Blob)\n    fun readAsBinaryString(blob:
Blob)\n    fun readAsText(blob: Blob, label: String = definedExternally)\n    fun readAsDataURL(blob: Blob)\n
fun abort()\n\n    companion object {\n        val EMPTY: Short\n        val LOADING: Short\n        val DONE:
Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[FileReaderSync](https://developer.mozilla.org/en/docs/Web/API/FileReaderSync) to Kotlin\n *\npublic external
open class FileReaderSync {\n    fun readAsArrayBuffer(blob: Blob): ArrayBuffer\n    fun readAsBinaryString(blob:
Blob): String\n    fun readAsText(blob: Blob, label: String = definedExternally): String\n    fun
readAsDataURL(blob: Blob): String\n}\n\n/*\n * Copyright
2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n *\n\n// NOTE: THIS FILE IS
AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage
org.w3c.notifications\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.events.*\nimport
org.w3c.workers.*\n\n/**\n * Exposes the JavaScript
[Notification](https://developer.mozilla.org/en/docs/Web/API/Notification) to Kotlin\n *\npublic external open
class Notification(title: String, options: NotificationOptions = definedExternally) : EventTarget {\n    var onclick:
((MouseEvent) -> dynamic)?\n    var onerror: ((Event) -> dynamic)?\n    open val title: String\n    open val dir:
NotificationDirection\n    open val lang: String\n    open val body: String\n    open val tag: String\n    open val

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image: String\n open val icon: String\n open val badge: String\n
open val sound: String\n open val vibrate: Array<out Int>\n open val timestamp: Number\n open val renotify:
Boolean\n open val silent: Boolean\n open val noscreen: Boolean\n open val requireInteraction: Boolean\n
open val sticky: Boolean\n open val data: Any?\n open val actions: Array<out NotificationAction>\n fun
close()\n\n companion object {\n val permission: NotificationPermission\n val maxActions: Int\n fun
requestPermission(deprecatedCallback: (NotificationPermission) -> Unit) = definedExternally\n
Promise<NotificationPermission>\n }\n\n\npublic external interface NotificationOptions {\n var dir:
NotificationDirection? /* = NotificationDirection.AUTO */\n get() = definedExternally\n set(value) =
definedExternally\n var lang: String? /* = "" */\n get() = definedExternally\n set(value) =
definedExternally\n var body: String? /* = "" */\n get() = definedExternally\n set(value)
= definedExternally\n var tag: String? /* = "" */\n get() = definedExternally\n set(value) =
definedExternally\n var image: String?\n get() = definedExternally\n set(value) = definedExternally\n
var icon: String?\n get() = definedExternally\n set(value) = definedExternally\n var badge: String?\n
get() = definedExternally\n set(value) = definedExternally\n var sound: String?\n get() =
definedExternally\n set(value) = definedExternally\n var vibrate: dynamic\n get() = definedExternally\n
set(value) = definedExternally\n var timestamp: Number?\n get() = definedExternally\n set(value) =
definedExternally\n var renotify: Boolean? /* = false */\n get() = definedExternally\n set(value) =
definedExternally\n var silent: Boolean? /* = false */\n get() = definedExternally\n set(value) =
definedExternally\n var noscreen: Boolean? /* = false
*/\n get() = definedExternally\n set(value) = definedExternally\n var requireInteraction: Boolean? /* =
false */\n get() = definedExternally\n set(value) = definedExternally\n var sticky: Boolean? /* = false */\n
get() = definedExternally\n set(value) = definedExternally\n var data: Any? /* = null */\n get() =
definedExternally\n set(value) = definedExternally\n var actions: Array<NotificationAction>? /* = arrayOf()
*/\n get() = definedExternally\n set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun NotificationOptions(dir:
NotificationDirection? = NotificationDirection.AUTO, lang: String? = \"\", body: String? = \"\", tag: String? = \"\",
image: String? = undefined, icon: String? = undefined, badge: String? = undefined, sound: String? = undefined,
vibrate: dynamic = undefined, timestamp: Number? = undefined, renotify:
Boolean? = false, silent: Boolean? = false, noscreen: Boolean? = false, requireInteraction: Boolean? = false, sticky:
Boolean? = false, data: Any? = null, actions: Array<NotificationAction>? = arrayOf()): NotificationOptions {\n
val o = js(\"({})\")\n o[\"dir\"] = dir\n o[\"lang\"] = lang\n o[\"body\"] = body\n o[\"tag\"] = tag\n
o[\"image\"] = image\n o[\"icon\"] = icon\n o[\"badge\"] = badge\n o[\"sound\"] = sound\n o[\"vibrate\"] =
vibrate\n o[\"timestamp\"] = timestamp\n o[\"renotify\"] = renotify\n o[\"silent\"] = silent\n o[\"noscreen\"] =
noscreen\n o[\"requireInteraction\"] = requireInteraction\n o[\"sticky\"] = sticky\n o[\"data\"] = data\n
o[\"actions\"] = actions\n return o\n}\n\n\npublic external interface NotificationAction {\n var action: String?\n
var title: String?\n var icon: String?\n get() = definedExternally\n set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun NotificationAction(action: String?,
title: String?, icon: String? = undefined): NotificationAction {\n val o = js(\"({})\")\n o[\"action\"] = action\n
o[\"title\"] = title\n o[\"icon\"] = icon\n return o\n}\n\n\npublic external interface GetNotificationOptions {\n var
tag: String? /* = "" */\n get() = definedExternally\n set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun GetNotificationOptions(tag: String? =
\" \"): GetNotificationOptions {\n val o = js(\"({})\")\n o[\"tag\"] = tag\n return o\n}\n\n\n* Exposes the
JavaScript [NotificationEvent](https://developer.mozilla.org/en/docs/Web/API/NotificationEvent) to Kotlin\n
*/\n\n\npublic external open class NotificationEvent(type: String, eventInitDict: NotificationEventInit) :
ExtendableEvent {\n open val notification: Notification\n

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open val action: String\n\n companion object {\n    val NONE: Short\n    val CAPTURING_PHASE: Short\n    val AT_TARGET: Short\n    val BUBBLING_PHASE: Short\n } }\n\npublic external interface
NotificationEventInit : ExtendableEventInit {\n    var notification: Notification?\n    var action: String? /* = \"\" */\n    get() = definedExternally\n    set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun NotificationEventInit(notification:
Notification?, action: String? = \"\", bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? =
false): NotificationEventInit {\n    val o = js(\"({})\")\n    o[\"notification\"] = notification\n    o[\"action\"] =
action\n    o[\"bubbles\"] = bubbles\n    o[\"cancelable\"] = cancelable\n    o[\"composed\"] = composed\n    return
o\n}\n\n/* please, don't implement this interface!
*\n\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic
external interface NotificationPermission {\n    companion object\n}\n\npublic inline val
NotificationPermission.Companion.DEFAULT: NotificationPermission get() =
\"default\".asDynamic().unsafeCast<NotificationPermission>()\n\npublic inline val
NotificationPermission.Companion.DENIED: NotificationPermission get() =
\"denied\".asDynamic().unsafeCast<NotificationPermission>()\n\npublic inline val
NotificationPermission.Companion.GRANTED: NotificationPermission get() =
\"granted\".asDynamic().unsafeCast<NotificationPermission>()\n\n/* please, don't implement this interface!
*\n\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface NotificationDirection {\n    companion object\n}\n\npublic inline val
NotificationDirection.Companion.AUTO: NotificationDirection get() =
\"auto\".asDynamic().unsafeCast<NotificationDirection>()\n\npublic inline val
NotificationDirection.Companion.LTR: NotificationDirection get()
= \"ltr\".asDynamic().unsafeCast<NotificationDirection>()\n\npublic inline val
NotificationDirection.Companion.RTL: NotificationDirection get() =
\"rtl\".asDynamic().unsafeCast<NotificationDirection>()\n\n/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n *\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n\n//
See github.com/kotlin/dukat for details\n\npackage org.w3c.workers\n\nimport kotlin.js.*\nimport
org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\nimport org.w3c.fetch.*\nimport
org.w3c.notifications.*\n\n/**\n * Exposes the JavaScript
[ServiceWorker](https://developer.mozilla.org/en/docs/Web/API/ServiceWorker) to Kotlin\n *\n\npublic external
abstract class ServiceWorker : EventTarget, AbstractWorker, UnionMessagePortOrServiceWorker,
UnionClientOrMessagePortOrServiceWorker {\n    open val scriptURL:
String\n    open val state: ServiceWorkerState\n    open var onstatechange: ((Event) -> dynamic)?\n    fun
postMessage(message: Any?, transfer: Array<dynamic> = definedExternally)\n}\n\n/**\n * Exposes the JavaScript
[ServiceWorkerRegistration](https://developer.mozilla.org/en/docs/Web/API/ServiceWorkerRegistration) to
Kotlin\n *\n\npublic external abstract class ServiceWorkerRegistration : EventTarget {\n    open val installing:
ServiceWorker?\n    open val waiting: ServiceWorker?\n    open val active: ServiceWorker?\n    open val scope:
String\n    open var onupdatefound: ((Event) -> dynamic)?\n    open val APISpace: dynamic\n    fun update():
Promise<Unit>\n    fun unregister(): Promise<Boolean>\n    fun showNotification(title: String, options:
NotificationOptions = definedExternally): Promise<Unit>\n    fun getNotifications(filter: GetNotificationOptions =
definedExternally): Promise<Array<Notification>>\n    fun methodName(): Promise<dynamic>\n}\n\n/**\n *
Exposes the JavaScript
[ServiceWorkerContainer](https://developer.mozilla.org/en/docs/Web/API/ServiceWorkerContainer) to Kotlin\n\n
*\n\npublic external abstract class ServiceWorkerContainer : EventTarget {\n    open val controller:
ServiceWorker?\n    open val ready: Promise<ServiceWorkerRegistration>\n    open var oncontrollerchange:
((Event) -> dynamic)?\n    open var onmessage: ((MessageEvent) -> dynamic)?\n    fun register(scriptURL: String,
options: RegistrationOptions = definedExternally): Promise<ServiceWorkerRegistration>\n    fun

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getRegistration(clientURL: String = definedExternally): Promise<Any?>\n fun getRegistrations():
Promise<Array<ServiceWorkerRegistration>>\n fun startMessages()\n\npublic external interface
RegistrationOptions {\n var scope: String?\n get() = definedExternally\n set(value) = definedExternally\n
var type: WorkerType? /* = WorkerType.CLASSIC */\n get() = definedExternally\n set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun RegistrationOptions(scope: String? =
undefined, type: WorkerType? = WorkerType.CLASSIC): RegistrationOptions {\n val o = js(\"({})\")\n
o[\"scope\"] = scope\n o[\"type\"] = type\n return o\n}\n\n/**\n * Exposes the JavaScript
[ServiceWorkerMessageEvent](https://developer.mozilla.org/en/docs/Web/API/ServiceWorkerMessageEvent) to
Kotlin\n */\npublic external open class ServiceWorkerMessageEvent(type: String, eventInitDict:
ServiceWorkerMessageEventInit = definedExternally) : Event {\n open val data: Any?\n open val origin:
String\n open val lastEventId: String\n open val source: UnionMessagePortOrServiceWorker?\n open val
ports: Array<out MessagePort>?\n companion object {\n val NONE: Short\n val
CAPTURING_PHASE: Short\n val AT_TARGET: Short\n val BUBBLING_PHASE: Short\n
}\n}\n\npublic external interface ServiceWorkerMessageEventInit : EventInit {\n
var data: Any?\n get() = definedExternally\n set(value) = definedExternally\n var origin: String?\n
get() = definedExternally\n set(value) = definedExternally\n var lastEventId: String?\n get() =
definedExternally\n set(value) = definedExternally\n var source: UnionMessagePortOrServiceWorker?\n
get() = definedExternally\n set(value) = definedExternally\n var ports: Array<MessagePort>?\n get() =
definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ServiceWorkerMessageEventInit(data:
Any? = undefined, origin: String? = undefined, lastEventId: String? = undefined, source:
UnionMessagePortOrServiceWorker? = undefined, ports: Array<MessagePort>? = undefined, bubbles: Boolean? =
false, cancelable: Boolean? = false, composed: Boolean? = false): ServiceWorkerMessageEventInit {\n val o =
js(\"({})\")\n
o[\"data\"] = data\n o[\"origin\"] = origin\n o[\"lastEventId\"] = lastEventId\n o[\"source\"] = source\n
o[\"ports\"] = ports\n o[\"bubbles\"] = bubbles\n o[\"cancelable\"] = cancelable\n o[\"composed\"] =
composed\n return o\n}\n\n/**\n * Exposes the JavaScript
[ServiceWorkerGlobalScope](https://developer.mozilla.org/en/docs/Web/API/ServiceWorkerGlobalScope) to
Kotlin\n */\npublic external abstract class ServiceWorkerGlobalScope : WorkerGlobalScope {\n open val clients:
Clients\n open val registration: ServiceWorkerRegistration\n open var oninstall: ((Event) -> dynamic)?\n open
var onactivate: ((Event) -> dynamic)?\n open var onfetch: ((FetchEvent) -> dynamic)?\n open var
onforeignfetch: ((Event) -> dynamic)?\n open var onmessage: ((MessageEvent) -> dynamic)?\n open var
onnotificationclick: ((NotificationEvent) -> dynamic)?\n open var onnotificationclose: ((NotificationEvent) ->
dynamic)?\n open var onfunctionalevent: ((Event)
-> dynamic)?\n fun skipWaiting(): Promise<Unit>\n}\n\n/**\n * Exposes the JavaScript
[Client](https://developer.mozilla.org/en/docs/Web/API/Client) to Kotlin\n */\npublic external abstract class Client :
UnionClientOrMessagePortOrServiceWorker {\n open val url: String\n open val frameType: FrameType\n
open val id: String\n fun postMessage(message: Any?, transfer: Array<dynamic> = definedExternally)\n}\n\n/**\n
* Exposes the JavaScript [WindowClient](https://developer.mozilla.org/en/docs/Web/API/WindowClient) to
Kotlin\n */\npublic external abstract class WindowClient : Client {\n open val visibilityState: dynamic\n open
val focused: Boolean\n fun focus(): Promise<WindowClient>\n fun navigate(url: String):
Promise<WindowClient>\n}\n\n/**\n * Exposes the JavaScript
[Clients](https://developer.mozilla.org/en/docs/Web/API/Clients) to Kotlin\n */\npublic external abstract class
Clients {\n fun get(id: String): Promise<Any?>\n fun matchAll(options: ClientQueryOptions
= definedExternally): Promise<Array<Client>>\n fun openWindow(url: String): Promise<WindowClient?>\n
fun claim(): Promise<Unit>\n}\n\npublic external interface ClientQueryOptions {\n var includeUncontrolled:
Boolean? /* = false */\n get() = definedExternally\n set(value) = definedExternally\n var type:

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ClientType? /* = ClientType.WINDOW */\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress(\\"INVISIBLE_REFERENCE\"",
\\"INVISIBLE_MEMBER"\)\n@kotlin.internal.InlineOnly\npublic inline fun
ClientQueryOptions(includeUncontrolled: Boolean? = false, type: ClientType? = ClientType.WINDOW):
ClientQueryOptions {\n    val o = js(\\"({})"\)\n    o[\"includeUncontrolled\"] = includeUncontrolled\n    o[\"type\"] =
type\n    return o\n}\n\n/**\n * Exposes the JavaScript
[ExtendableEvent](https://developer.mozilla.org/en/docs/Web/API/ExtendableEvent) to Kotlin\n */\npublic external
open class ExtendableEvent(type: String, eventInitDict:
ExtendableEventInit = definedExternally) : Event {\n    fun waitUntil(f: Promise<Any?>)\n\n    companion object
{\n        val NONE: Short\n        val CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n        val
BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface ExtendableEventInit :
EventInit\n\n@Suppress(\\"INVISIBLE_REFERENCE\"",
\\"INVISIBLE_MEMBER"\)\n@kotlin.internal.InlineOnly\npublic inline fun ExtendableEventInit(bubbles:
Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): ExtendableEventInit {\n    val o =
js(\\"({})"\)\n    o[\"bubbles\"] = bubbles\n    o[\"cancelable\"] = cancelable\n    o[\"composed\"] = composed\n
return o\n}\n\n/**\n * Exposes the JavaScript
[InstallEvent](https://developer.mozilla.org/en/docs/Web/API/InstallEvent) to Kotlin\n */\npublic external open
class InstallEvent(type: String, eventInitDict: ExtendableEventInit = definedExternally) : ExtendableEvent {\n    fun
registerForeignFetch(options: ForeignFetchOptions)\n\n    companion object {\n        val NONE: Short\n        val CAPTURING_PHASE: Short\n        val AT_TARGET:
Short\n        val BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface ForeignFetchOptions {\n    var
scopes: Array<String>?\n    var origins: Array<String>?\n}\n\n@Suppress(\\"INVISIBLE_REFERENCE\"",
\\"INVISIBLE_MEMBER"\)\n@kotlin.internal.InlineOnly\npublic inline fun ForeignFetchOptions(scopes:
Array<String>?, origins: Array<String>?): ForeignFetchOptions {\n    val o = js(\\"({})"\)\n    o[\"scopes\"] =
scopes\n    o[\"origins\"] = origins\n    return o\n}\n\n/**\n * Exposes the JavaScript
[FetchEvent](https://developer.mozilla.org/en/docs/Web/API/FetchEvent) to Kotlin\n */\npublic external open class
FetchEvent(type: String, eventInitDict: FetchEventInit) : ExtendableEvent {\n    open val request: Request\n    open
val clientId: String?\n    open val isReload: Boolean\n    fun respondWith(r: Promise<Response>)\n\n    companion
object {\n        val NONE:
Short\n        val CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n        val BUBBLING_PHASE:
Short\n    }\n}\n\npublic external interface FetchEventInit : ExtendableEventInit {\n    var request: Request?\n    var
clientId: String? /* = null */\n    get() = definedExternally\n    set(value) = definedExternally\n    var isReload:
Boolean? /* = false */\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress(\\"INVISIBLE_REFERENCE\"",
\\"INVISIBLE_MEMBER"\)\n@kotlin.internal.InlineOnly\npublic inline fun FetchEventInit(request: Request?,
clientId: String? = null, isReload: Boolean? = false, bubbles: Boolean? = false, cancelable: Boolean? = false,
composed: Boolean? = false): FetchEventInit {\n    val o = js(\\"({})"\)\n    o[\"request\"] = request\n    o[\"clientId\"]
= clientId\n    o[\"isReload\"] = isReload\n    o[\"bubbles\"] = bubbles\n    o[\"cancelable\"] = cancelable\n
o[\"composed\"] = composed\n    return o\n}\n\npublic external
open class ForeignFetchEvent(type: String, eventInitDict: ForeignFetchEventInit) : ExtendableEvent {\n    open val
request: Request\n    open val origin: String\n    fun respondWith(r: Promise<ForeignFetchResponse>)\n\n    companion
object {\n        val NONE: Short\n        val CAPTURING_PHASE: Short\n        val AT_TARGET:
Short\n        val BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface ForeignFetchEventInit :
ExtendableEventInit {\n    var request: Request?\n    var origin: String? /* = \"null\" */\n    get() =
definedExternally\n    set(value) = definedExternally\n}\n\n@Suppress(\\"INVISIBLE_REFERENCE\"",
\\"INVISIBLE_MEMBER"\)\n@kotlin.internal.InlineOnly\npublic inline fun ForeignFetchEventInit(request:
Request?, origin: String? = \"null\", bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? =
false): ForeignFetchEventInit {\n    val o = js(\\"({})"\)\n    o[\"request\"] = request\n    o[\"origin\"] = origin\n

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o["bubbles"] = bubbles\n
  o["cancelable"] = cancelable\n  o["composed"] = composed\n  return o\n}\n\npublic external interface
ForeignFetchResponse {\n  var response: Response?\n  var origin: String?\n  get() = definedExternally\n
set(value) = definedExternally\n  var headers: Array<String>?\n  get() = definedExternally\n  set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ForeignFetchResponse(response:
Response?, origin: String? = undefined, headers: Array<String>? = undefined): ForeignFetchResponse {\n  val o =
js(\"({})\")\n  o["response"] = response\n  o["origin"] = origin\n  o["headers"] = headers\n  return
o\n}\n\n/**\n * Exposes the JavaScript
[ExtendableMessageEvent](https://developer.mozilla.org/en/docs/Web/API/ExtendableMessageEvent) to Kotlin\n
*/\npublic external open class ExtendableMessageEvent(type: String, eventInitDict: ExtendableMessageEventInit
= definedExternally) : ExtendableEvent {\n  open val data: Any?\n  open val origin: String\n  open val
lastEventId: String\n  open val source: UnionClientOrMessagePortOrServiceWorker?\n  open val ports:
Array<out MessagePort>?\n\n  companion object {\n    val NONE: Short\n    val CAPTURING_PHASE:
Short\n    val AT_TARGET: Short\n    val BUBBLING_PHASE: Short\n  }\n}\n\npublic external interface
ExtendableMessageEventInit : ExtendableEventInit {\n  var data: Any?\n  get() = definedExternally\n
set(value) = definedExternally\n  var origin: String?\n  get() = definedExternally\n  set(value) =
definedExternally\n  var lastEventId: String?\n  get() = definedExternally\n  set(value) =
definedExternally\n  var source: UnionClientOrMessagePortOrServiceWorker?\n  get() = definedExternally\n
set(value) = definedExternally\n  var ports: Array<MessagePort>?\n  get() = definedExternally\n
set(value)
= definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ExtendableMessageEventInit(data:
Any? = undefined, origin: String? = undefined, lastEventId: String? = undefined, source:
UnionClientOrMessagePortOrServiceWorker? = undefined, ports: Array<MessagePort>? = undefined, bubbles:
Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): ExtendableMessageEventInit {\n
val o = js(\"({})\")\n  o["data"] = data\n  o["origin"] = origin\n  o["lastEventId"] = lastEventId\n
o["source"] = source\n  o["ports"] = ports\n  o["bubbles"] = bubbles\n  o["cancelable"] = cancelable\n
o["composed"] = composed\n  return o\n}\n\n/**\n * Exposes the JavaScript
[Cache](https://developer.mozilla.org/en/docs/Web/API/Cache) to Kotlin\n
*/\npublic external abstract class Cache
{\n  fun match(request: dynamic, options: CacheQueryOptions = definedExternally): Promise<Any?>\n
  fun matchAll(request: dynamic = definedExternally, options: CacheQueryOptions = definedExternally):
Promise<Array<Response>>\n  fun add(request: dynamic): Promise<Unit>\n  fun addAll(requests:
Array<dynamic>): Promise<Unit>\n  fun put(request: dynamic, response: Response): Promise<Unit>\n  fun
delete(request: dynamic, options: CacheQueryOptions = definedExternally): Promise<Boolean>\n  fun
keys(request: dynamic = definedExternally, options: CacheQueryOptions = definedExternally):
Promise<Array<Request>>\n}\n\npublic external interface CacheQueryOptions {\n  var ignoreSearch: Boolean? /*
= false */\n  get() = definedExternally\n  set(value) = definedExternally\n  var ignoreMethod: Boolean? /* =
false */\n  get() = definedExternally\n  set(value) = definedExternally\n  var ignoreVary: Boolean? /* =
false */\n  get() = definedExternally\n  set(value) = definedExternally\n  var cacheName: String?\n
get() = definedExternally\n
set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun CacheQueryOptions(ignoreSearch:
Boolean? = false, ignoreMethod: Boolean? = false, ignoreVary: Boolean? = false, cacheName: String? = undefined):
CacheQueryOptions {\n  val o = js(\"({})\")\n  o["ignoreSearch"] = ignoreSearch\n  o["ignoreMethod"] =
ignoreMethod\n  o["ignoreVary"] = ignoreVary\n  o["cacheName"] = cacheName\n  return o\n}\n\npublic
external interface CacheBatchOperation {\n  var type: String?\n  get() = definedExternally\n  set(value) =
definedExternally\n  var request: Request?\n  get() = definedExternally\n  set(value) = definedExternally\n

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var response: Response? \n    get() = definedExternally \n    set(value) = definedExternally \n    var options:
CacheQueryOptions? \n    get() = definedExternally \n    set(value) =
definedExternally \n} \n\n@Suppress(\\"INVISIBLE_REFERENCE\\",
\\"INVISIBLE_MEMBER\\") \n\n@kotlin.internal.InlineOnly \npublic inline fun CacheBatchOperation(type: String? =
undefined, request: Request? = undefined, response: Response? = undefined, options: CacheQueryOptions? =
undefined): CacheBatchOperation { \n    val o = js(\\"({})\\") \n    o[\\\"type\\\"] = type \n    o[\\\"request\\\"] = request \n
o[\\\"response\\\"] = response \n    o[\\\"options\\\"] = options \n    return o \n} \n\n/** \n * Exposes the JavaScript
[CacheStorage](https://developer.mozilla.org/en/docs/Web/API/CacheStorage) to Kotlin \n */ \npublic external
abstract class CacheStorage { \n    fun match(request: dynamic, options: CacheQueryOptions = definedExternally):
Promise<Any?> \n    fun has(cacheName: String): Promise<Boolean> \n    fun open(cacheName: String):
Promise<Cache> \n    fun delete(cacheName: String): Promise<Boolean> \n    fun keys():
Promise<Array<String>> \n} \n\npublic external open class FunctionalEvent : ExtendableEvent { \n    companion
object { \n        val NONE: Short \n
        val CAPTURING_PHASE: Short \n        val AT_TARGET: Short \n        val BUBBLING_PHASE: Short \n
    } \n} \n\npublic external interface UnionMessagePortOrServiceWorker \n\npublic external interface
UnionClientOrMessagePortOrServiceWorker \n\n/* please, don't implement this interface!
*/ \n\n@JsName(\\"null\\") \n@Suppress(\\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\\") \n\npublic external
interface ServiceWorkerState { \n    companion object \n} \n\npublic inline val
ServiceWorkerState.Companion.INSTALLING: ServiceWorkerState get() =
\\"installing\\".asDynamic().unsafeCast<ServiceWorkerState>() \n\npublic inline val
ServiceWorkerState.Companion.INSTALLED: ServiceWorkerState get() =
\\"installed\\".asDynamic().unsafeCast<ServiceWorkerState>() \n\npublic inline val
ServiceWorkerState.Companion.ACTIVATING: ServiceWorkerState get() =
\\"activating\\".asDynamic().unsafeCast<ServiceWorkerState>() \n\npublic inline val
ServiceWorkerState.Companion.ACTIVATED: ServiceWorkerState get() =
\\"activated\\".asDynamic().unsafeCast<ServiceWorkerState>() \n\npublic
inline val ServiceWorkerState.Companion.REDUNDANT: ServiceWorkerState get() =
\\"redundant\\".asDynamic().unsafeCast<ServiceWorkerState>() \n\n/* please, don't implement this interface!
*/ \n\n@JsName(\\"null\\") \n@Suppress(\\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\\") \n\npublic external
interface FrameType { \n    companion object \n} \n\npublic inline val FrameType.Companion.AUXILIARY:
FrameType get() =\\"auxiliary\\".asDynamic().unsafeCast<FrameType>() \n\npublic inline val
FrameType.Companion.TOP_LEVEL: FrameType get() =\\"top-
level\\".asDynamic().unsafeCast<FrameType>() \n\npublic inline val FrameType.Companion.NESTED: FrameType
get() =\\"nested\\".asDynamic().unsafeCast<FrameType>() \n\npublic inline val FrameType.Companion.NONE:
FrameType get() =\\"none\\".asDynamic().unsafeCast<FrameType>() \n\n/* please, don't implement this interface!
*/ \n\n@JsName(\\"null\\") \n@Suppress(\\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\\") \n\npublic external
interface ClientType { \n    companion object \n} \n\npublic
inline val ClientType.Companion.WINDOW: ClientType get() =
\\"window\\".asDynamic().unsafeCast<ClientType>() \n\npublic inline val ClientType.Companion.WORKER:
ClientType get() =\\"worker\\".asDynamic().unsafeCast<ClientType>() \n\npublic inline val
ClientType.Companion.SHAREDWORKER: ClientType get() =
\\"sharedworker\\".asDynamic().unsafeCast<ClientType>() \n\npublic inline val ClientType.Companion.ALL:
ClientType get() =\\"all\\".asDynamic().unsafeCast<ClientType>() \n\n/* \n * Copyright 2010-2021 JetBrains s.r.o. and
Kotlin Programming Language contributors. \n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file. \n */ \n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT
EDIT! \n\n// See github.com/kotlin/dukat for details \n\npackage org.w3c.xhr \n\nimport kotlin.js.* \nimport
org.khronos.webgl.* \nimport org.w3c.dom.* \nimport org.w3c.dom.events.* \nimport org.w3c.files.* \n\n/** \n *
Exposes the JavaScript

```



```

[XMLHttpRequestEventTarget](https://developer.mozilla.org/en/docs/Web/API/XMLHttpRequestEventTarget)
to Kotlin\n *\npublic external abstract class XMLHttpRequestEventTarget : EventTarget {\n  open var
onloadstart: ((ProgressEvent) -> dynamic)?\n  open var onprogress: ((ProgressEvent) -> dynamic)?\n  open var
onabort: ((Event) -> dynamic)?\n  open var onerror: ((Event) -> dynamic)?\n  open var onload: ((Event) ->
dynamic)?\n  open var ontimeout: ((Event) -> dynamic)?\n  open var onloadend: ((Event) ->
dynamic)?\n}\n\npublic external abstract class XMLHttpRequestUpload : XMLHttpRequestEventTarget\n\n/**\n *
Exposes the JavaScript [XMLHttpRequest](https://developer.mozilla.org/en/docs/Web/API/XMLHttpRequest) to
Kotlin\n *\npublic external open class XMLHttpRequest : XMLHttpRequestEventTarget {\n  var
onreadystatechange: ((Event) -> dynamic)?\n  open val readyState: Short\n  var timeout: Int\n  var
withCredentials: Boolean\n  open val upload: XMLHttpRequestUpload\n  open val responseURL: String\n
  open val status: Short\n  open val statusText: String\n  var responseType: XMLHttpRequestResponseType\n
open val response: Any?\n  open val responseText: String\n  open val responseXML: Document?\n  fun
open(method: String, url: String)\n  fun open(method: String, url: String, async: Boolean, username: String? =
definedExternally, password: String? = definedExternally)\n  fun setRequestHeader(name: String, value: String)\n
fun send(body: dynamic = definedExternally)\n  fun abort()\n  fun getResponseHeader(name: String): String?\n
fun getAllResponseHeaders(): String\n  fun overrideMimeType(mime: String)\n\n  companion object {\n    val
UNSENT: Short\n    val OPENED: Short\n    val HEADERS_RECEIVED: Short\n    val LOADING:
Short\n    val DONE: Short\n  }\n}\n\n/**\n * Exposes the JavaScript
[FormData](https://developer.mozilla.org/en/docs/Web/API/FormData) to Kotlin\n *\npublic external open class
FormData(form: HTMLFormElement
= definedExternally) {\n  fun append(name: String, value: String)\n  fun append(name: String, value: Blob,
filename: String = definedExternally)\n  fun delete(name: String)\n  fun get(name: String): dynamic\n  fun
getAll(name: String): Array<dynamic>\n  fun has(name: String): Boolean\n  fun set(name: String, value: String)\n
fun set(name: String, value: Blob, filename: String = definedExternally)\n}\n\n/**\n * Exposes the JavaScript
[ProgressEvent](https://developer.mozilla.org/en/docs/Web/API/ProgressEvent) to Kotlin\n *\npublic external open
class ProgressEvent(type: String, eventInitDict: ProgressEventInit = definedExternally) : Event {\n  open val
lengthComputable: Boolean\n  open val loaded: Number\n  open val total: Number\n\n  companion object {\n
val NONE: Short\n    val CAPTURING_PHASE: Short\n    val AT_TARGET: Short\n    val
BUBBLING_PHASE: Short\n  }\n}\n\npublic external interface ProgressEventInit : EventInit {\n  var
lengthComputable:
Boolean? /* = false */\n  get() = definedExternally\n  set(value) = definedExternally\n  var loaded:
Number? /* = 0 */\n  get() = definedExternally\n  set(value) = definedExternally\n  var total: Number? /* =
0 */\n  get() = definedExternally\n  set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ProgressEventInit(lengthComputable:
Boolean? = false, loaded: Number? = 0, total: Number? = 0, bubbles: Boolean? = false, cancelable: Boolean? =
false, composed: Boolean? = false): ProgressEventInit {\n  val o = js(\"{\")\n  o[\"lengthComputable\"] =
lengthComputable\n  o[\"loaded\"] = loaded\n  o[\"total\"] = total\n  o[\"bubbles\"] = bubbles\n
o[\"cancelable\"] = cancelable\n  o[\"composed\"] = composed\n  return o\n}\n\n/* please, don't implement this
interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic
external interface XMLHttpRequestResponseType {\n  companion object\n}\n\npublic inline val
XMLHttpRequestResponseType.Companion.EMPTY: XMLHttpRequestResponseType get() =
\"\".asDynamic().unsafeCast<XMLHttpRequestResponseType>()\n\npublic inline val
XMLHttpRequestResponseType.Companion.ARRAYBUFFER: XMLHttpRequestResponseType get() =
\"arraybuffer\".asDynamic().unsafeCast<XMLHttpRequestResponseType>()\n\npublic inline val
XMLHttpRequestResponseType.Companion.BLOB: XMLHttpRequestResponseType get() =
\"blob\".asDynamic().unsafeCast<XMLHttpRequestResponseType>()\n\npublic inline val
XMLHttpRequestResponseType.Companion.DOCUMENT: XMLHttpRequestResponseType get() =

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\"document\".asDynamic().unsafeCast<XMLHttpRequestResponseType>()\n\npublic inline val
XMLHttpRequestResponseType.Companion.JSON: XMLHttpRequestResponseType get() =
\"json\".asDynamic().unsafeCast<XMLHttpRequestResponseType>()\n\npublic inline val
XMLHttpRequestResponseType.Companion.TEXT: XMLHttpRequestResponseType
get() = \"text\".asDynamic().unsafeCast<XMLHttpRequestResponseType>()\", /*\n * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\nimport
kotlin.annotation.AnnotationRetention.BINARY\n\nimport kotlin.annotation.AnnotationRetention.SOURCE\n\nimport
kotlin.annotation.AnnotationTarget.*\n\nimport kotlin.internal.RequireKotlin\n\nimport
kotlin.internal.RequireKotlinVersionKind\n\nimport kotlin.reflect.KClass\n\n\n/**\n * Signals that the annotated
annotation class is a marker of an experimental API.\n * \n * Any declaration annotated with that marker is
considered an experimental declaration\n * and its call sites should accept the experimental aspect of it either by
using [UseExperimental],\n * or by being annotated with that marker themselves, effectively causing further
propagation of that experimental aspect.\n * \n * This class
is deprecated in favor of a more general approach provided by [RequiresOptIn]/[OptIn].\n
*\n * @Target(ANNOTATION_CLASS)\n * @Retention(BINARY)\n * @SinceKotlin(\"1.2\")\n * @RequireKotlin(\"1.2.50
\", versionKind = RequireKotlinVersionKind.COMPILER_VERSION)\n * @DeprecatedSinceKotlin(warningSince =
\"1.4\", errorSince = \"1.6\")\n * @Deprecated(\"Please use RequiresOptIn instead.\")\n * \n * public annotation class
Experimental(val level: Level = Level.ERROR) {\n *     /**\n *      * Severity of the diagnostic that should be reported on
usages of experimental API which did not explicitly accept the experimental aspect\n *      * of that API either by using
[UseExperimental] or by being annotated with the corresponding marker annotation.\n *      * \n *      * public enum class
Level {\n *          /** Specifies that a warning should be reported on incorrect usages of this experimental API. *\n
*          WARNING,\n *          /** Specifies that an error should be reported on incorrect usages of this experimental
API. *\n
*          ERROR,\n
*      * \n *      * } }\n * \n * Allows to use experimental API denoted by the given markers in the annotated file,
declaration, or
expression.\n * If a declaration is annotated with [UseExperimental], its usages are not required to opt-in to that
experimental API.\n * \n * This class is deprecated in favor of a more general approach provided by
[RequiresOptIn]/[OptIn].\n * \n * @Target(\n *     CLASS, PROPERTY, LOCAL_VARIABLE,
VALUE_PARAMETER, CONSTRUCTOR, FUNCTION, PROPERTY_GETTER, PROPERTY_SETTER,
EXPRESSION, FILE,
TYPEALIAS)\n * \n * @Retention(SOURCE)\n * @SinceKotlin(\"1.2\")\n * @RequireKotlin(\"1.2.50\", versionKind =
RequireKotlinVersionKind.COMPILER_VERSION)\n * @DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince =
\"1.6\")\n * @Deprecated(\"Please use OptIn instead.\", ReplaceWith(\"OptIn(*markerClass)\",
\"kotlin.OptIn\"))\n * \n * public annotation class UseExperimental(\n *     vararg val markerClass: KClass<out
Annotation>)\n * \n * @Target(CLASS, PROPERTY, CONSTRUCTOR, FUNCTION,
TYPEALIAS)\n * \n * @Retention(BINARY)\n * \n * internal
annotation class WasExperimental(\n *     vararg val markerClass: KClass<out Annotation>)\n * \n * \", package
kotlin\n * \n * import kotlin.annotation.AnnotationTarget.*\n * \n * \n * /**\n * This annotation marks the standard library
API that is considered experimental and is not subject to the\n * [general compatibility
guarantees](https://kotlinlang.org/docs/reference/evolution/components-stability.html) given for the standard
library:\n * the behavior of such API may be changed or the API may be removed completely in any further
release.\n * \n * > Beware using the annotated API especially if you're developing a library, since your library might
become binary incompatible\n * with the future versions of the standard library.\n * \n * Any usage of a declaration
annotated with `@ExperimentalStdlibApi` must be accepted either by\n * annotating that usage with the [OptIn]
annotation, e.g. `@OptIn(ExperimentalStdlibApi::class)`,\n * or by using the compiler argument `--opt-in=kotlin.ExperimentalStdlibApi`.\n
*\n * @RequiresOptIn(level =
RequiresOptIn.Level.ERROR)\n * @Retention(AnnotationRetention.BINARY)\n * @Target(\n *     CLASS,\n

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ANNOTATION\_CLASS,\n PROPERTY,\n FIELD,\n LOCAL\_VARIABLE,\n VALUE\_PARAMETER,\n CONSTRUCTOR,\n FUNCTION,\n PROPERTY\_GETTER,\n PROPERTY\_SETTER,\n TYPEALIAS)\n\n@MustBeDocumented\n@SinceKotlin("1.3")\n\npublic annotation class ExperimentalStdlibApi\n", /\*\n \* Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n \*/\n\npackage kotlin\n\nimport kotlin.annotation.AnnotationTarget.\*\nimport kotlin.experimental.ExperimentalTypeInference\n\n/\*\*\n \* Allows to infer generic type arguments of a function from the calls in the annotated function parameter of that function.\n \* When this annotation is placed on a generic function parameter of a function,\n \* it enables to infer the type arguments of that generic function from the lambda body passed to that parameter.\n \* The calls that affect inference are either members of the receiver type of an annotated function parameter or\n \* extensions for that type. The extensions must be themselves annotated with `@BuilderInference`.\n \* Example: we declare\n \* ```\n \* fun <T> sequence(@BuilderInference block: suspend SequenceScope<T>().-> Unit): Sequence<T>\n \* ```\n \* and use it like\n \* ```\n \* val result = sequence { yield("result") }\n \* ```\n \* Here the type argument of the resulting sequence is inferred to `String` from\n \* the argument of the [SequenceScope.yield] function, that is called inside the lambda passed to [sequence].\n \* Note: this annotation is experimental, see [ExperimentalTypeInference] on how to opt-in for it.\n \*/\n\n@Target(VALUE\_PARAMETER, FUNCTION, PROPERTY)\n@Retention(AnnotationRetention.BINARY)\n@SinceKotlin("1.3")\n@ExperimentalTypeInference\n\npublic annotation class BuilderInference\n\n/\*\*\n \* Enables overload selection based on the type of the value returned from lambda argument.\n \* When two or more function overloads have otherwise the same parameter lists that differ only in the return type\n \* of a functional parameter, this annotation enables overload selection by the type of the value returned from\n \* the lambda function passed to this functional parameter.\n \* Example:\n \* ```\n \* @OverloadResolutionByLambdaReturnType\n \* fun create(intProducer: () -> Int): Int\n \* fun create(doubleProducer: () -> Double): Double\n \* val newValue = create { 3.14 }\n \* ```\n \* The annotation being applied to one of overloads allows to resolve this ambiguity by analyzing what value is returned\n \* from the lambda function.\n \* This annotation is also used to discriminate the annotated overloads in case if overload selection still cannot\n \* choose one of them even taking in account the result of lambda parameter analysis. In that case a warning is reported.\n \* Note: this annotation is experimental, see [ExperimentalTypeInference] on how to opt-in for it.\n \*/\n\n@Target(FUNCTION)\n@Retention(AnnotationRetention.BINARY)\n@SinceKotlin("1.4")\n@ExperimentalTypeInference\n\npublic annotation class OverloadResolutionByLambdaReturnType\n", /\*\n \* Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n \*/\n\npackage kotlin\n\nimport kotlin.annotation.AnnotationTarget.\*\nimport kotlin.internal.RequireKotlin\nimport kotlin.internal.RequireKotlinVersionKind\n\n/\*\*\n \* The experimental multiplatform support API marker.\n \* Any usage of a declaration annotated with `@ExperimentalMultiplatform` must be accepted either by\n \* annotating that usage with the [OptIn] annotation, e.g. `@OptIn(ExperimentalMultiplatform::class)`,\n \* or by using the compiler argument `-opt-in=kotlin.ExperimentalMultiplatform`.\n \*/\n\n@RequiresOptIn\n@MustBeDocumented\n@Target(CLASS, ANNOTATION\_CLASS, PROPERTY, FIELD, LOCAL\_VARIABLE, VALUE\_PARAMETER, CONSTRUCTOR, FUNCTION, PROPERTY\_GETTER, PROPERTY\_SETTER, TYPEALIAS)\n@Retention(AnnotationRetention.BINARY)\n@RequireKotlin("1.2.50", versionKind = RequireKotlinVersionKind.COMPILER\_VERSION)\n\npublic annotation class ExperimentalMultiplatform\n\n/\*\*\n \* Marks an expected annotation class that it isn't required to have actual counterparts in all platforms.\n \* This annotation is only applicable to `expect` annotation classes in multi-platform projects and marks that class as `optional`.\n \* Optional expected class is allowed to have no corresponding actual class on the platform. Optional annotations can only be used\n \* to annotate something, not as types in signatures. If an optional annotation has no





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this@AbstractList.size)\n        this.index = index\n    }\n\n    override fun hasNext(): Boolean = index > 0\n\n    override fun nextIndex(): Int = index\n\n    override fun previous(): E {\n        if (!hasPrevious())\n            throw NoSuchElementException()\n        return get(--index)\n    }\n\n    override fun previousIndex(): Int = index - 1\n    }\n\n    internal companion object {\n        internal fun checkElementIndex(index: Int, size: Int) {\n            if (index < 0 || index >= size) {\n                throw IndexOutOfBoundsException("\nindex: $index, size: $size")\n            }\n        }\n\n        internal fun checkPositionIndex(index: Int, size: Int) {\n            if (index < 0 || index > size) {\n                throw IndexOutOfBoundsException("\nindex: $index, size: $size")\n            }\n        }\n\n        internal fun checkRangeIndexes(fromIndex: Int, toIndex: Int, size: Int) {\n            if (fromIndex < 0 || toIndex > size)\n                throw IndexOutOfBoundsException("\nfromIndex: $fromIndex, toIndex: $toIndex, size: $size")\n            if (fromIndex > toIndex) {\n                throw IllegalArgumentException("\nfromIndex: $fromIndex > toIndex: $toIndex")\n            }\n        }\n\n        internal fun checkBoundsIndexes(startIndex: Int, endIndex: Int, size: Int) {\n            if (startIndex < 0 || endIndex > size) {\n                throw IndexOutOfBoundsException("\nstartIndex: $startIndex, endIndex: $endIndex, size: $size")\n            }\n            if (startIndex > endIndex) {\n                throw IllegalArgumentException("\nstartIndex: $startIndex > endIndex: $endIndex")\n            }\n        }\n\n        internal fun orderedHashCode(c: Collection<*>): Int {\n            var hashCode = 1\n            for (e in c) {\n                hashCode = 31 * hashCode + (e?.hashCode() ?: 0)\n            }\n            return hashCode\n        }\n\n        internal fun orderedEquals(c: Collection<*>, other: Collection<*>): Boolean {\n            if (c.size != other.size) return false\n            val otherIterator = other.iterator()\n            for (elem in c) {\n                val elemOther = otherIterator.next()\n                if (elem != elemOther) {\n                    return false\n                }\n            }\n            return true\n        }\n    }, /*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n * Based on GWT AbstractMap\n * Copyright 2007 Google Inc.\n */\npackage kotlin.collections\n/**\n * Provides a skeletal implementation of the read-only [Map] interface.\n * The implementor is required to implement [entries] property, which should return read-only set of map entries.\n * @param K the type of map keys. The map is invariant in its key type.\n * @param V the type of map values. The map is covariant in its value type.\n */\n@SinceKotlin("1.1")\npublic abstract class AbstractMap<K, out V> protected constructor() : Map<K, V> {\n    override fun containsKey(key: K): Boolean {\n        return implFindEntry(key) != null\n    }\n\n    override fun containsValue(value: @UnsafeVariance V): Boolean = entries.any { it.value == value }\n\n    internal fun containsEntry(entry: Map.Entry<*, *>): Boolean {\n        // since entry comes from @UnsafeVariance parameters it can be virtually anything\n        if (entry !is Map.Entry<*, *>) return false\n        val key = entry.key\n        val value = entry.value\n        val ourValue = get(key)\n        if (value != ourValue) {\n            return false\n        }\n        // Perhaps it was null and we don't contain the key?\n        if (ourValue == null && !containsKey(key)) {\n            return false\n        }\n        return true\n    }\n\n    /**\n     * Compares this map with other instance with the ordered structural equality.\n     * @return true, if [other] instance is a [Map] of the same size, all entries of which are contained in the [entries] set of this map.\n     */\n    override fun equals(other: Any?): Boolean {\n        if (other === this) return true\n        if (other !is Map<*, *>) return false\n        if (size != other.size) return false\n        return other.entries.all { containsEntry(it) }\n    }\n\n    override operator fun get(key: K): V? = implFindEntry(key)?.value\n\n    /**\n     * Returns the hash code value for this map.\n     * It is the same as the hashCode of [entries] set.\n     */\n    override fun hashCode(): Int = entries.hashCode()\n\n    override fun isEmpty(): Boolean = size == 0\n\n    override val size: Int get() = entries.size\n\n    /**\n     * Returns a read-only [Set] of all keys in this map.\n     * Accessing this property first time creates a keys view from [entries].\n     * All subsequent accesses just return the created instance.\n     */\n    override val keys: Set<K> get() {\n        if (_keys == null) {\n            _keys = object : AbstractSet<K>() {\n                override operator fun contains(element: K): Boolean = containsKey(element)\n                override operator fun iterator(): Iterator<K> {\n                    val entryIterator = entries.iterator()\n                    return object : Iterator<K> {\n                        override fun

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$initialCapacity)\n    }\n }\n /**\n  * Constructs an empty deque.\n  */\n\n    public constructor() {\n        elementData = emptyElementData\n    }\n\n    /**\n     * Constructs a deque that contains the same elements as the specified [elements] collection in the same order.\n     */\n    public constructor(elements: Collection<E>) {\n        elementData = elements.toArray()\n        size = elementData.size\n        if (elementData.isEmpty()) elementData = emptyElementData\n    }\n\n    /**\n     * Ensures that the capacity of this deque is at least equal to the specified [minCapacity].\n     * If the current capacity is less than the [minCapacity], a new backing storage is allocated with greater capacity.\n     * Otherwise, this method takes no action and simply returns.\n     */\n    private fun ensureCapacity(minCapacity: Int) {\n        if (minCapacity < 0) throw IllegalStateException("Deque is too big.") // overflow\n        if (minCapacity <= elementData.size) return\n        if (elementData === emptyElementData) {\n            elementData = arrayOfNulls(minCapacity.coerceAtLeast(defaultMinCapacity))\n        }\n        return\n    }\n\n    val newCapacity = newCapacity(elementData.size, minCapacity)\n    copyElements(newCapacity)\n }\n\n /**\n  * Creates a new array with the specified [newCapacity] size and copies elements in the [elementData] array to it.\n  */\n    private fun copyElements(newCapacity: Int) {\n        val newElements = arrayOfNulls<Any?>(newCapacity)\n        elementData.copyInto(newElements, 0, head, elementData.size)\n        elementData.copyInto(newElements, elementData.size - head, 0, head)\n        head = 0\n        elementData = newElements\n    }\n\n    @kotlin.internal.InlineOnly\n    private inline fun internalGet(internalIndex: Int): E {\n        @Suppress("UNCHECKED_CAST")\n        return elementData[internalIndex] as E\n    }\n\n    private fun positiveMod(index: Int): Int = if (index >= elementData.size) index - elementData.size else index\n\n    private fun negativeMod(index: Int): Int = if (index < 0) index + elementData.size else index\n\n    @kotlin.internal.InlineOnly\n    private inline fun internalIndex(index: Int): Int = positiveMod(head + index)\n\n    private fun incremented(index: Int): Int = if (index == elementData.lastIndex) 0 else index + 1\n\n    private fun decremented(index: Int): Int = if (index == elementData.lastIndex) 0 else index - 1\n\n    override fun isEmpty(): Boolean = size == 0\n\n    /**\n     * Returns the first element, or throws [NoSuchElementException] if this deque is empty.\n     */\n    public fun first(): E = if (isEmpty()) throw NoSuchElementException("ArrayDeque is empty.") else internalGet(head)\n\n    /**\n     * Returns the first element, or `null` if this deque is empty.\n     */\n    public fun firstOrNull(): E? = if (isEmpty()) null else internalGet(head)\n\n    /**\n     * Returns the last element, or throws [NoSuchElementException] if this deque is empty.\n     */\n    public fun last(): E = if (isEmpty()) throw NoSuchElementException("ArrayDeque is empty.") else internalGet(internalIndex(lastIndex))\n\n    /**\n     * Returns the last element, or `null` if this deque is empty.\n     */\n    public fun lastOrNull(): E? = if (isEmpty()) null else internalGet(internalIndex(lastIndex))\n\n    /**\n     * Prepends the specified [element] to this deque.\n     */\n    public fun addFirst(element: E) {\n        ensureCapacity(size + 1)\n        head = decremented(head)\n        elementData[head] = element\n        size += 1\n    }\n\n    /**\n     * Appends the specified [element] to this deque.\n     */\n    public fun addLast(element: E) {\n        ensureCapacity(size + 1)\n        elementData[internalIndex(size)] = element\n        size += 1\n    }\n\n    /**\n     * Removes the first element from this deque and returns that removed element, or throws [NoSuchElementException] if this deque is empty.\n     */\n    public fun removeFirst(): E {\n        if (isEmpty()) throw NoSuchElementException("ArrayDeque is empty.")\n        val element = internalGet(head)\n        elementData[head] = null\n        head = incremented(head)\n        size -= 1\n        return element\n    }\n\n    /**\n     * Removes the first element from this deque and returns that removed element, or returns `null` if this deque is empty.\n     */\n    public fun removeFirstOrNull(): E? = if (isEmpty()) null else removeFirst()\n\n    /**\n     * Removes the last element from this deque and returns that removed element, or throws [NoSuchElementException] if this deque is empty.\n     */\n    public fun removeLast(): E {\n        if (isEmpty()) throw NoSuchElementException("ArrayDeque is empty.")\n        val internalLastIndex = internalIndex(lastIndex)\n        val element = internalGet(internalLastIndex)\n        elementData[internalLastIndex] = null\n        size -= 1\n        return element\n    }\n\n    /**\n     * Removes the last element from this deque and returns that removed

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element, or returns `null` if this deque is empty.\n    */\n    public fun removeLastOrNull(): E? = if (isEmpty()) null
else removeLast()\n    // MutableList, MutableCollection\n    public override fun add(element: E): Boolean {\n
addLast(element)\n        return true\n    }\n\n    public override fun add(index: Int, element: E) {\n
AbstractList.checkPositionIndex(index, size)\n        if (index == size) {\n            addLast(element)\n
return\n        } else if (index == 0) {\n            addFirst(element)\n            return\n        }\n        ensureCapacity(size
+ 1)\n        // Elements in circular array lay in 2 ways:\n        // 1. `head` is less than `tail`:    [#, #, e1, e2, e3,
#]\n        // 2. `head` is greater than `tail`:    [e3, #, #, #, e1, e2]\n        // where head is the index of the first element
in the circular array,\n        // and tail is the index following the last element.\n        //\n        // At this point
the insertion index is not equal to head or tail.\n        // Also the circular array can store at least one more element.\n
        //\n        // Depending on where the given element must be inserted the preceding or the succeeding\n        //
elements will be shifted to make room for the element to be inserted.\n        //\n        // In case the preceding elements
are shifted:\n        // * if the insertion index is greater than the head (regardless of circular array form)\n        // ->
shift the preceding elements\n        // * otherwise, the circular array has (2) form and the insertion index is less than
tail\n        // -> shift all elements in the back of the array\n        // -> shift preceding elements in the front of the
array\n        // In case the succeeding elements are shifted:\n        // * if the insertion index is less than the tail
(regardless of circular array form)\n        // -> shift the succeeding elements\n        // * otherwise, the
circular array has (2) form and the insertion index is greater than head\n        // -> shift all elements in the front
of the array\n        // -> shift succeeding elements in the back of the array\n\n        val internalIndex =
internalIndex(index)\n        if (index < (size + 1) shr 1) {\n            // closer to the first element -> shift preceding
elements\n            val decrementedInternalIndex = decremented(internalIndex)\n            val decrementedHead =
decremented(head)\n\n            if (decrementedInternalIndex >= head) {\n                elementData[decrementedHead]
= elementData[head] // head can be zero\n                elementData.copyInto(elementData, head, head + 1,
decrementedInternalIndex + 1)\n            } else { // head > tail\n                elementData.copyInto(elementData, head -
1, head, elementData.size) // head can't be zero\n                elementData[elementData.size - 1] = elementData[0]\n
                elementData.copyInto(elementData,
0, 1, decrementedInternalIndex + 1)\n            }\n\n            elementData[decrementedInternalIndex] = element\n
            head = decrementedHead\n        } else {\n            // closer to the last element -> shift succeeding elements\n
val tail = internalIndex(size)\n            if (internalIndex < tail) {\n                elementData.copyInto(elementData,
internalIndex + 1, internalIndex, tail)\n            } else { // head > tail\n                elementData.copyInto(elementData,
1, 0, tail)\n                elementData[0] = elementData[elementData.size - 1]\n
                elementData.copyInto(elementData, internalIndex + 1, internalIndex, elementData.size - 1)\n            }\n
            elementData[internalIndex] = element\n        }\n        size += 1\n    }\n\n    private fun
copyCollectionElements(internalIndex: Int, elements: Collection<E>) {\n        val iterator = elements.iterator()\n
        for (index in internalIndex until elementData.size) {\n
            if (!iterator.hasNext()) break\n            elementData[index] = iterator.next()\n        }\n        for (index in 0 until
head) {\n            if (!iterator.hasNext()) break\n            elementData[index] = iterator.next()\n        }\n        size +=
elements.size\n    }\n\n    public override fun addAll(elements: Collection<E>): Boolean {\n        if
(elements.isEmpty()) return false\n        ensureCapacity(this.size + elements.size)\n
        copyCollectionElements(internalIndex(size), elements)\n        return true\n    }\n\n    public override fun
addAll(index: Int, elements: Collection<E>): Boolean {\n        AbstractList.checkPositionIndex(index, size)\n
        if (elements.isEmpty()) {\n            return false\n        } else if (index == size) {\n            return addAll(elements)\n
        }\n        ensureCapacity(this.size + elements.size)\n        val tail = internalIndex(size)\n        val internalIndex =
internalIndex(index)\n        val elementsSize
= elements.size\n        if (index < (size + 1) shr 1) {\n            // closer to the first element -> shift preceding
elements\n\n            var shiftedHead = head - elementsSize\n\n            if (internalIndex >= head) {\n                if
(shiftedHead >= 0) {\n                    elementData.copyInto(elementData, shiftedHead, head, internalIndex)\n
                } else { // head < tail, insertion leads to head >= tail\n                    shiftedHead += elementData.size\n
                    val
elementsToShift = internalIndex - head\n                    val shiftToBack = elementData.size - shiftedHead\n

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        if (shiftToBack >= elementsToShift) {\n                elementData.copyInto(elementData, shiftedHead, head,
internalIndex)\n                } else {\n                elementData.copyInto(elementData, shiftedHead, head, head +
shiftToBack)\n                elementData.copyInto(elementData, 0, head + shiftToBack, internalIndex)\n                }\n                }\n                } else { // head > tail,\n                internalIndex < tail\n                elementData.copyInto(elementData, shiftedHead, head, elementData.size)\n                if (elementsSize >=
internalIndex) {\n                elementData.copyInto(elementData, elementData.size - elementsSize, 0,
internalIndex)\n                } else {\n                elementData.copyInto(elementData, elementData.size -
elementsSize, 0, elementsSize)\n                elementData.copyInto(elementData, 0, elementsSize, internalIndex)\n                }\n                }\n                head = shiftedHead\n                copyCollectionElements(negativeMod(internalIndex -
elementsSize), elements)\n                } else {\n                // closer to the last element -> shift succeeding elements\n                val shiftedInternalIndex = internalIndex + elementsSize\n                if (internalIndex < tail) {\n                if (tail +
elementsSize <= elementData.size) {\n                elementData.copyInto(elementData, shiftedInternalIndex, internalIndex, tail)\n                } else { // head <
tail, insertion leads to head >= tail\n                if (shiftedInternalIndex >= elementData.size) {\n                elementData.copyInto(elementData, shiftedInternalIndex - elementData.size, internalIndex, tail)\n                } else
{\n                val shiftToFront = tail + elementsSize - elementData.size\n                elementData.copyInto(elementData, 0, tail - shiftToFront, tail)\n                elementData.copyInto(elementData,
shiftedInternalIndex, internalIndex, tail - shiftToFront)\n                }\n                }\n                } else { // head > tail,
internalIndex > head\n                elementData.copyInto(elementData, elementsSize, 0, tail)\n                if
(shiftedInternalIndex >= elementData.size) {\n                elementData.copyInto(elementData, shiftedInternalIndex
- elementData.size,
internalIndex, elementData.size)\n                } else {\n                elementData.copyInto(elementData, 0,
elementData.size - elementsSize, elementData.size)\n                elementData.copyInto(elementData,
shiftedInternalIndex, internalIndex, elementData.size - elementsSize)\n                }\n                }\n                copyCollectionElements(internalIndex, elements)\n                }\n                return true\n                }\n                public override fun
get(index: Int): E {\n                AbstractList.checkElementIndex(index, size)\n                return
internalGet(internalIndex(index))\n                }\n                public override fun set(index: Int, element: E): E {\n                AbstractList.checkElementIndex(index, size)\n                val internalIndex = internalIndex(index)\n                val oldElement
= internalGet(internalIndex)\n                elementData[internalIndex] = element\n                return oldElement\n                }\n                public override fun contains(element: E): Boolean = indexOf(element) != -1\n                public override
fun indexOf(element: E): Int {\n                val tail = internalIndex(size)\n                if (head < tail) {\n                for (index in
head until tail) {\n                if (element == elementData[index]) return index - head\n                }\n                } else if (head
>= tail) {\n                for (index in head until elementData.size) {\n                if (element == elementData[index]) return
index - head\n                }\n                for (index in 0 until tail) {\n                if (element == elementData[index]) return
index + elementData.size - head\n                }\n                }\n                return -1\n                }\n                public override fun
lastIndexOf(element: E): Int {\n                val tail = internalIndex(size)\n                if (head < tail) {\n                for (index in tail
- 1 downTo head) {\n                if (element == elementData[index]) return index - head\n                }\n                } else if
(head > tail) {\n                for (index in tail - 1 downTo 0) {\n                if (element == elementData[index])
return index + elementData.size - head\n                }\n                for (index in elementData.lastIndex downTo head) {\n                if (element == elementData[index]) return index - head\n                }\n                }\n                return -1\n                }\n                public
override fun remove(element: E): Boolean {\n                val index = indexOf(element)\n                if (index == -1) return
false\n                removeAt(index)\n                return true\n                }\n                public override fun removeAt(index: Int): E {\n                AbstractList.checkElementIndex(index, size)\n                if (index == lastIndex) {\n                return removeLast()\n                }
else if (index == 0) {\n                return removeFirst()\n                }\n                val internalIndex = internalIndex(index)\n                val element = internalGet(internalIndex)\n                if (index < size shr 1) {\n                // closer to the first element ->
shift preceding elements\n                if (internalIndex >= head) {\n                elementData.copyInto(elementData, head
+ 1, head, internalIndex)\n                } else { // head > tail, internalIndex < head\n                elementData.copyInto(elementData, 1, 0, internalIndex)\n                elementData[0] = elementData[elementData.size

```

```

- 1]\n        elementData.copyInto(elementData, head + 1, head, elementData.size - 1)\n        }\n\n    elementData[head] = null\n        head = incremented(head)\n    } else {\n        // closer to the last element ->\n    shift succeeding elements\n        val internalLastIndex = internalIndex(lastIndex)\n        if (internalIndex <=\n    internalLastIndex) {\n        elementData.copyInto(elementData, internalIndex, internalIndex + 1,\n    internalLastIndex + 1)\n        } else { // head > tail, internalIndex > head\n    elementData.copyInto(elementData, internalIndex, internalIndex + 1, elementData.size)\n    elementData[elementData.size - 1] = elementData[0]\n        elementData.copyInto(elementData,\n    0, 1, internalLastIndex + 1)\n        }\n\n        elementData[internalLastIndex] = null\n        }\n        size -= 1\n\n        return element\n    }\n\n    public override fun removeAll(elements: Collection<E>): Boolean = filterInPlace {\n    !elements.contains(it) }\n\n    public override fun retainAll(elements: Collection<E>): Boolean = filterInPlace {\n    elements.contains(it) }\n\n    private inline fun filterInPlace(predicate: (E) -> Boolean): Boolean {\n        if\n    (this.isEmpty() || elementData.isEmpty())\n        return false\n\n        val tail = internalIndex(size)\n        var\n    newTail = head\n        var modified = false\n\n        if (head < tail) {\n            for (index in head until tail) {\n                val element = elementData[index]\n                @Suppress(\"UNCHECKED_CAST\")\n                if\n    (predicate(element as E))\n                elementData[newTail++] = element\n                else\n                modified = true\n            }\n\n            elementData.fill(null, newTail, tail)\n        } else {\n            for (index in head until elementData.size) {\n                val element = elementData[index]\n                elementData[index] = null\n                @Suppress(\"UNCHECKED_CAST\")\n                if (predicate(element as E))\n                elementData[newTail++] = element\n                else\n                modified = true\n            }\n\n            newTail =\n    positiveMod(newTail)\n            for (index in 0 until tail) {\n                val element = elementData[index]\n                elementData[index] = null\n                @Suppress(\"UNCHECKED_CAST\")\n                if (predicate(element as\n    E)) {\n                elementData[newTail] = element\n                newTail = incremented(newTail)\n            }\n            else {\n                modified = true\n            }\n        }\n\n        if (modified)\n            size =\n    negativeMod(newTail\n    - head)\n\n        return modified\n    }\n\n    public override fun clear() {\n        val tail = internalIndex(size)\n        if\n    (head < tail) {\n        elementData.fill(null, head, tail)\n        } else if (isEmpty()) {\n    elementData.fill(null, head, elementData.size)\n        elementData.fill(null, 0, tail)\n        }\n        head = 0\n    size = 0\n    }\n\n    @Suppress(\"NOTHING_TO_OVERRIDE\")\n    override fun <T> toArray(array: Array<T>):\n    Array<T> {\n        @Suppress(\"UNCHECKED_CAST\")\n        val dest = (if (array.size >= size) array else\n    arrayOfNulls(array, size)) as Array<Any?>\n        val tail = internalIndex(size)\n        if (head < tail) {\n            elementData.copyInto(dest, startIndex = head, endIndex = tail)\n        } else if (isEmpty()) {\n            elementData.copyInto(dest, destinationOffset = 0, startIndex = head, endIndex = elementData.size)\n            elementData.copyInto(dest, destinationOffset = elementData.size\n    - head, startIndex = 0, endIndex = tail)\n        }\n        if (dest.size > size) {\n            dest[size] = null // null-terminate\n        }\n        @Suppress(\"UNCHECKED_CAST\")\n        return dest as Array<T>\n    }\n\n    @Suppress(\"NOTHING_TO_OVERRIDE\")\n    override fun toArray(): Array<Any?> {\n        return\n    toArray(arrayOfNulls<Any?>(size))\n    }\n\n    // for testing\n    internal fun <T> testToArray(array: Array<T>):\n    Array<T> = toArray(array)\n\n    internal fun testToArray(): Array<Any?> = toArray()\n\n    internal companion\n    object {\n        private val emptyElementData = emptyArray<Any?>()\n        private const val maxArraySize =\n    Int.MAX_VALUE - 8\n        private const val defaultMinCapacity = 10\n        internal fun\n    newCapacity(oldCapacity: Int, minCapacity: Int): Int {\n            // overflow-conscious\n            var newCapacity =\n    oldCapacity + (oldCapacity shr 1)\n            if (newCapacity - minCapacity < 0)\n                newCapacity =\n    minCapacity\n\n            if (newCapacity - maxArraySize > 0)\n                newCapacity = if (minCapacity > maxArraySize)\n    Int.MAX_VALUE else maxArraySize\n            return newCapacity\n        }\n    }\n\n    // For testing only\n    internal fun internalStructure(structure: (head: Int, elements: Array<Any?>) -> Unit) {\n        val tail =\n    internalIndex(size)\n        val head = if (isEmpty() || head < tail) head else head - elementData.size\n    }

```

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structure(head, toArray())\n } \n}", /*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n
*\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("ArraysKt")\n\n\npackage
kotlin.collections\n\nimport kotlin.contracts.*\n\n\n/**\n * Returns a single list of all elements from all arrays in the
given array.\n * @sample samples.collections.Arrays.Transformations.flattenArray\n */\npublic
fun <T> Array<out Array<out T>>.flatten(): List<T> {\n    val result = ArrayList<T>(sumOf { it.size })\n    for
(element in this) {\n        result.addAll(element)\n    }\n    return result\n}\n\n\n/**\n * Returns a pair of lists, where\n
* *first* list is built from the first values of each pair from this array,\n * *second* list is built from the second
values of each pair from this array.\n * @sample samples.collections.Arrays.Transformations.unzipArray\n
*/\npublic fun <T, R> Array<out Pair<T, R>>.unzip(): Pair<List<T>, List<R>> {\n    val listT =
ArrayList<T>(size)\n    val listR = ArrayList<R>(size)\n    for (pair in this) {\n        listT.add(pair.first)\n
listR.add(pair.second)\n    }\n    return listT to listR\n}\n\n\n/**\n * Returns `true` if this nullable array is either null or
empty.\n * @sample samples.collections.Arrays.Usage.arrayIsNullOrEmpty\n
*/\n\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline fun Array<*>?.isNullOrEmpty(): Boolean
{\n    contract
{\n        returns(false) implies (this@isNullOrEmpty != null)\n    }\n    return this == null ||
this.isEmpty()\n}\n\n\n/**\n * Returns this array if it's not empty\n * or the result of calling [defaultValue] function if
the array is empty.\n * @sample samples.collections.Arrays.Usage.arrayIfEmpty\n
*/\n\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\n@Suppress("UPPER_BOUND_CANNOT_BE_ARRAY")\npublic inline fun <C, R> C.ifEmpty(defaultValue: () -> R): R where C : Array<*>, C : R =\n    if (isEmpty())
defaultValue() else
this\n\n\n@OptIn(ExperimentalUnsignedTypes::class)\n@SinceKotlin("1.3")\n@PublishedApi\n@kotlin.jvm.Jvm
Name("contentDeepEquals")\n@kotlin.js.JsName("contentDeepEqualsImpl")\ninternal fun <T> Array<out
T>?.contentDeepEqualsImpl(other: Array<out T>?): Boolean {\n    if (this === other) return true\n    if (this == null
|| other == null || this.size != other.size) return false\n    for (i in indices) {\n        val v1 = this[i]\n        val v2 =
other[i]\n\n        if (v1 === v2) {\n            continue\n        } else if (v1 == null || v2 == null) {\n            return false\n        }\n\n        when {\n            v1 is Array<*> && v2 is Array<*> -> if (!v1.contentDeepEquals(v2)) return false\n
            v1 is ByteArray && v2 is ByteArray -> if (!v1.contentEquals(v2)) return false\n            v1 is ShortArray &&
v2 is ShortArray -> if (!v1.contentEquals(v2)) return false\n            v1 is IntArray && v2 is IntArray -> if
(!v1.contentEquals(v2)) return false\n            v1 is LongArray && v2 is LongArray -> if (!v1.contentEquals(v2))
return false\n            v1 is FloatArray && v2 is FloatArray -> if (!v1.contentEquals(v2)) return false\n            v1 is
DoubleArray && v2 is DoubleArray -> if (!v1.contentEquals(v2)) return false\n            v1 is CharArray && v2
is CharArray -> if (!v1.contentEquals(v2)) return false\n            v1 is BooleanArray && v2 is BooleanArray -> if
(!v1.contentEquals(v2))
return false\n            v1 is UByteArray && v2 is UByteArray -> if (!v1.contentEquals(v2)) return false\n
            v1 is UShortArray && v2 is UShortArray -> if (!v1.contentEquals(v2)) return false\n            v1 is UIntArray &&
v2 is UIntArray -> if (!v1.contentEquals(v2)) return false\n            v1 is ULongArray && v2 is ULongArray ->
if (!v1.contentEquals(v2)) return false\n\n            else -> if (v1 != v2) return false\n        }\n    }\n    return
true\n}\n\n\n@SinceKotlin("1.3")\n@PublishedApi\n@kotlin.jvm.JvmName("contentDeepToString")\n@kotlin.js.
JsName("contentDeepToStringImpl")\ninternal fun <T> Array<out T>?.contentDeepToStringImpl(): String {\n    if (this == null) return "null"\n    val length = size.coerceAtMost((Int.MAX_VALUE - 2) / 5) * 5 + 2 // in order not
to overflow Int.MAX_VALUE\n    return buildString(length) {\n        contentDeepToStringInternal(this,
mutableListOf())\n    }\n}\n\n\n@OptIn(ExperimentalUnsignedTypes::class)\nprivate
fun <T> Array<out T>.contentDeepToStringInternal(result: StringBuilder, processed: MutableList<Array<*>>) {\n    if (this in processed) {\n        result.append("[...]")\n        return\n    }\n    processed.add(this)\n    result.append("[")\n    for (i in indices) {\n        if (i != 0) {\n            result.append(", ")\n        }\n        val element

```

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= this[i]\n    when (element) {\n        null    -> result.append("\null")\n        is Array<*> ->
element.contentDeepToStringInternal(result, processed)\n        is ByteArray ->
result.append(element.contentToString())\n        is ShortArray -> result.append(element.contentToString())\n
        is IntArray -> result.append(element.contentToString())\n        is LongArray ->
result.append(element.contentToString())\n        is FloatArray -> result.append(element.contentToString())\n
        is DoubleArray -> result.append(element.contentToString())\n
        is CharArray -> result.append(element.contentToString())\n        is BooleanArray ->
result.append(element.contentToString())\n        is UByteArray -> result.append(element.contentToString())\n
        is UShortArray -> result.append(element.contentToString())\n        is UIntArray ->
result.append(element.contentToString())\n        is ULongArray -> result.append(element.contentToString())\n
        else -> result.append(element.toString())\n    }\n }\n\n result.append('')\n
processed.removeAt(processed.lastIndex)\n}", "/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n/** Returns true if the brittle contains optimization
is enabled. See KT-45438. */\n\ninternal expect fun brittleContainsOptimizationEnabled(): Boolean\n\n/**\n * Returns true if [brittleContainsOptimizationEnabled] is true\n * and it's safe to convert this collection to a set
without changing contains method behavior.\n */\n\nprivate fun <T> Collection<T>.safeToConvertToSet() =
brittleContainsOptimizationEnabled() && size > 2 && this is ArrayList\n\n/**\n * When
[brittleContainsOptimizationEnabled] is true:\n * - Converts this [Iterable] to a set if it is not a [Collection].\n * -
Converts this [Collection] to a set, when it's worth so and it doesn't change contains method behavior.\n * -
Otherwise returns this.\n * When [brittleContainsOptimizationEnabled] is false:\n * - Converts this [Iterable] to a
list if it is not a [Collection].\n * - Otherwise returns this.\n */\n\ninternal fun <T>
Iterable<T>.convertToSetForSetOperationWith(source: Iterable<T>): Collection<T> =\n    when (this) {\n        is
Set -> this\n        is Collection ->\n            when {\n                source is Collection && source.size < 2 -> this\n
                else -> if (this.safeToConvertToSet()) toHashSet() else this\n            }\n        else -> if
(brittleContainsOptimizationEnabled()) toHashSet() else toList()\n    }\n\n/**\n * When
[brittleContainsOptimizationEnabled] is true:\n * - Converts this [Iterable] to a set if it is not a [Collection].\n * -
Converts this [Collection] to a set, when it's worth so and it doesn't change contains method behavior.\n * -
Otherwise returns this.\n * When [brittleContainsOptimizationEnabled] is false:\n * - Converts this [Iterable] to a
list if it is not a [Collection].\n * - Otherwise returns this.\n */\n\ninternal fun <T>
Iterable<T>.convertToSetForSetOperation(): Collection<T> =\n    when (this) {\n        is Set -> this\n        is
Collection -> if (this.safeToConvertToSet()) toHashSet() else this\n        else -> if
(brittleContainsOptimizationEnabled()) toHashSet() else toList()\n    }\n\n/**\n * Converts this sequence to a set if
[brittleContainsOptimizationEnabled] is true,\n * otherwise
converts it to a list.\n */\n\ninternal fun <T> Sequence<T>.convertToSetForSetOperation(): Collection<T> =\n    if
(brittleContainsOptimizationEnabled()) toHashSet() else toList()\n\n/**\n * Converts this array to a set if
[brittleContainsOptimizationEnabled] is true,\n * otherwise converts it to a list.\n */\n\ninternal fun <T>
Array<T>.convertToSetForSetOperation(): Collection<T> =\n    if (brittleContainsOptimizationEnabled())
toHashSet() else asList()\n", "/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n/**\n * Data class representing a value from a
collection or sequence, along with its index in that collection or sequence.\n * @property value the underlying
value.\n * @property index the index of the value in the collection or sequence.\n */\n\npublic data class
IndexedValue<out T>(public val
index: Int, public val value: T)\n", "/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmName("MapAccessorsKt")\n\npackage
kotlin.collections\n\nimport kotlin.reflect.KProperty\nimport kotlin.internal.Exact\n\n/**\n * Returns the value of

```

the property for the given object from this read-only map.  
\* @param thisRef the object for which the value is requested (not used).  
\* @param property the metadata for the property, used to get the name of property and lookup the value corresponding to this name in the map.  
\* @return the property value.  
\* @throws NoSuchElementException when the map doesn't contain value for the property name and doesn't provide an implicit default (see [withDefault]).  
\* @kotlin.internal.InlineOnly  
public inline operator fun <V, V1 : V> Map<in String, @Exact V>.getValue(thisRef:

```
Any?, property: KProperty<*>): V1 =\n    @Suppress("UNCHECKED_CAST")\n    (getOrImplicitDefault(property.name) as V1)\n\n/**  
 * Returns the value of the property for the given object from this mutable map.  
 * @param thisRef the object for which the value is requested (not used).  
 * @param property the metadata for the property, used to get the name of property and lookup the value corresponding to this name in the map.  
 * @return the property value.  
 * @throws NoSuchElementException when the map doesn't contain value for the property name and doesn't provide an implicit default (see [withDefault]).
```

```
*\n@kotlin.jvm.JvmName("getVar")\n@kotlin.internal.InlineOnly\npublic inline operator fun <V, V1 : V> MutableMap<in String, out @Exact V>.getValue(thisRef: Any?, property: KProperty<*>): V1 =\n    @Suppress("UNCHECKED_CAST") (getOrImplicitDefault(property.name) as V1)\n\n/**  
 * Stores the value of the property for the given object in this mutable map.  
 * @param thisRef the object for which the value is requested (not used).  
 * @param property the metadata for the property, used to get the name of property and store the value associated with that name in the map.  
 * @param value the value to set.  
 *\n@kotlin.internal.InlineOnly\npublic inline operator fun <V> MutableMap<in String, in V>.setValue(thisRef: Any?, property: KProperty<*>, value: V) {\n    this.put(property.name, value)\n}\n\n", "*/  
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```

```
*\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("MapsKt")\n\npackage kotlin.collections\n\n/**  
 * Returns the value for the given key, or the implicit default value for this map.  
 * By default no implicit value is provided for maps and a [NoSuchElementException] is thrown.  
 * To create a map with implicit default value use [withDefault]
```

```
method.  
 * @throws NoSuchElementException when the map doesn't contain a value for the specified key and no implicit default was provided for that map.
```

```
*\n@kotlin.jvm.JvmName("getOrImplicitDefaultNullable")\n@PublishedApi\ninternal fun <K, V> Map<K, V>.getOrImplicitDefault(key: K): V {\n    if (this is MapWithDefault)\n        return this.getOrImplicitDefault(key)\n    return getOrElseNullable(key, { throw NoSuchElementException("Key $key is missing in the map.") })\n}\n\n/**  
 * Returns a wrapper of this read-only map, having the implicit default value provided with the specified function [defaultValue].  
 * This implicit default value is used when the original map doesn't contain a value for the key specified  
 * and a value is obtained with [Map.getValue] function, for example when properties are delegated to the map.  
 * When this map already has an implicit default value provided with a former call to [withDefault], it is being replaced by this call.
```

```
*\npublic fun <K, V> Map<K, V>.withDefault(defaultValue: (key: K) -> V): Map<K, V> =\n    when (this) {\n        is MapWithDefault -> this.map.withDefault(defaultValue)\n        else -> MapWithDefaultImpl(this, defaultValue)\n    }\n\n/**  
 * Returns a wrapper of this mutable map, having the implicit default value provided with the specified function [defaultValue].  
 * This implicit default value is used when the original map doesn't contain a value for the key specified  
 * and a value is obtained with [Map.getValue] function, for example when properties are delegated to the map.  
 * When this map already has an implicit default value provided with a former call to [withDefault], it is being replaced by this call.
```

```
*\n@kotlin.jvm.JvmName("withDefaultMutable")\npublic fun <K, V> MutableMap<K, V>.withDefault(defaultValue: (key: K) -> V): MutableMap<K, V> =\n    when (this) {\n        is MutableMapWithDefault -> this.map.withDefault(defaultValue)\n        else ->
```

```
MutableMapWithDefaultImpl(this, defaultValue)\n    }\n\nprivate interface MapWithDefault<K, out V> : Map<K, V> {\n    public val map: Map<K, V>\n    public fun getOrImplicitDefault(key: K): V\n}\n\nprivate interface MutableMapWithDefault<K, V> :
```

```

MutableMap<K, V>, MapWithDefault<K, V> {
    public override val map: MutableMap<K, V>
}

private class MapWithDefaultImpl<K, out V>(public override val map: Map<K, V>, private val default: (key: K) -> V) :
    MapWithDefault<K, V> {
    override fun equals(other: Any?): Boolean = map.equals(other)
    override fun hashCode(): Int = map.hashCode()
    override fun toString(): String = map.toString()
    override val size: Int get() = map.size
    override fun isEmpty(): Boolean = map.isEmpty()
    override fun containsKey(key: K): Boolean = map.containsKey(key)
    override fun containsValue(value: @UnsafeVariance V): Boolean = map.containsValue(value)
    override fun get(key: K): V? = map.get(key)
    override val keys: Set<K> get() = map.keys

    override val values: Collection<V> get() = map.values
    override val entries: Set<Map.Entry<K, V>> get() = map.entries

    override fun getOrDefault(key: K): V = map.getOrNull(key, { default(key) })
}

private class MutableMapWithDefaultImpl<K, V>(public override val map: MutableMap<K, V>, private val default: (key: K) -> V) : MutableMapWithDefault<K, V> {
    override fun equals(other: Any?): Boolean = map.equals(other)
    override fun hashCode(): Int = map.hashCode()
    override fun toString(): String = map.toString()
    override val size: Int get() = map.size
    override fun isEmpty(): Boolean = map.isEmpty()
    override fun containsKey(key: K): Boolean = map.containsKey(key)
    override fun containsValue(value: @UnsafeVariance V): Boolean = map.containsValue(value)
    override fun get(key: K): V? = map.get(key)
    override val keys: MutableSet<K> get() = map.keys
    override val values: MutableCollection<V> get() = map.values

    override val entries: MutableSet<MutableMap.MutableEntry<K, V>> get() = map.entries

    override fun put(key: K, value: V): V? = map.put(key, value)
    override fun remove(key: K): V? = map.remove(key)
    override fun putAll(from: Map<out K, V>) = map.putAll(from)
    override fun clear() = map.clear()

    override fun getOrDefault(key: K): V = map.getOrNull(key, { default(key) })
}

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by the Apache 2.0 license that can be found in the license/LICENSE.txt file.

@file:kotlin.jvm.JvmMultifileClass
@file:kotlin.jvm.JvmName("CollectionsKt")
package
kotlin.collections
import kotlin.random.Random

 * Removes a single instance of the specified element
from this collection, if it is present.
 * Allows to overcome type-safety restriction of `remove` that requires
to pass an element of type `E`.

 * @return `true` if the element has been successfully removed; `false` if it was not present in the collection.

@kotlin.internal.InlineOnly
public inline fun <@kotlin.internal.OnlyInputTypes T> MutableCollection<out
T>.remove(element: T): Boolean =
    @Suppress("UNCHECKED_CAST") (this as
MutableCollection<T>).remove(element)

 * Removes all of this collection's elements that are also
contained in the specified collection.
 * Allows to overcome type-safety restriction of `removeAll` that requires
to pass a collection of type `Collection<E>`.

 * @return `true` if any of the specified elements was removed
from the collection, `false` if the collection was not modified.

@kotlin.internal.InlineOnly
public inline fun
<@kotlin.internal.OnlyInputTypes T> MutableCollection<out T>.removeAll(elements: Collection<T>): Boolean =
    @Suppress("UNCHECKED_CAST") (this as MutableCollection<T>).removeAll(elements)

 * Retains only the elements in this collection
that are contained in the specified collection.
 * Allows to overcome type-safety restriction of `retainAll` that
requires to pass a collection of type `Collection<E>`.

 * @return `true` if any element was removed from the
collection, `false` if the collection was not modified.

@kotlin.internal.InlineOnly
public inline fun
<@kotlin.internal.OnlyInputTypes T> MutableCollection<out T>.retainAll(elements: Collection<T>): Boolean =
    @Suppress("UNCHECKED_CAST") (this as MutableCollection<T>).retainAll(elements)

 * Adds the
specified [element] to this mutable collection.

@kotlin.internal.InlineOnly
public inline operator fun <T>
MutableCollection<in T>.plusAssign(element: T) {
    this.add(element)
}

 * Adds all elements of the
given [elements] collection to this mutable collection.

@kotlin.internal.InlineOnly
public inline operator fun
<T> MutableCollection<in T>.plusAssign(elements: Iterable<T>) {
    this.addAll(elements)
}

```

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* Adds all elements of the given [elements] array to this mutable collection.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in T>.plusAssign(elements:
Array<T>) {\n    this.addAll(elements)\n}\n\n/**\n * Adds all elements of the given [elements] sequence to this
mutable collection.\n *\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in
T>.plusAssign(elements: Sequence<T>) {\n    this.addAll(elements)\n}\n\n/**\n * Removes a single instance of the
specified [element] from this mutable collection.\n *\n@kotlin.internal.InlineOnly\npublic inline operator fun <T>
MutableCollection<in T>.minusAssign(element: T) {\n    this.remove(element)\n}\n\n/**\n * Removes all elements
contained in the given [elements] collection from this mutable collection.\n *\n@kotlin.internal.InlineOnly\npublic
inline operator fun <T> MutableCollection<in T>.minusAssign(elements: Iterable<T>) {\n
this.removeAll(elements)\n}\n\n/**\n * Removes
all elements contained in the given [elements] array from this mutable collection.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in T>.minusAssign(elements:
Array<T>) {\n    this.removeAll(elements)\n}\n\n/**\n * Removes all elements contained in the given [elements]
sequence from this mutable collection.\n *\n@kotlin.internal.InlineOnly\npublic inline operator fun <T>
MutableCollection<in T>.minusAssign(elements: Sequence<T>) {\n    this.removeAll(elements)\n}\n\n/**\n * Adds
all elements of the given [elements] collection to this [MutableCollection].\n *\npublic fun <T>
MutableCollection<in T>.addAll(elements: Iterable<T>): Boolean {\n    when (elements) {\n        is Collection ->
return addAll(elements)\n        else -> {\n            var result: Boolean = false\n            for (item in elements)\n
if (add(item)) result = true\n            return result\n        }\n    }\n}\n\n/**\n * Adds all elements of the given
[elements] sequence to this [MutableCollection].\n *\npublic fun <T> MutableCollection<in T>.addAll(elements:
Sequence<T>): Boolean {\n    var result: Boolean = false\n    for (item in elements) {\n        if (add(item)) result =
true\n    }\n    return result\n}\n\n/**\n * Adds all elements of the given [elements] array to this
[MutableCollection].\n *\npublic fun <T> MutableCollection<in T>.addAll(elements: Array<out T>): Boolean {\n
return addAll(elements.asList())\n}\n\n/**\n * Removes all elements from this [MutableCollection] that are also
contained in the given [elements] collection.\n *\npublic fun <T> MutableCollection<in T>.removeAll(elements:
Iterable<T>): Boolean {\n    return removeAll(elements.convertToSetForSetOperationWith(this))\n}\n\n/**\n *
Removes all elements from this [MutableCollection] that are also contained in the given [elements] sequence.\n
*\npublic fun <T> MutableCollection<in T>.removeAll(elements: Sequence<T>): Boolean {\n    val set =
elements.convertToSetForSetOperation()\n    return set.isNotEmpty() && removeAll(set)\n}\n\n/**\n * Removes all elements from this [MutableCollection]
that are also contained in the given [elements] array.\n *\npublic fun <T> MutableCollection<in
T>.removeAll(elements: Array<out T>): Boolean {\n    return elements.isNotEmpty() &&
removeAll(elements.convertToSetForSetOperation())\n}\n\n/**\n * Retains only elements of this
[MutableCollection] that are contained in the given [elements] collection.\n *\npublic fun <T>
MutableCollection<in T>.retainAll(elements: Iterable<T>): Boolean {\n    return
retainAll(elements.convertToSetForSetOperationWith(this))\n}\n\n/**\n * Retains only elements of this
[MutableCollection] that are contained in the given [elements] array.\n *\npublic fun <T> MutableCollection<in
T>.retainAll(elements: Array<out T>): Boolean {\n    if (elements.isNotEmpty())\n        return
retainAll(elements.convertToSetForSetOperation())\n    else\n        return retainNothing()\n}\n\n/**\n * Retains only elements of this [MutableCollection] that are contained in the given [elements] sequence.\n
*\npublic fun <T> MutableCollection<in T>.retainAll(elements: Sequence<T>): Boolean {\n    val set =
elements.convertToSetForSetOperation()\n    if (set.isNotEmpty())\n        return retainAll(set)\n    else\n        return
retainNothing()\n}\n\nprivate fun MutableCollection<*>.retainNothing(): Boolean {\n    val result = isEmpty()\n    clear()\n    return result\n}\n\n/**\n * Removes all elements from this [MutableIterable] that match the given
[predicate].\n *\n * @return `true` if any element was removed from this collection, or `false` when no elements
were removed and collection was not modified.\n *\npublic fun <T> MutableIterable<T>.removeAll(predicate: (T)
-> Boolean): Boolean = filterInPlace(predicate, true)\n\n/**\n * Retains only elements of this [MutableIterable] that

```



```

match the given [predicate].\n * \n * @return `true` if any element was removed from this collection,
or `false` when all elements were retained and collection was not modified.\n * \n public fun <T>
MutableIterable<T>.retainAll(predicate: (T) -> Boolean): Boolean = filterInPlace(predicate, false)\n\nprivate fun
<T> MutableIterable<T>.filterInPlace(predicate: (T) -> Boolean, predicateResultToRemove: Boolean): Boolean {\n
var result = false\n with(iterator()) {\n while (hasNext())\n if (predicate(next()) ==
predicateResultToRemove) {\n remove()\n result = true\n }\n }\n return
result\n}\n}\n\n/**\n * Removes the element at the specified [index] from this list.\n * In Kotlin one should use the
[MutableList.removeAt] function instead.\n * \n @Deprecated("Use removeAt(index) instead.",
ReplaceWith("removeAt(index)"), level = DeprecationLevel.ERROR)\n @kotlin.internal.InlineOnly\n public inline
fun <T> MutableList<T>.remove(index: Int): T = removeAt(index)\n\n/**\n * Removes the first element from this
mutable list
and returns that removed element, or throws [NoSuchElementException] if this list is empty.\n
*\n @SinceKotlin("1.4")\n @WasExperimental(ExperimentalStdlibApi::class)\n public fun <T>
MutableList<T>.removeFirst(): T = if (isEmpty()) throw NoSuchElementException("List is empty.") else
removeAt(0)\n\n/**\n * Removes the first element from this mutable list and returns that removed element, or
returns `null` if this list is empty.\n
*\n @SinceKotlin("1.4")\n @WasExperimental(ExperimentalStdlibApi::class)\n public fun <T>
MutableList<T>.removeFirstOrNull(): T? = if (isEmpty()) null else removeAt(0)\n\n/**\n * Removes the last
element from this mutable list and returns that removed element, or throws [NoSuchElementException] if this list is
empty.\n * \n @SinceKotlin("1.4")\n @WasExperimental(ExperimentalStdlibApi::class)\n public fun <T>
MutableList<T>.removeLast(): T = if (isEmpty()) throw NoSuchElementException("List is empty.") else
removeAt(lastIndex)\n\n/**\n * Removes the last element
from this mutable list and returns that removed element, or returns `null` if this list is empty.\n
*\n @SinceKotlin("1.4")\n @WasExperimental(ExperimentalStdlibApi::class)\n public fun <T>
MutableList<T>.removeLastOrNull(): T? = if (isEmpty()) null else removeAt(lastIndex)\n\n/**\n * Removes all
elements from this [MutableList] that match the given [predicate].\n * \n * @return `true` if any element was
removed from this collection, or `false` when no elements were removed and collection was not modified.\n
*\n public fun <T> MutableList<T>.removeAll(predicate: (T) -> Boolean): Boolean = filterInPlace(predicate,
true)\n\n/**\n * Retains only elements of this [MutableList] that match the given [predicate].\n * \n * @return `true`
if any element was removed from this collection, or `false` when all elements were retained and collection was not
modified.\n * \n public fun <T> MutableList<T>.retainAll(predicate: (T) -> Boolean): Boolean =
filterInPlace(predicate, false)\n\nprivate fun
<T> MutableList<T>.filterInPlace(predicate: (T) -> Boolean, predicateResultToRemove: Boolean): Boolean {\n
if (this !is RandomAccess)\n return (this as MutableIterable<T>).filterInPlace(predicate,
predicateResultToRemove)\n var writeIndex: Int = 0\n for (readIndex in 0..lastIndex) {\n val element =
this[readIndex]\n if (predicate(element) == predicateResultToRemove)\n continue\n\n if (writeIndex
!= readIndex)\n this[writeIndex] = element\n\n writeIndex++\n }\n if (writeIndex < size) {\n for
(removeIndex in lastIndex downTo writeIndex)\n removeAt(removeIndex)\n\n return true\n } else {\n
return false\n }\n}\n}\n\n", /*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n
*\n @file:kotlin.jvm.JvmMultifileClass\n @file:kotlin.jvm.JvmName("CollectionsKt")\n\npackage
kotlin.collections\n\nprivate open class ReversedListReadOnly<out T>(private val delegate: List<T>) :
AbstractList<T>() {\n override val size: Int get() = delegate.size\n override fun get(index: Int): T =
delegate[reverseElementIndex(index)]\n}\n\nprivate class ReversedList<T>(private val delegate: MutableList<T>) :
AbstractMutableList<T>() {\n override val size: Int get() = delegate.size\n override fun get(index: Int): T =
delegate[reverseElementIndex(index)]\n\n override fun clear() = delegate.clear()\n override fun removeAt(index:
Int): T = delegate.removeAt(reverseElementIndex(index))\n\n override fun set(index: Int, element: T): T =

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samples.collections.Sequences.Building.buildSequenceYieldAll\n    */\n    public suspend fun yieldAll(elements:
Iterable<T>) {\n        if (elements is Collection && elements.isEmpty()) return\n        return
yieldAll(elements.iterator())\n    }\n\n    /**\n     * Yields potentially infinite sequence of values to the [Iterator]
being built\n     * and suspends until all these values are iterated and the next one is requested.\n     */\n     * The
sequence can be potentially infinite.\n     */\n     * @sample
samples.collections.Sequences.Building.buildSequenceYieldAll\n
    */\n    public suspend fun yieldAll(sequence: Sequence<T>) =
yieldAll(sequence.iterator())\n}\n\n@Deprecated("Use SequenceScope class instead."),
ReplaceWith("SequenceScope<T>"), level = DeprecationLevel.ERROR)\npublic typealias SequenceBuilder<T> =
SequenceScope<T>\n\nprivate typealias State = Int\n\nprivate const val State_NotReady: State = 0\n\nprivate const
val State_ManyNotReady: State = 1\n\nprivate const val State_ManyReady: State = 2\n\nprivate const val State_Ready:
State = 3\n\nprivate const val State_Done: State = 4\n\nprivate const val State_Failed: State = 5\n\nprivate class
SequenceBuilderIterator<T> : SequenceScope<T>(), Iterator<T>, Continuation<Unit> {\n    private var state =
State_NotReady\n    private var nextValue: T? = null\n    private var nextIterator: Iterator<T>? = null\n    var
nextStep: Continuation<Unit>? = null\n\n    override fun hasNext(): Boolean {\n        while (true) {\n            when
(state) {\n                State_NotReady -> {\n                    State_ManyNotReady ->\n                        if (nextIterator!!.hasNext()) {\n                            state =
State_ManyReady\n                            return true\n                        } else {\n                            nextIterator = null\n
}\n                    State_Done -> return false\n                    State_Ready, State_ManyReady -> return true\n                    else ->
throw exceptionalState()\n                }\n                state = State_Failed\n                val step = nextStep!!\n                nextStep =
null\n                step.resume(Unit)\n            }\n\n            override fun next(): T {\n                when (state) {\n                    State_NotReady, State_ManyNotReady -> return nextNotReady()\n                    State_ManyReady -> {\n                        state
= State_ManyNotReady\n                        return nextIterator!!.next()\n                    }\n                    State_Ready -> {\n                        state
= State_NotReady\n                        @Suppress("UNCHECKED_CAST")\n                        val
result = nextValue as T\n                        nextValue = null\n                        return result\n                    }\n                    else -> throw
exceptionalState()\n                }\n            }\n\n            private fun nextNotReady(): T {\n                if (!hasNext()) throw
NoSuchElementException() else return next()\n            }\n\n            private fun exceptionalState(): Throwable = when (state)
{\n                State_Done -> NoSuchElementException()\n                State_Failed -> IllegalStateException("Iterator has
failed.")\n                else -> IllegalStateException("Unexpected state of the iterator: $state")\n            }\n\n            override
suspend fun yield(value: T) {\n                nextValue = value\n                state = State_Ready\n                return
suspendCoroutineUninterceptedOrReturn { c ->\n                    nextStep = c\n                    COROUTINE_SUSPENDED\n                }\n            }\n\n            override suspend fun yieldAll(iterator: Iterator<T>) {\n                if (!iterator.hasNext()) return\n                nextIterator = iterator\n                state = State_ManyReady\n                return suspendCoroutineUninterceptedOrReturn
{ c ->\n                    nextStep = c\n                    COROUTINE_SUSPENDED\n                }\n            }\n\n            // Completion continuation
implementation\n            override fun resumeWith(result: Result<Unit>) {\n                result.getOrThrow() // just rethrow
exception if it is there\n                state = State_Done\n            }\n\n            override val context: CoroutineContext\n                get() =
EmptyCoroutineContext\n}\n\n"/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\ninternal fun checkWindowSizeStep(size: Int, step:
Int) {\n    require(size > 0 && step > 0) {\n        if (size != step)\n            "Both size $size and step $step must be
greater than zero.\n        else\n            "size $size must be greater than zero.\n    }\n}\n\ninternal fun <T>
Sequence<T>.windowedSequence(size: Int, step:
Int, partialWindows: Boolean, reuseBuffer: Boolean): Sequence<List<T>> {\n    checkWindowSizeStep(size,
step)\n    return Sequence { windowedIterator(iterator(), size, step, partialWindows, reuseBuffer) }\n}\n\ninternal
fun <T> windowedIterator(iterator: Iterator<T>, size: Int, step: Int, partialWindows: Boolean, reuseBuffer:
Boolean): Iterator<List<T>> {\n    if (!iterator.hasNext()) return EmptyIterator\n    return iterator<List<T>> {\n        val
bufferInitialCapacity = size.coerceAtMost(1024)\n        val gap = step - size\n        if (gap >= 0) {\n            var
buffer = ArrayList<T>(bufferInitialCapacity)\n            var skip = 0\n            for (e in iterator) {\n                if (skip >

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0) { skip -- 1; continue }\n          buffer.add(e)\n          if (buffer.size == size) {\n          yield(buffer)\n          if (reuseBuffer) buffer.clear() else buffer = ArrayList(size)\n          skip = gap\n          }\n}\n\n    if (buffer.isEmpty()) {\n    if (partialWindows || buffer.size == size) yield(buffer)\n    }\n} else {\n    var buffer = RingBuffer<T>(bufferInitialCapacity)\n    for (e in iterator) {\n    buffer.add(e)\n    if (buffer.isFull()) {\n    if (buffer.size < size) { buffer =\n    buffer.expanded(maxCapacity = size); continue }\n    yield(if (reuseBuffer) buffer else\n    ArrayList(buffer))\n    buffer.removeFirst(step)\n    }\n    if (partialWindows) {\n    while (buffer.size > step) {\n    yield(if (reuseBuffer) buffer else ArrayList(buffer))\n    buffer.removeFirst(step)\n    }\n    if (buffer.isEmpty()) yield(buffer)\n    }\n}\n}\n\ninternal class MovingSubList<out E>(private val list: List<E>) : AbstractList<E>(), RandomAccess {\nprivate\n    var fromIndex: Int = 0\n    private var _size: Int = 0\n\n    fun move(fromIndex: Int, toIndex: Int) {\n    checkRangeIndexes(fromIndex, toIndex, list.size)\n    this.fromIndex = fromIndex\n    this._size = toIndex -\n    fromIndex\n    }\n\n    override fun get(index: Int): E {\n    checkElementIndex(index, _size)\n    return\n    list[fromIndex + index]\n    }\n\n    override val size: Int get() = _size\n}\n\n/**\n * Provides ring buffer\n implementation.\n * Buffer overflow is not allowed so [add] doesn't overwrite tail but raises an exception.\n */\nprivate class RingBuffer<T>(private val buffer: Array<Any?>, filledSize: Int) : AbstractList<T>(),\nRandomAccess {\n    init {\n    require(filledSize >= 0) { \"ring buffer filled size should not be negative but it is\n    $filledSize\" }\n    require(filledSize <= buffer.size) { \"ring buffer filled size: $filledSize cannot be larger than\n    the buffer size: ${buffer.size}\" }\n    }\n\n    constructor(capacity: Int)\n    : this(arrayOfNulls<Any?>(capacity), 0)\n\n    private val capacity = buffer.size\n    private var startIndex: Int =\n    0\n\n    override var size: Int = filledSize\n    private set\n\n    override fun get(index: Int): T {\n    checkElementIndex(index, size)\n    @Suppress(\"UNCHECKED_CAST\")\n    return\n    buffer[startIndex.forward(index)] as T\n    }\n\n    fun isFull() = size == capacity\n\n    override fun iterator():\n    Iterator<T> = object : AbstractIterator<T>() {\n    private var count = size\n    private var index = startIndex\n\n    override fun computeNext() {\n    if (count == 0) {\n    done()\n    } else {\n    @Suppress(\"UNCHECKED_CAST\")\n    setNext(buffer[index] as T)\n    index =\n    index.forward(1)\n    count--\n    }\n    }\n\n    @Suppress(\"UNCHECKED_CAST\")\n    override fun <T> toArray(array: Array<T>): Array<T> {\n    val result: Array<T?> =\n    if (array.size < this.size) array.copyOf(this.size) else array as Array<T?>\n\n    val size = this.size\n    var widx = 0\n    var idx = startIndex\n    while (widx < size && idx < capacity) {\n    result[widx] =\n    buffer[idx] as T\n    widx++\n    idx++\n    }\n\n    idx = 0\n    while (widx < size) {\n    result[widx] = buffer[idx] as T\n    widx++\n    idx++\n    }\n\n    if (result.size > this.size)\n    result[this.size] = null\n\n    return result as Array<T>\n    }\n\n    override fun toArray(): Array<Any?> {\n    return toArray(arrayOfNulls(size))\n    }\n\n    /**\n     * Creates a new ring buffer with the capacity equal to the\n     minimum of [maxCapacity] and 1.5 * [capacity].\n     * The returned ring buffer contains the same elements as this\n     ring buffer.\n     */\n    fun expanded(maxCapacity: Int): RingBuffer<T> {\n    val newCapacity = (capacity +\n    (capacity shr 1) + 1).coerceAtMost(maxCapacity)\n\n    val newBuffer = if (startIndex == 0) buffer.copyOf(newCapacity) else toArray(arrayOfNulls(newCapacity))\n\n    return RingBuffer(newBuffer, size)\n    }\n\n    /**\n     * Add [element] to the buffer or fail with\n     [IllegalStateException] if no free space available in the buffer\n     */\n    fun add(element: T) {\n    if (isFull()) {\n    throw IllegalStateException(\"ring buffer is full\")\n    }\n\n    buffer[startIndex.forward(size)] =\n    element\n    size++\n    }\n\n    /**\n     * Removes [n] first elements from the buffer or fails with\n     [IllegalArgumentException] if not enough elements in the buffer to remove\n     */\n    fun removeFirst(n: Int) {\n    require(n >= 0) { \"n shouldn't be negative but it is $n\" }\n    require(n <= size) { \"n shouldn't be greater than\n    the buffer size: n = $n, size = $size\" }\n\n    if (n > 0) {\n    val start = startIndex\n    val end =\n    start.forward(n)\n\n    if

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(start > end) {\n        buffer.fill(null, start, capacity)\n        buffer.fill(null, 0, end)\n    } else {\n        buffer.fill(null, start, end)\n    }\n    startIndex = end\n    size -= n\n}\n}\n\n@Suppress("NOTHING_TO_INLINE")\n private inline fun Int.forward(n: Int): Int = (this + n) %
capacity\n}\n", "/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n *
Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\npackage kotlin.collections\n// UByteArray
=====
\n@Exp
erimentalUnsignedTypes\nprivate fun partition(\n    array: UByteArray, left: Int, right: Int): Int {\n    var i = left\n    var j = right\n    val pivot = array[(left + right) / 2]\n    while (i <= j) {\n        while (array[i] < pivot)\n            i++\n        while
(array[j] > pivot)\n            j--\n        if (i <= j) {\n            val tmp = array[i]\n            array[i] = array[j]\n
array[j] = tmp\n            i++\n            j--\n        }\n    }\n    return i\n}\n\n@ExperimentalUnsignedTypes\nprivate fun
quickSort(\n    array: UByteArray, left: Int, right: Int) {\n    val index = partition(array, left, right)\n    if (left < index
- 1)\n        quickSort(array, left, index - 1)\n    if (index < right)\n        quickSort(array, index, right)\n}\n\n//
UShortArray
=====
\n@Exp
erimentalUnsignedTypes\nprivate fun partition(\n    array: UShortArray, left: Int, right: Int): Int {\n    var i = left\n
    var j = right\n    val pivot = array[(left + right) / 2]\n    while (i <= j) {\n        while (array[i] < pivot)\n
            i++\n        while (array[j] > pivot)\n            j--\n        if (i <= j) {\n            val tmp = array[i]\n
            array[i] =
array[j]\n            array[j] = tmp\n            i++\n            j--\n        }\n    }\n    return
i\n}\n\n@ExperimentalUnsignedTypes\nprivate fun quickSort(\n    array: UShortArray, left: Int, right: Int) {\n    val
index = partition(array, left, right)\n    if (left < index - 1)\n        quickSort(array, left, index - 1)\n    if (index <
right)\n        quickSort(array, index, right)\n}\n\n// UIntArray
=====
\n@Exp
erimentalUnsignedTypes\nprivate fun partition(\n    array: UIntArray, left: Int, right: Int): Int {\n    var i = left\n
    var j = right\n    val pivot = array[(left + right) / 2]\n    while (i <= j) {\n        while (array[i] < pivot)\n
            i++\n        while (array[j] > pivot)\n            j--\n        if (i <= j) {\n            val tmp = array[i]\n
            array[i] =
array[j]\n            array[j] = tmp\n            i++\n            j--\n        }\n    }\n    return
i\n}\n\n@ExperimentalUnsignedTypes\nprivate fun quickSort(\n    array: UIntArray, left: Int, right: Int) {\n    val
index = partition(array, left, right)\n    if (left < index - 1)\n        quickSort(array, left, index - 1)\n    if (index <
right)\n        quickSort(array, index, right)\n}\n\n// ULongArray
=====
\n@Exp
erimentalUnsignedTypes\nprivate fun partition(\n    array: ULongArray, left: Int, right: Int): Int {\n    var i = left\n
    var j = right\n    val pivot = array[(left + right) / 2]\n    while (i <= j) {\n        while (array[i] < pivot)\n
            i++\n        while (array[j] > pivot)\n            j--\n        if (i <= j) {\n            val tmp = array[i]\n
            array[i] =
array[j]\n            array[j] = tmp\n            i++\n            j--\n        }\n    }\n    return
i\n}\n\n@ExperimentalUnsignedTypes\nprivate fun quickSort(\n    array: ULongArray, left: Int, right: Int) {\n    val
index = partition(array,
left, right)\n    if (left < index - 1)\n        quickSort(array, left, index - 1)\n    if (index < right)\n        quickSort(array,
index, right)\n}\n\n// Interfaces
=====
\n/*\n
* Sorts the given array using qsort algorithm.\n */\n@ExperimentalUnsignedTypes\ninternal fun sortArray(array:
UByteArray, fromIndex: Int, toIndex: Int) = quickSort(array, fromIndex, toIndex -
1)\n@ExperimentalUnsignedTypes\ninternal fun sortArray(array: UShortArray, fromIndex: Int, toIndex: Int) =
quickSort(array, fromIndex, toIndex - 1)\n@ExperimentalUnsignedTypes\ninternal fun sortArray(array: UIntArray,
fromIndex: Int, toIndex: Int) = quickSort(array, fromIndex, toIndex -
1)\n@ExperimentalUnsignedTypes\ninternal fun sortArray(array: ULongArray, fromIndex: Int, toIndex: Int) =
quickSort(array, fromIndex, toIndex - 1)", "/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of

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```

package kotlin.internal.InlineOnly
 * Compares this object with the specified object
for order. Returns zero if this object is equal
 * to the specified [other] object, a negative number if it's less than
[other], or a positive number
 * if it's greater than [other].
 * This function delegates to
[Comparable.compareTo] and allows to call it in infix form.
 *
@InlineOnly
@SinceKotlin("1.6")
public
inline infix fun <T> Comparable<T>.compareTo(other: T): Int =
    this.compareTo(other)
 * Copyright
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 * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.
package
kotlin.contracts
import kotlin.internal.ContractsDsl
import kotlin.internal.InlineOnly
 * This marker
distinguishes the
experimental contract declaration API and is used to opt-in for that feature
 * when declaring contracts of user
functions.
 * Any usage of a declaration annotated with `@ExperimentalContracts` must be accepted either
by
 * annotating that usage with the [OptIn] annotation, e.g. `@OptIn(ExperimentalContracts::class)`,
 * or by
using the compiler argument `-opt-in=kotlin.contracts.ExperimentalContracts`.
 *
@Retention(AnnotationRetention.BINARY)
@SinceKotlin("1.3")
@RequiresOptIn
@MustBeDocumente
d
public annotation class ExperimentalContracts
 * Provides a scope, where the functions of the contract
DSL, such as [returns], [callsInPlace], etc.,
 * can be used to describe the contract of a function.
 * This type is
used as a receiver type of the lambda function passed to the [contract] function.
 * @see contract
 *
@ContractsDsl
@ExperimentalContracts
@SinceKotlin("1.3")
public interface ContractBuilder {
 *
 * Describes a situation
when a function returns normally, without any exceptions thrown.
 *
 * Use [SimpleEffect.implies] function
to describe a conditional effect that happens in such case.
 *
 *
 * // @sample
samples.contracts.returnsContract
 @ContractsDsl public fun returns(): Returns
 *
 * Describes a
situation when a function returns normally with the specified return [value].
 *
 * The possible values of
[value] are limited to `true`, `false` or `null`.
 *
 * Use [SimpleEffect.implies] function to describe a
conditional effect that happens in such case.
 *
 *
 * // @sample samples.contracts.returnsTrueContract
// @sample samples.contracts.returnsFalseContract
// @sample samples.contracts.returnsNullContract
@ContractsDsl public fun returns(value: Any?): Returns
 *
 * Describes a situation when a function
returns normally with any value that is not `null`.
 *
 * Use [SimpleEffect.implies] function
to describe a conditional effect that happens in such case.
 *
 *
 * // @sample
samples.contracts.returnsNotNullContract
 @ContractsDsl public fun returnsNotNull(): ReturnsNotNull
 *
 * Specifies that the function parameter [lambda] is invoked in place.
 *
 * This contract specifies
that:
 *
 * 1. the function [lambda] can only be invoked during the call of the owner function,
 * and it won't be
invoked after that owner function call is completed;
 *
 * 2. _(optionally)_ the function [lambda] is invoked the
amount of times specified by the [kind] parameter,
 * see the [InvocationKind] enum for possible values.
 *
 * A function declaring the `callsInPlace` effect must be _inline_.
 *
 *
 * // @sample
samples.contracts.callsInPlaceAtMostOnceContract
 * @sample
samples.contracts.callsInPlaceAtLeastOnceContract
 * @sample
samples.contracts.callsInPlaceExactlyOnceContract
 * @sample
samples.contracts.callsInPlaceUnknownContract
 *
 *
 * @ContractsDsl public fun <R> callsInPlace(lambda: Function<R>, kind: InvocationKind =
InvocationKind.UNKNOWN): CallsInPlace
 *
 * Specifies how many times a function invokes its function
parameter in place.
 *
 * See [ContractBuilder.callsInPlace] for the details of the call-in-place function contract.
 *
 *
 *
@ContractsDsl
@ExperimentalContracts
@SinceKotlin("1.3")
public enum class InvocationKind {
 *
 * A function parameter will be invoked one time or not invoked at all.
 *
 *
 * // @sample
samples.contracts.callsInPlaceAtMostOnceContract
 @ContractsDsl AT_MOST_ONCE,
 *
 * A
function parameter will be invoked one or more times.
 *
 *
 * // @sample
samples.contracts.callsInPlaceAtLeastOnceContract
 @ContractsDsl AT_LEAST_ONCE,
 *
 * A

```

```

function parameter will be invoked exactly one time.\n    *\n    */\n    // @sample
samples.contracts.callsInPlaceExactlyOnceContract\n
    @ContractsDsl EXACTLY_ONCE,\n\n    /**\n     * A function parameter is called in place, but it's unknown how
many times it can be called.\n    *\n    */\n    // @sample samples.contracts.callsInPlaceUnknownContract\n
@ContractsDsl UNKNOWN\n}\n\n/**\n * Specifies the contract of a function.\n *\n * The contract description
must be at the beginning of a function and have at least one effect.\n *\n * Only the top-level functions can have a
contract for now.\n *\n * @param builder the lambda where the contract of a function is described with the help of
the [ContractBuilder] members.\n *\n */\n * @sample samples.contracts.returnsContract\n * @sample
samples.contracts.returnsTrueContract\n * @sample samples.contracts.returnsFalseContract\n * @sample
samples.contracts.returnsNullContract\n * @sample samples.contracts.returnsNotNullContract\n * @sample
samples.contracts.callsInPlaceAtMostOnceContract\n * @sample
samples.contracts.callsInPlaceAtLeastOnceContract\n * @sample
samples.contracts.callsInPlaceExactlyOnceContract\n *
@sample
samples.contracts.callsInPlaceUnknownContract\n\n@ContractsDsl\n@ExperimentalContracts\n@InlineOnly\n@
SinceKotlin("1.3")\n@Suppress("UNUSED_PARAMETER")\npublic inline fun contract(builder:
ContractBuilder.() -> Unit) { }\n", "/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines\n\n/**\n * Marks coroutine context element that
intercepts coroutine continuations.\n * The coroutines framework uses [ContinuationInterceptor.Key] to retrieve the
interceptor and\n * intercepts all coroutine continuations with [interceptContinuation] invocations.\n *\n *
[ContinuationInterceptor] behaves like a [polymorphic element][AbstractCoroutineContextKey], meaning that\n *
its implementation delegates [get][CoroutineContext.Element.get] and
[minusKey][CoroutineContext.Element.minusKey]\n
* to [getPolymorphicElement] and [minusPolymorphicKey] respectively.\n * [ContinuationInterceptor] subtypes
can be extracted from the coroutine context using either [ContinuationInterceptor.Key]\n * or subtype key if it
extends [AbstractCoroutineContextKey].\n */\n\n@SinceKotlin("1.3")\npublic interface ContinuationInterceptor :
CoroutineContext.Element {\n    /**\n     * The key that defines *the* context interceptor.\n     */\n    companion
object Key : CoroutineContext.Key<ContinuationInterceptor>\n\n    /**\n     * Returns continuation that wraps the
original [continuation], thus intercepting all resumptions.\n     * This function is invoked by coroutines framework
when needed and the resulting continuations are\n     * cached internally per each instance of the original
[continuation].\n     *\n     * This function may simply return original [continuation] if it does not want to intercept
this particular continuation.\n     *\n     * When the original [continuation]
completes, coroutine framework invokes [releaseInterceptedContinuation]\n     * with the resulting continuation if it
was intercepted, that is if `interceptContinuation` had previously\n     * returned a different continuation instance.\n     */\n    public fun <T> interceptContinuation(continuation: Continuation<T>): Continuation<T>\n\n    /**\n     *
Invoked for the continuation instance returned by [interceptContinuation] when the original\n     * continuation
completes and will not be used anymore. This function is invoked only if [interceptContinuation]\n     * had returned
a different continuation instance from the one it was invoked with.\n     *\n     * Default implementation does
nothing.\n     *\n     * @param continuation Continuation instance returned by this interceptor's
[interceptContinuation] invocation.\n     */\n    public fun releaseInterceptedContinuation(continuation:
Continuation<*>) {\n        /* do nothing by default */\n    }\n\n    public override operator
fun <E : CoroutineContext.Element> get(key: CoroutineContext.Key<E>): E? {\n        // getPolymorphicKey
specialized for ContinuationInterceptor key\n        @OptIn(ExperimentalStdlibApi::class)\n        if (key is
AbstractCoroutineContextKey<*, *>) {\n            @Suppress("UNCHECKED_CAST")\n            return if
(key.isSubKey(this.key)) key.tryCast(this) as? E else null\n        }\n        @Suppress("UNCHECKED_CAST")\n        return if (ContinuationInterceptor === key) this as E else null\n    }\n\n    public override fun minusKey(key:
CoroutineContext.Key<*>): CoroutineContext {\n        // minusPolymorphicKey specialized for

```

```

ContinuationInterceptor key\n    @OptIn(ExperimentalStdlibApi::class)\n    if (key is
AbstractCoroutineContextKey<*, *>) {\n        return if (key.isSubKey(this.key) && key.tryCast(this) != null)
EmptyCoroutineContext else this\n    }\n    return if (ContinuationInterceptor === key)
EmptyCoroutineContext else this\n } \n} \n", "/*\n
* Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code
is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
kotlin.coroutines\n\n/**\n * Persistent context for the coroutine. It is an indexed set of [Element] instances.\n * An
indexed set is a mix between a set and a map.\n * Every element in this set has a unique [Key].\n
*\n * @SinceKotlin("1.3")\n */\n public interface CoroutineContext {\n    /**\n     * Returns the element with the given
[key] from this context or `null`.\n     */\n    public operator fun <E : Element> get(key: Key<E>): E?\n    /**\n     * Accumulates entries of this context starting with [initial] value and applying [operation]\n     * from left to right to
current accumulator value and each element of this context.\n     */\n    public fun <R> fold(initial: R, operation: (R,
Element) -> R): R\n    /**\n     * Returns a context containing elements from this
context and elements from other [context].\n     * The elements from this context with the same key as in the other
one are dropped.\n     */\n    public operator fun plus(context: CoroutineContext): CoroutineContext =\n        if
(context === EmptyCoroutineContext) this else // fast path -- avoid lambda creation\n            context.fold(this) {
acc, element ->\n                val removed = acc.minusKey(element.key)\n                if (removed ===
EmptyCoroutineContext) element else {\n                    // make sure interceptor is always last in the context (and thus
is fast to get when present)\n                    val interceptor = removed[ContinuationInterceptor]\n                    if
(interceptor == null) CombinedContext(removed, element) else {\n                        val left =
removed.minusKey(ContinuationInterceptor)\n                        if (left === EmptyCoroutineContext)\n                            CombinedContext(element, interceptor) else\n                                CombinedContext(CombinedContext(left,
element), interceptor)\n                    }\n                }\n            }\n    /**\n     * Returns a context containing elements
from this context, but without an element with\n     * the specified [key].\n     */\n    public fun minusKey(key:
Key<*>): CoroutineContext\n    /**\n     * Key for the elements of [CoroutineContext]. [E] is a type of element
with this key.\n     */\n    public interface Key<E : Element>\n    /**\n     * An element of the [CoroutineContext].
An element of the coroutine context is a singleton context by itself.\n     */\n    public interface Element :
CoroutineContext {\n        /**\n         * A key of this coroutine context element.\n         */\n        public val key:
Key<*>\n        public override operator fun <E : Element> get(key: Key<E>): E? =\n            if (this.key == key) this as E else null\n        public override fun
<R> fold(initial: R, operation: (R, Element) ->
R): R =\n            operation(initial, this)\n        public override fun minusKey(key: Key<*>): CoroutineContext =\n            if (this.key == key) EmptyCoroutineContext else this\n    }\n} \n", "/*\n
* Copyright 2010-2020 JetBrains s.r.o.
and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license
that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines\n\nimport
kotlin.coroutines.CoroutineContext.Element\n\nimport kotlin.coroutines.CoroutineContext.Key\n\n/**\n * Base class
for [CoroutineContext.Element] implementations.\n * @SinceKotlin("1.3")\n */\n public abstract class
AbstractCoroutineContextElement(public override val key: Key<*>) : Element\n\n/**\n * Base class for
[CoroutineContext.Key] associated with polymorphic [CoroutineContext.Element] implementation.\n *
Polymorphic element implementation implies delegating its [get][Element.get] and
[minusKey][Element.minusKey]\n * to [getPolymorphicElement]
and [minusPolymorphicKey] respectively.\n * Polymorphic elements can be extracted from the coroutine
context using both element key and its supertype key.\n * Example of polymorphic elements:\n * ```\n * open class
BaseElement : CoroutineContext.Element {\n *     companion object Key : CoroutineContext.Key<BaseElement>\n *
override val key: CoroutineContext.Key<*> get() = Key\n *     // It is important to use getPolymorphicKey and
minusPolymorphicKey\n *     override fun <E : CoroutineContext.Element> get(key: CoroutineContext.Key<E>):
E? = getPolymorphicElement(key)\n *     override fun minusKey(key: CoroutineContext.Key<*>):
CoroutineContext = minusPolymorphicKey(key)\n * }\n * class DerivedElement : BaseElement() {\n *

```



```

companion object Key : AbstractCoroutineContextKey<BaseElement, DerivedElement>(BaseElement, { it as?
DerivedElement })\n * }\n * // Now it is possible to query both `BaseElement` and `DerivedElement`\n *
someContext[BaseElement] // Returns BaseElement?,
non-null both for BaseElement and DerivedElement instances\n * someContext[DerivedElement] // Returns
DerivedElement?, non-null only for DerivedElement instance\n * ```\n * @param B base class of a polymorphic
element\n * @param baseKey an instance of base key\n * @param E element type associated with the current key\n
* @param safeCast a function that can safely cast abstract [CoroutineContext.Element] to the concrete [E] type\n *
and return the element if it is a subtype of [E] or `null` otherwise.\n
*\n@SinceKotlin("1.3")\n@ExperimentalStdlibApi\npublic abstract class AbstractCoroutineContextKey<B :
Element, E : B>(\n baseKey: Key<B>,\n private val safeCast: (element: Element) -> E?)\n) : Key<E> {\n
private val topmostKey: Key<*> = if (baseKey is AbstractCoroutineContextKey<*, *>) baseKey.topmostKey else
baseKey\n\n internal fun tryCast(element: Element): E? = safeCast(element)\n internal fun isSubKey(key:
Key<*>): Boolean = key === this || topmostKey
=== key\n}\n\n/**\n * Returns the current element if it is associated with the given [key] in a polymorphic manner
or `null` otherwise.\n * This method returns non-null value if either [Element.key] is equal to the given [key] or if
the [key] is associated\n * with [Element.key] via [AbstractCoroutineContextKey].\n * See
[AbstractCoroutineContextKey] for the example of usage.\n
*\n@SinceKotlin("1.3")\n@ExperimentalStdlibApi\npublic fun <E : Element>
Element.getPolymorphicElement(key: Key<E>): E? {\n if (key is AbstractCoroutineContextKey<*, *>) {\n
@Suppress("UNCHECKED_CAST")\n return if (key.isSubKey(this.key)) key.tryCast(this) as? E else null\n
}\n @Suppress("UNCHECKED_CAST")\n return if (this.key === key) this as E else null\n}\n\n/**\n *
Returns empty coroutine context if the element is associated with the given [key] in a polymorphic manner\n * or
`null` otherwise.\n * This method returns empty context if either [Element.key] is equal to the
given [key] or if the [key] is associated\n * with [Element.key] via [AbstractCoroutineContextKey].\n * See
[AbstractCoroutineContextKey] for the example of usage.\n
*\n@SinceKotlin("1.3")\n@ExperimentalStdlibApi\npublic fun Element.minusPolymorphicKey(key: Key<*>):
CoroutineContext {\n if (key is AbstractCoroutineContextKey<*, *>) {\n return if (key.isSubKey(this.key)
&& key.tryCast(this) != null) EmptyCoroutineContext else this\n }\n return if (this.key === key)
EmptyCoroutineContext else this\n}\n\n/**\n * An empty coroutine context.\n *\n@SinceKotlin("1.3")\npublic
object EmptyCoroutineContext : CoroutineContext, Serializable {\n private const val serialVersionUID: Long =
0\n private fun readResolve(): Any = EmptyCoroutineContext\n\n public override fun <E : Element> get(key:
Key<E>): E? = null\n public override fun <R> fold(initial: R, operation: (R, Element) -> R): R = initial\n
public override fun plus(context: CoroutineContext): CoroutineContext
= context\n public override fun minusKey(key: Key<*>): CoroutineContext = this\n public override fun
hashCode(): Int = 0\n public override fun toString(): String = "EmptyCoroutineContext"\n}\n\n//-----
- internal impl -----
\n\n// this class is not exposed, but is hidden inside implementations\n// this is a left-
biased list, so that `plus` works naturally\n@SinceKotlin("1.3")\ninternal class CombinedContext(\n private val
left: CoroutineContext,\n private val element: Element\n) : CoroutineContext, Serializable {\n\n override fun <E
: Element> get(key: Key<E>): E? {\n var cur = this\n while (true) {\n cur.element[key]?.let { return
it }\n val next = cur.left\n if (next is CombinedContext) {\n cur = next\n } else {\n
return next[key]\n }\n }\n\n public override fun <R> fold(initial: R, operation: (R, Element) -
> R):
R =\n operation(left.fold(initial, operation), element)\n\n public override fun minusKey(key: Key<*>):
CoroutineContext {\n element[key]?.let { return left }\n val newLeft = left.minusKey(key)\n return
when {\n newLeft === left -> this\n newLeft === EmptyCoroutineContext -> element\n else ->
CombinedContext(newLeft, element)\n }\n }\n\n private fun size(): Int {\n var cur = this\n var size
= 2\n while (true) {\n cur = cur.left as? CombinedContext ?: return size\n size++\n }\n }\n\n private fun
contains(element: Element): Boolean =\n get(element.key) == element\n\n private fun

```

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containsAll(context: CombinedContext): Boolean {
    var cur = context
    while (true) {
        if (!contains(cur.element)) return false
        val next = cur.left
        if (next is CombinedContext) {
            cur = next
        }
    }
    else {
        return contains(next as Element)
    }
}

override fun equals(other: Any?): Boolean =
    this === other || other is CombinedContext && other.size() == size() &&
    other.containsAll(this)

override fun hashCode(): Int = left.hashCode() + element.hashCode()

override fun toString(): String =
    "[" + fold("") { acc, element ->
        if (acc.isEmpty()) element.toString() else
        "$acc, $element"
    } + "]"

private fun writeReplace(): Any {
    val n = size()
    val elements =
        arrayOfNulls<CoroutineContext>(n)
    var index = 0
    fold(Unit) { _, element -> elements[index++] =
        element }
    check(index == n)
    @Suppress("UNCHECKED_CAST")
    return Serialized(elements
        as Array<CoroutineContext>)
}

private class Serialized(val elements: Array<CoroutineContext>) :
    Serializable {
    companion object {
        private const val serialVersionUID:
            Long = 0L
    }

    private fun readResolve(): Any = elements.fold(EmptyCoroutineContext,
        CoroutineContext::plus)
}

/*
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 * license/LICENSE.txt file.
 */

@file:kotlin.jvm.JvmName("IntrinsicsKt")
@file:kotlin.jvm.JvmMultifileClass
package
kotlin.coroutines.intrinsics
import kotlin.contracts.*
import kotlin.coroutines.*
import
kotlin.internal.InlineOnly

/**
 * Obtains the current continuation instance inside suspend functions and either
 * suspends currently running coroutine or returns result immediately without suspension.
 * If the [block] returns the special [COROUTINE_SUSPENDED] value, it means that suspend function did suspend the execution
 * and will not return any result immediately. In this case, the [Continuation] provided to the [block] shall
 * be resumed by invoking [Continuation.resumeWith] at some moment in the future when the result becomes
 * available to resume the computation. Otherwise, the return value of the [block] must have a type assignable
 * to [T] and represents the result of this suspend function. It means that the execution was not suspended and the
 * [Continuation] provided to the [block] shall not be invoked. As the result type of the [block] is declared as
 * `Any?` and cannot be correctly type-checked, its proper return type remains on the conscience of the suspend
 * function's author. Invocation of [Continuation.resumeWith] resumes coroutine directly in the invoker's
 * thread without going through the [ContinuationInterceptor] that might be present in the coroutine's
 * [CoroutineContext]. It is the invoker's responsibility to ensure that a proper invocation context is established.
 * [Continuation.intercepted] can be used to acquire the intercepted continuation. Note
 * that it is not recommended to call either [Continuation.resume] nor [Continuation.resumeWithException] functions
 * synchronously in the same stackframe where suspension function is run. Use [suspendCoroutine] as a safer way
 * to obtain current continuation instance.
 */

@SinceKotlin("1.3")
@InlineOnly
@Suppress("UNUSED_PARAMETER",
    "RedundantSuspendModifier")
public suspend inline fun <T>
suspendCoroutineUninterceptedOrReturn(crossinline block: (Continuation<T>) -> Any?): T {
    contract {
        callsInPlace(block, InvocationKind.EXACTLY_ONCE)
    }
    throw NotImplementedError("Implementation of
suspendCoroutineUninterceptedOrReturn is intrinsic")

    /**
     * This value is used as a return value of
[suspendCoroutineUninterceptedOrReturn] `block` argument to state that
the execution was suspended and will
not return any result immediately.
**Note: this value should not be used in general code.**
Using it outside
of the context of `suspendCoroutineUninterceptedOrReturn`
function return value (including, but not limited to, storing this value in other properties, returning it from other
functions, etc) can lead to unspecified behavior of the code.
*/

    // It is implemented as property with getter to
avoid ProGuard <clinit> problem with multifile IntrinsicsKt class
@SinceKotlin("1.3")
public val
COROUTINE_SUSPENDED: Any get() = CoroutineSingletons.COROUTINE_SUSPENDED

    // Using enum
here ensures two important properties:
1. It makes SafeContinuation serializable with all kinds of serialization
frameworks (since all of them natively support enums)
2. It improves debugging experience, since you clearly

```

see toString() value of those objects and what package they come from\n@SinceKotlin("1.3")\n@PublishedApi // This class is Published API via serialized representation of SafeContinuation, don't rename/move\ninternal enum class CoroutineSingletons { COROUTINE\_SUSPENDED, UNDECIDED, RESUMED }\n","/\*\n \* Copyright 2010-2018

JetBrains s.r.o. and Kotlin Programming Language contributors.\n \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n \*/\n\npackage kotlin.experimental\n\n/\*\* Performs a bitwise AND operation between the two values.

\*\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline infix fun Byte.and(other: Byte): Byte = (this.toInt() and other.toInt()).toByte()\n\n/\*\* Performs a bitwise OR operation between the two values.

\*\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline infix fun Byte.or(other: Byte): Byte = (this.toInt() or other.toInt()).toByte()\n\n/\*\* Performs a bitwise XOR operation between the two values.

\*\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline infix fun Byte.xor(other: Byte): Byte = (this.toInt() xor other.toInt()).toByte()\n\n/\*\* Inverts the bits in this value.

\*\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.inv(): Byte = (this.toInt().inv()).toByte()\n\n/\*\*

Performs a bitwise AND operation between the two values.

\*\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline infix fun Short.and(other: Short): Short = (this.toInt() and other.toInt()).toShort()\n\n/\*\* Performs a bitwise OR operation between the two values.

\*\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline infix fun Short.or(other: Short): Short = (this.toInt() or other.toInt()).toShort()\n\n/\*\* Performs a bitwise XOR operation between the two values.

\*\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline infix fun Short.xor(other: Short): Short = (this.toInt() xor other.toInt()).toShort()\n\n/\*\* Inverts the bits in this value.

\*\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline fun Short.inv(): Short = (this.toInt().inv()).toShort()\n\n","/\*\n \* Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n \* Use of this source code is governed by the Apache

2.0 license that can be found in the license/LICENSE.txt file.\n \*/\n\npackage kotlin.experimental\n\n/\*\*\n \* The experimental marker for type inference augmenting annotations.\n \* Any usage of a declaration annotated with `@ExperimentalTypeInference` must be accepted either by\n \* annotating that usage with the [OptIn] annotation, e.g. `@OptIn(ExperimentalTypeInference::class)`,\n \* or by using the compiler argument `-opt-in=kotlin.experimental.ExperimentalTypeInference`.\n \*/\n@RequiresOptIn(level =

RequiresOptIn.Level.ERROR)\n@MustBeDocumented\n@Retention(AnnotationRetention.BINARY)\n@Target(AnnotationTarget.ANNOTATION\_CLASS)\n@SinceKotlin("1.3")\npublic annotation class

ExperimentalTypeInference\n","/\*\n \* Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n \*/\n\npackage kotlin.internal\n\n/\*\* Specifies that the corresponding type should be ignored during type inference.\n

\*\n@Target(AnnotationTarget.TYPE)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class NoInfer\n\n/\*\* Specifies that the constraint built for the type during type inference should be an equality one.\n

\*\n@Target(AnnotationTarget.TYPE)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class Exact\n\n/\*\* Specifies that a corresponding member has the lowest priority in overload resolution.\n

\*\n@Target(AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY, AnnotationTarget.CONSTRUCTOR)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class LowPriorityInOverloadResolution\n\n/\*\* Specifies that the corresponding member has the highest priority in overload resolution. Effectively this means that\n \* an extension annotated with this annotation will win in overload resolution over a member with the same signature.\n \*/\n@Target(AnnotationTarget.FUNCTION,

AnnotationTarget.PROPERTY)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class HidesMembers\n\n/\*\* The value of this type parameter should be mentioned in input types (argument types, receiver type or expected type).\n

```

*/\n@Target(AnnotationTarget.TYPE_PARAMETER)\n@Retention(AnnotationRetention.BINARY)\ninternal
annotation class OnlyInputTypes\n\n/**\n * Specifies that this function should not be called directly without
inlining\n */\n@Target(AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY,
AnnotationTarget.PROPERTY_GETTER,
AnnotationTarget.PROPERTY_SETTER)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class
InlineOnly\n\n/**\n * Specifies that this declaration can have dynamic receiver type.\n
*/\n@Target(AnnotationTarget.FUNCTION,
AnnotationTarget.PROPERTY)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class
DynamicExtension\n\n/**\n * The value of this parameter should be a property reference expression (`this::foo`),
referencing a `lateinit` property,\n * the backing
field of which is accessible at the point where the corresponding argument is passed.\n
*/\n@Target(AnnotationTarget.VALUE_PARAMETER)\n@Retention(AnnotationRetention.BINARY)\n@SinceK
otlin("1.2")\ninternal annotation class AccessibleLateinitPropertyLiteral\n\n/**\n * Specifies that this declaration is
only completely supported since the specified version.\n *\n * The Kotlin compiler of an earlier version is going to
report a diagnostic on usages of this declaration.\n *\n * The diagnostic message can be specified with [message], or via
[errorCode] (takes less space, but might not be immediately clear\n * to the user). The diagnostic severity can be
specified with [level]: WARNING/ERROR mean that either a warning or an error\n * is going to be reported,
HIDDEN means that the declaration is going to be removed from resolution completely.\n *\n * [versionKind]
specifies which version should be compared with the [version] value, when compiling the usage of the annotated
declaration.\n *
Note that prior to 1.2, only [RequireKotlinVersionKind.LANGUAGE_VERSION] was supported, so the Kotlin
compiler before 1.2 is going to\n * treat any [RequireKotlin] as if it requires the language version. Since 1.2, the
Kotlin compiler supports\n * [RequireKotlinVersionKind.LANGUAGE_VERSION],
[RequireKotlinVersionKind.COMPILER_VERSION] and [RequireKotlinVersionKind.API_VERSION].\n * If the
actual value of [versionKind] is something different (e.g. a new version kind, added in future versions of Kotlin),\n *
Kotlin 1.2 is going to ignore this [RequireKotlin] altogether, where as Kotlin before 1.2 is going to treat this as a
requirement\n * on the language version.\n *\n * This annotation is erased at compile time; its arguments are stored
in a more compact form in the Kotlin metadata.\n */\n@Target(AnnotationTarget.CLASS,
AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY, AnnotationTarget.CONSTRUCTOR,
AnnotationTarget.TYPEALIAS)\n@Retention(AnnotationRetention.SOURCE)\n@Repeatable\n@SinceKotlin("1.
2")\ninternal
annotation class RequireKotlin(\n val version: String,\n val message: String = "",\n val level:
DeprecationLevel = DeprecationLevel.ERROR,\n val versionKind: RequireKotlinVersionKind =
RequireKotlinVersionKind.LANGUAGE_VERSION,\n val errorCode: Int = -1)\n\n/**\n * The kind of the
version that is required by [RequireKotlin].\n */\n@SinceKotlin("1.2")\ninternal enum class
RequireKotlinVersionKind {\n LANGUAGE_VERSION,\n COMPILER_VERSION,\n
API_VERSION,\n}\n\n/**\n * Specifies that this declaration is a part of special DSL, used for constructing
function's contract.\n */\n@Retention(AnnotationRetention.BINARY)\n@SinceKotlin("1.2")\ninternal annotation
class ContractsDsl\n\n/**\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin.properties\n\nimport kotlin.reflect.KProperty\n\n/**\n
* Standard property delegates.\n */\n\npublic object Delegates {\n /**\n * Returns a property delegate for a
read/write property with a non-`null` value that is initialized not during\n * object construction time but at a later
time. Trying to read the property before the initial value has been\n * assigned results in an exception.\n *
*\n * @sample samples.properties.Delegates.notNullDelegate\n */\n public fun <T : Any> notNull():
ReadWriteProperty<Any?, T> = NotNullVar()\n\n /**\n * Returns a property delegate for a read/write property
that calls a specified callback function when changed.\n * @param initialValue the initial value of the property.\n
*\n * @param onChange the callback which is called after the change of the property is made. The value of the

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property\n * has already been changed when this callback is invoked.\n * \n * @sample
samples.properties.Delegates.observableDelegate\n * \n public
inline fun <T> observable(initialValue: T, crossinline onChange: (property: KProperty<*>, oldValue: T, newValue:
T) -> Unit):\n     ReadWriteProperty<Any?, T> =\n     object : ObservableProperty<T>(initialValue) {\n
override fun afterChange(property: KProperty<*>, oldValue: T, newValue: T) = onChange(property, oldValue,
newValue)\n     }\n     /**\n     * Returns a property delegate for a read/write property that calls a specified
callback function when changed,\n     * allowing the callback to veto the modification.\n     * @param initialValue
the initial value of the property.\n     * @param onChange the callback which is called before a change to the
property value is attempted.\n     * The value of the property hasn't been changed yet, when this callback is
invoked.\n     * If the callback returns `true` the value of the property is being set to the new value,\n     * and if the
callback returns `false` the new value is discarded and the property remains
its old value.\n     * \n     * @sample samples.properties.Delegates.vetoableDelegate\n     * @sample
samples.properties.Delegates.throwVetoableDelegate\n     * \n     public inline fun <T> vetoable(initialValue: T,
crossinline onChange: (property: KProperty<*>, oldValue: T, newValue: T) -> Boolean):\n
ReadWriteProperty<Any?, T> =\n     object : ObservableProperty<T>(initialValue) {\n     override fun
beforeChange(property: KProperty<*>, oldValue: T, newValue: T): Boolean = onChange(property, oldValue,
newValue)\n     }\n     \n     \n     private class NotNullVar<T : Any>(): ReadWriteProperty<Any?, T> {\n     private var
value: T? = null\n     public override fun getValue(thisRef: Any?, property: KProperty<*>): T {\n     return value
?: throw IllegalStateException("\nProperty ${property.name} should be initialized before get.")\n     }\n     public
override fun setValue(thisRef: Any?, property: KProperty<*>, value: T) {\n     this.value = value\n
}\n     \n     \n     /**\n     * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n     * Use of this source code
is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n     * \n     \n     package
kotlin.properties\n     \n     import kotlin.reflect.KProperty\n     \n     /**\n     * Base interface that can be used for implementing
property delegates of read-only properties.\n     * \n     * This is provided only for convenience; you don't have to extend
this interface\n     * as long as your property delegate has methods with the same signatures.\n     * \n     * @param T the
type of object which owns the delegated property.\n     * @param V the type of the property value.\n     * \n     \n     public fun
interface ReadOnlyProperty<in T, out V> {\n     /**\n     * Returns the value of the property for the given object.\n
     * @param thisRef the object for which the value is requested.\n     * @param property the metadata for the
property.\n     * @return the property value.\n     * \n     * \n     public operator fun getValue(thisRef:
T, property: KProperty<*>): V\n     \n     /**\n     * Base interface that can be used for implementing property delegates of
read-write properties.\n     * \n     * This is provided only for convenience; you don't have to extend this interface\n
     * as long as your property delegate has methods with the same signatures.\n     * \n     * @param T the type of object which
owns the delegated property.\n     * @param V the type of the property value.\n     * \n     \n     public interface
ReadWriteProperty<in T, V> : ReadOnlyProperty<T, V> {\n     /**\n     * Returns the value of the property for the
given object.\n     * @param thisRef the object for which the value is requested.\n     * @param property the
metadata for the property.\n     * @return the property value.\n     * \n     * \n     public override operator fun
getValue(thisRef: T, property: KProperty<*>): V\n     \n     /**\n     * Sets the value of the property for the given
object.\n     * @param thisRef the object for which the value is requested.\n     * @param property the metadata for
the property.\n     * @param value the value to set.\n     * \n     * \n     public operator fun setValue(thisRef: T, property:
KProperty<*>, value: V)\n     \n     \n     /**\n     * Base interface that can be used for implementing property delegate
providers.\n     * \n     * This is provided only for convenience; you don't have to extend this interface\n     * as long as your
delegate provider has a method with the same signature.\n     * \n     * @param T the type of object which owns the
delegated property.\n     * @param D the type of property delegates this provider provides.\n     * \n     * \n     * \n     @SinceKotlin("1.4")\n     public fun interface PropertyDelegateProvider<in T, out D> {\n     /**\n     * Returns the
delegate of the property for the given object.\n     * \n     * This function can be used to extend the logic of creating
the object (e.g. perform validation checks)\n     * to which the property implementation is delegated.\n     * \n     *
     * @param thisRef the object for which property delegate is requested.\n     * @param property the metadata

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for the property.\n * @return the property delegate.\n */\n public operator fun provideDelegate(thisRef: T,
property: KProperty<*>): D{\n}\n"/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin.properties\n\nimport kotlin.reflect.KProperty\n\n/**\n * Implements the core logic of a property delegate for a read/write property that calls callback functions when
changed.\n * @param initialValue the initial value of the property.\n */\npublic abstract class
ObservableProperty<V>(initialValue: V) : ReadWriteProperty<Any?, V> {\n private var value = initialValue\n
/**\n * The callback which is called before a change to the property value is attempted.\n * The value of the
property hasn't been changed yet, when this callback is invoked.\n * If the callback returns `true` the value of
the property is being set to the new value,\n * and if the callback returns `false` the new value is discarded and
the property remains its old value.\n */\n protected open fun beforeChange(property: KProperty<*>, oldValue:
V, newValue: V): Boolean = true\n /**\n * The callback which is called after the change of the property is
made. The value of the property\n * has already been changed when this callback is invoked.\n */\n protected
open fun afterChange(property: KProperty<*>, oldValue: V, newValue: V): Unit {} \n\n public override fun
getValue(thisRef: Any?, property: KProperty<*>): V {\n return value\n }\n\n public override fun
setValue(thisRef: Any?, property: KProperty<*>, value: V) {\n val oldValue = this.value\n if
(!beforeChange(property, oldValue, value)) {\n return\n }\n this.value = value\n
afterChange(property, oldValue, value)\n }\n}"/*\n * Copyright 2010-2020 JetBrains s.r.o.
and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license
that can be found in the license/LICENSE.txt file.\n */\n\n@file:Suppress("PackageDirectoryMismatch")\npackage
kotlin\n\nimport kotlin.reflect.*\n\n/**\n * An extension operator that allows delegating a read-only property of type
[V]\n * to a property reference to a property of type [V] or its subtype.\n */\n * @receiver A property reference to a
read-only or mutable property of type [V] or its subtype.\n * The reference is without a receiver, i.e. it either
references a top-level property or\n * has the receiver bound to it.\n */\n * Example:\n */\n * class Login(val
username: String)\n * val defaultLogin = Login("Admin")\n * val defaultUsername by defaultLogin::username\n *
// equivalent to\n * val defaultUserName get() = defaultLogin.username\n * ```\n */\n\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline operator fun <V>
KProperty0<V>.getValue(thisRef:
Any?, property: KProperty<*>): V {\n return get()\n}\n\n/**\n * An extension operator that allows delegating a
mutable property of type [V]\n * to a property reference to a mutable property of the same type [V].\n */\n *
@receiver A property reference to a mutable property of type [V].\n * The reference is without a receiver, i.e. it
either references a top-level property or\n * has the receiver bound to it.\n */\n * Example:\n */\n * class
Login(val username: String, var incorrectAttemptCounter: Int = 0)\n * val defaultLogin = Login("Admin")\n * var
defaultLoginAttempts by defaultLogin::incorrectAttemptCounter\n * // equivalent to\n * var defaultLoginAttempts:
Int\n * get() = defaultLogin.incorrectAttemptCounter\n * set(value) { defaultLogin.incorrectAttemptCounter =
value }\n * ```\n */\n\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline operator fun <V>
KMutableProperty0<V>.setValue(thisRef: Any?, property: KProperty<*>, value: V) {\n set(value)\n}\n\n/**\n * An extension operator that allows delegating a read-only member or extension property of type [V]\n * to a
property reference to a member or extension property of type [V] or its subtype.\n */\n * @receiver A property
reference to a read-only or mutable property of type [V] or its subtype.\n * The reference has an unbound receiver of
type [T].\n */\n * Example:\n */\n * class Login(val username: String)\n * val Login.user by
Login::username\n * // equivalent to\n * val Login.user get() = this.username\n * ```\n */\n\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline operator fun <T, V> KProperty1<T,
V>.getValue(thisRef: T, property: KProperty<*>): V {\n return get(thisRef)\n}\n\n/**\n * An extension operator
that allows delegating a mutable member or extension property of type [V]\n * to a property reference to a member
or extension mutable property of the same type [V].\n */\n * @receiver A property reference to a read-only or
mutable property

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of type [V] or its subtype.\n * The reference has an unbound receiver of type [T].\n *\n * Example:\n *\n * ```\n * class Login(val username: String, var incorrectAttemptCounter: Int)\n * var Login.attempts by\n Login::incorrectAttemptCounter\n * // equivalent to\n * var Login.attempts: Int\n * get() =\n this.incorrectAttemptCounter\n * set(value) { this.incorrectAttemptCounter = value }\n * ```\n *\n * @SinceKotlin("1.4")\n * @kotlin.internal.InlineOnly\n * public inline operator fun <T, V> KMutableProperty1<T,\n V>.setValue(thisRef: T, property: KProperty<*>, value: V) {\n set(thisRef, value)\n }"/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n * \n * package kotlin.random\n * \n * import kotlin.math.nextDown\n * \n * /**\n * An abstract class that is implemented by random number generator algorithms.\n * \n * The companion object [Random.Default]\n * \n * is the default instance of [Random].\n * \n * To get a seeded instance of random generator use [Random] function.\n * \n * @sample samples.random.Randoms.defaultRandom\n * \n * @SinceKotlin("1.3")\n * public abstract class\n Random {\n * \n * /**\n * Gets the next random [bitCount] number of bits.\n * \n * Generates an `Int` whose\n lower [bitCount] bits are filled with random values and the remaining upper bits are zero.\n * \n * @param\n bitCount number of bits to generate, must be in range 0..32, otherwise the behavior is unspecified.\n * \n * @sample samples.random.Randoms.nextBits\n * \n * public abstract fun nextBits(bitCount: Int): Int\n * \n * /**\n * Gets the next random `Int` from the random number generator.\n * \n * Generates an `Int` random value\n uniformly distributed between `Int.MIN_VALUE` and `Int.MAX_VALUE` (inclusive).\n * \n * @sample\n samples.random.Randoms.nextInt\n * \n * public open fun nextInt(): Int = nextBits(32)\n * \n * /**\n * Gets the next random non-negative `Int` from the random number generator less than the specified\n [until] bound.\n * \n * Generates an `Int` random value uniformly distributed between `0` (inclusive) and the\n specified [until] bound (exclusive).\n * \n * @param until must be positive.\n * \n * @throws\n IllegalArgumentException if [until] is negative or zero.\n * \n * @sample\n samples.random.Randoms.nextIntFromUntil\n * \n * public open fun nextInt(until: Int): Int = nextInt(0, until)\n * \n * /**\n * Gets the next random `Int` from the random number generator in the specified range.\n * \n * Generates an `Int` random value uniformly distributed between the specified [from] (inclusive) and [until]\n (exclusive) bounds.\n * \n * @throws IllegalArgumentException if [from] is greater than or equal to [until].\n * \n * @sample samples.random.Randoms.nextIntFromUntil\n * \n * public open fun nextInt(from: Int, until:\n Int): Int {\n checkRangeBounds(from, until)\n val n = until - from\n if (n > 0 || n == Int.MIN_VALUE)\n {\n val rnd = if (n and -n == n) {\n val bitCount = fastLog2(n)\n nextBits(bitCount)\n }\n } else {\n val v: Int\n do {\n val bits = nextInt().ushr(1)\n v = bits % n\n } while (bits - v + (n - 1) < 0)\n v\n }\n return from + rnd\n } else {\n while\n (true) {\n val rnd = nextInt()\n if (rnd in from until until) return rnd\n }\n }\n }\n * \n * /**\n * Gets the next random `Long` from the random number generator.\n * \n * Generates a `Long` random\n value uniformly distributed between `Long.MIN_VALUE` and `Long.MAX_VALUE` (inclusive).\n * \n * @sample samples.random.Randoms.nextLong\n * \n * public open fun nextLong():\n Long = nextInt().toLong().shl(32) + nextInt()\n * \n * /**\n * Gets the next random non-negative `Long` from the\n random number generator less than the specified [until] bound.\n * \n * Generates a `Long` random value\n uniformly distributed between `0` (inclusive) and the specified [until] bound (exclusive).\n * \n * @param until\n must be positive.\n * \n * @throws IllegalArgumentException if [until] is negative or zero.\n * \n * @sample samples.random.Randoms.nextLongFromUntil\n * \n * public open fun nextLong(until: Long): Long =\n nextLong(0, until)\n * \n * /**\n * Gets the next random `Long` from the random number generator in the specified\n range.\n * \n * Generates a `Long` random value uniformly distributed between the specified [from] (inclusive)\n and [until] (exclusive) bounds.\n * \n * @throws IllegalArgumentException if [from] is greater than or equal to\n [until].\n * \n * @sample samples.random.Randoms.nextLongFromUntil\n * \n * public open fun nextLong(from: Long, until: Long): Long {\n checkRangeBounds(from, until)\n val n = until - from\n if (n > 0) {\n val rnd: Long\n if (n and -n == n) {\n val nLow =\n n.toInt()\n val nHigh = (n ushr 32).toInt()\n rnd = when {\n nLow != 0 -> {\n

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    val bitCount = fastLog2(nLow)\n                // toUInt().toLong()\n
nextBits(bitCount).toLong() and 0xFFFF_FFFF\n        }\n        nHigh == 1 ->\n                //
toUInt().toLong()\n        nextInt().toLong() and 0xFFFF_FFFF\n        else -> {\n                val
bitCount = fastLog2(nHigh)\n                nextBits(bitCount).toLong().shl(32) + (nextInt().toLong() and
0xFFFF_FFFF)\n        }\n        }\n        } else {\n                var v: Long\n
do {\n                val bits = nextLong().ushr(1)\n                v = bits % n\n                } while (bits - v + (n - 1)
< 0)\n                rnd = v\n                }\n                return from + rnd\n                } else {\n                while (true) {\n                val
rnd = nextLong()\n                if (rnd in from until until) return rnd\n                }\n                }\n                /**\n                * Gets the
next random [Boolean] value.\n                *\n                * @sample samples.random.Randoms.nextBoolean\n                */\n                public open
fun nextBoolean(): Boolean = nextBits(1) != 0\n                /**\n                * Gets the next random [Double] value uniformly
distributed between 0 (inclusive) and 1 (exclusive).\n                *\n                * @sample samples.random.Randoms.nextDouble\n                */\n                public open fun nextDouble(): Double = doubleFromParts(nextBits(26), nextBits(27))\n                /**\n                * Gets
the next random non-negative `Double` from the random number generator less than the specified [until] bound.\n                */\n
                *\n                * Generates a `Double` random value uniformly distributed between 0 (inclusive) and [until] (exclusive).\n                *\n
                * @throws IllegalArgumentException if [until] is negative or zero.\n                *\n                * @sample
samples.random.Randoms.nextDoubleFromUntil\n                */\n                public open fun nextDouble(until: Double): Double =
nextDouble(0.0, until)\n                /**\n                * Gets the next random `Double` from the random number generator in the
specified range.\n                *\n                * Generates a `Double` random value uniformly distributed between the specified [from]
(inclusive) and [until] (exclusive) bounds.\n                *\n                * [from] and [until] must be finite otherwise the behavior is
unspecified.\n                *\n                * @throws IllegalArgumentException if [from] is greater than or equal to [until].\n                */\n
                * @sample samples.random.Randoms.nextDoubleFromUntil\n                */\n                public open fun nextDouble(from: Double,
until: Double): Double {\n                checkRangeBounds(from, until)\n                val size = until - from\n
                val r = if (size.isInfinite() && from.isFinite() && until.isFinite()) {\n                val r1 = nextDouble() * (until / 2 -
from / 2)\n                from + r1 + r1\n                } else {\n                from + nextDouble() * size\n                }\n                return if (r >=
until) until.nextDown() else r\n                }\n                /**\n                * Gets the next random [Float] value uniformly distributed
between 0 (inclusive) and 1 (exclusive).\n                *\n                * @sample samples.random.Randoms.nextFloat\n                */\n                public open fun nextFloat(): Float = nextBits(24) / (1 shl 24).toFloat()\n                /**\n                * Fills a subrange of the
specified byte [array] starting from [fromIndex] inclusive and ending [toIndex] exclusive\n                * with random
bytes.\n                *\n                * @return [array] with the subrange filled with random bytes.\n                *\n                * @sample
samples.random.Randoms.nextBytes\n                */\n                public open fun nextBytes(array: ByteArray, fromIndex: Int = 0,
toIndex: Int = array.size): ByteArray {\n                require(fromIndex in
0..array.size && toIndex in 0..array.size) { \"fromIndex ($fromIndex) or toIndex ($toIndex) are out of range:
0..${array.size}.\" }\n                require(fromIndex <= toIndex) { \"fromIndex ($fromIndex) must be not greater than
toIndex ($toIndex).\" }\n                val steps = (toIndex - fromIndex) / 4\n                var position = fromIndex\n
repeat(steps) {\n                val v = nextInt()\n                array[position] = v.toByte()\n                array[position + 1] =
v.ushr(8).toByte()\n                array[position + 2] = v.ushr(16).toByte()\n                array[position + 3] =
v.ushr(24).toByte()\n                position += 4\n                }\n                val remainder = toIndex - position\n                val vr =
nextBits(remainder * 8)\n                for (i in 0 until remainder) {\n                array[position + i] = vr.ushr(i * 8).toByte()\n
                }\n                return array\n                }\n                /**\n                * Fills the specified byte [array] with random bytes and returns it.\n                */\n
                *\n                * @return [array] filled with random bytes.\n                */\n
                *\n                * @sample samples.random.Randoms.nextBytes\n                */\n                public open fun nextBytes(array: ByteArray):
ByteArray = nextBytes(array, 0, array.size)\n                /**\n                * Creates a byte array of the specified [size], filled with
random bytes.\n                *\n                * @sample samples.random.Randoms.nextBytes\n                */\n                public open fun
nextBytes(size: Int): ByteArray = nextBytes(ByteArray(size))\n                /**\n                * The default random number
generator.\n                *\n                * On JVM this generator is thread-safe, its methods can be invoked from multiple threads.\n                */\n
                *\n                * @sample samples.random.DefaultRandom\n                */\n                companion object Default : Random(),
Serializable {\n                private val defaultRandom: Random = defaultPlatformRandom()\n                private object

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Serialized : Serializable {
    private const val serialVersionUID = 0L
    private fun readResolve(): Any = Random
}
private fun writeReplace(): Any = Serialized
override fun nextBits(bitCount: Int): Int = defaultRandom.nextBits(bitCount)
override fun nextInt(): Int = defaultRandom.nextInt()
override fun nextInt(until: Int): Int = defaultRandom.nextInt(until)
override fun nextInt(from: Int, until: Int): Int = defaultRandom.nextInt(from, until)
override fun nextLong(): Long = defaultRandom.nextLong()
override fun nextLong(until: Long): Long = defaultRandom.nextLong(until)
override fun nextLong(from: Long, until: Long): Long = defaultRandom.nextLong(from, until)
override fun nextBoolean(): Boolean = defaultRandom.nextBoolean()
override fun nextDouble(): Double = defaultRandom.nextDouble()
override fun nextDouble(until: Double): Double = defaultRandom.nextDouble(until)
override fun nextDouble(from: Double, until: Double): Double = defaultRandom.nextDouble(from, until)
override fun nextFloat(): Float = defaultRandom.nextFloat()
override fun nextBytes(array: ByteArray): ByteArray = defaultRandom.nextBytes(array)
override fun nextBytes(size: Int): ByteArray = defaultRandom.nextBytes(size)
override fun nextBytes(array: ByteArray, fromIndex: Int, toIndex: Int): ByteArray = defaultRandom.nextBytes(array, fromIndex, toIndex)
}

Returns a repeatable random number generator seeded with the given [seed] `Int` value.
Two generators with the same seed produce the same sequence of values within the same version of Kotlin runtime.
Note: Future versions of Kotlin may change the algorithm of this seeded number generator so that it will return a sequence of values different from the current one for a given seed.
On JVM the returned generator is NOT thread-safe. Do not invoke it from multiple threads without proper synchronization.
@sample samples.random.Randoms.seededRandom
@SinceKotlin("1.3")
public fun Random(seed: Int): Random = XorWowRandom(seed, seed.shr(31))
Returns a repeatable random number generator seeded with the given [seed] `Long` value.
Two generators with the same seed produce the same sequence of values within the same version of Kotlin runtime.
Note: Future versions of Kotlin may change the algorithm of this seeded number generator so that it will return a sequence of values different from the current one for a given seed.
On JVM the returned generator is NOT thread-safe. Do not invoke it from multiple threads without proper synchronization.
@sample samples.random.Randoms.seededRandom
@SinceKotlin("1.3")
public fun Random(seed: Long): Random = XorWowRandom(seed.toInt(), seed.shr(32).toInt())
Gets the next random `Int` from the random number generator in the specified [range].
Generates an `Int` random value uniformly distributed in the specified [range]: from `range.start` inclusive to `range.endInclusive` inclusive.
@throws IllegalArgumentException if [range] is empty.
@SinceKotlin("1.3")
public fun Random.nextInt(range: IntRange): Int = when {
    range.isEmpty() -> throw IllegalArgumentException("Cannot get random in empty range: $range")
    range.last < Int.MAX_VALUE -> nextInt(range.first, range.last + 1)
    range.first > Int.MIN_VALUE -> nextInt(range.first - 1, range.last) + 1
    else -> nextInt()
}
Gets the next random `Long` from the random number generator in the specified [range].
Generates a `Long` random value uniformly distributed in the specified [range]: from `range.start` inclusive to `range.endInclusive` inclusive.
@throws IllegalArgumentException if [range] is empty.
@SinceKotlin("1.3")
public fun Random.nextLong(range: LongRange): Long = when {
    range.isEmpty() -> throw IllegalArgumentException("Cannot get random in empty range: $range")
    range.last < Long.MAX_VALUE -> nextLong(range.first, range.last + 1)
    range.first > Long.MIN_VALUE -> nextLong(range.first - 1, range.last) + 1
    else -> nextLong()
}
internal expect fun defaultPlatformRandom(): Random
internal expect fun doubleFromParts(hi26: Int, low27: Int): Double
internal fun fastLog2(value: Int): Int = 31 - value.countLeadingZeroBits()
Takes upper [bitCount] bits (0..32) from this number.
internal fun Int.takeUpperBits(bitCount: Int): Int = this.ushr(32 - bitCount) and (-bitCount).shr(31)
internal fun checkRangeBounds(from: Int, until: Int) = require(until > from) { boundsErrorMessage(from, until) }
internal fun checkRangeBounds(from: Long, until: Long) = require(until > from) { boundsErrorMessage(from, until) }

```

```

fun checkRangeBounds(from: Double, until: Double) = require(until > from) { boundsErrorMessage(from, until)
}
internal fun boundsErrorMessage(from: Any, until: Any) = "Random range is empty: [$from,
$until)."
/*
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 * Programming Language contributors.
 * Use of this source code is governed by the Apache 2.0 license that can be
 * found in the license/LICENSE.txt file.
 */
package kotlin.random
/**
 * Gets the next random [UInt]
 * from the random number generator.
 * Generates a [UInt] random value uniformly distributed between
 * [UInt.MIN_VALUE] and [UInt.MAX_VALUE] (inclusive).
 */
@SinceKotlin("1.5")
@WasExperimental(ExperimentalUnsignedTypes::class)
public fun
Random.nextUInt(): UInt = nextInt().toUInt()
/**
 * Gets the next random [UInt] from the random number
 * generator less than the specified [until] bound.
 * Generates a [UInt] random value uniformly distributed
 * between `0` (inclusive) and the specified [until] bound (exclusive).
 * @throws IllegalArgumentException if
 * [until] is zero.
 */
@SinceKotlin("1.5")
@WasExperimental(ExperimentalUnsignedTypes::class)
public fun
Random.nextUInt(until: UInt): UInt = nextUInt(0u, until)
/**
 * Gets the next random
 * [UInt] from the random number generator in the specified range.
 * Generates a [UInt] random value
 * uniformly distributed between the specified [from] (inclusive) and [until] (exclusive) bounds.
 * @throws
 * IllegalArgumentException if [from] is greater than or equal to [until].
 */
@SinceKotlin("1.5")
@WasExperimental(ExperimentalUnsignedTypes::class)
public fun
Random.nextUInt(from: UInt, until: UInt): UInt {
    checkUIntRangeBounds(from, until)
    val signedFrom =
        from.toInt() xor Int.MIN_VALUE
    val signedUntil =
        until.toInt() xor Int.MIN_VALUE
    val signedResult =
        nextInt(signedFrom, signedUntil) xor Int.MIN_VALUE
    return signedResult.toUInt()
}
/**
 * Gets the next
 * random [UInt] from the random number generator in the specified [range].
 * Generates a [UInt] random value
 * uniformly distributed in the specified [range]:
 * from `range.start` inclusive to `range.endInclusive` inclusive.
 * @throws
 * IllegalArgumentException if [range] is
 * empty.
 */
@SinceKotlin("1.5")
@WasExperimental(ExperimentalUnsignedTypes::class)
public fun
Random.nextUInt(range: UIntRange): UInt = when {
    range.isEmpty() -> throw
        IllegalArgumentException("Cannot get random in empty range: $range")
    range.last < UInt.MAX_VALUE ->
        nextUInt(range.first, range.last + 1u)
    range.first > UInt.MIN_VALUE ->
        nextUInt(range.first - 1u, range.last) +
        1u
    else -> nextUInt()
}
/**
 * Gets the next random [ULong] from the random number generator.
 * Generates a [ULong] random value uniformly distributed between [ULong.MIN_VALUE] and
 * [ULong.MAX_VALUE] (inclusive).
 */
@SinceKotlin("1.5")
@WasExperimental(ExperimentalUnsignedTypes::class)
public fun
Random.nextULong(): ULong = nextLong().toULong()
/**
 * Gets the next random [ULong] from the random
 * number generator less than the specified [until] bound.
 * Generates a [ULong] random value uniformly
 * distributed between `0` (inclusive) and the specified [until] bound
 * (exclusive).
 * @throws
 * IllegalArgumentException if [until] is zero.
 */
@SinceKotlin("1.5")
@WasExperimental(ExperimentalUnsignedTypes::class)
public fun
Random.nextULong(until: ULong): ULong = nextULong(0uL, until)
/**
 * Gets the next random [ULong] from
 * the random number generator in the specified range.
 * Generates a [ULong] random value uniformly
 * distributed between the specified [from] (inclusive) and [until] (exclusive) bounds.
 * @throws
 * IllegalArgumentException if [from] is greater than or equal to [until].
 */
@SinceKotlin("1.5")
@WasExperimental(ExperimentalUnsignedTypes::class)
public fun
Random.nextULong(from: ULong, until: ULong): ULong {
    checkULongRangeBounds(from, until)
    val signedFrom =
        from.toLong() xor Long.MIN_VALUE
    val signedUntil =
        until.toLong() xor
        Long.MIN_VALUE
    val signedResult =
        nextLong(signedFrom, signedUntil) xor Long.MIN_VALUE
    return signedResult.toULong()
}
/**
 * Gets the next random
 * [ULong] from the random number generator in the specified [range].
 * Generates a [ULong] random value
 * uniformly distributed in the specified [range]:
 * from `range.start` inclusive to `range.endInclusive` inclusive.
 * @throws
 * IllegalArgumentException if [range] is empty.
 */

```

```

*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
Random.nextULong(range: ULongRange): ULong = when {\n    range.isEmpty() -> throw
IllegalArgumentExcepTion("Cannot get random in empty range: $range")\n    range.last < ULong.MAX_VALUE -
> nextULong(range.first, range.last + 1u)\n    range.first > ULong.MIN_VALUE -> nextULong(range.first - 1u,
range.last) + 1u\n    else -> nextULong()\n}\n\n/**\n * Fills the specified unsigned byte [array] with random bytes
and returns it.\n *\n * @return [array] filled with random bytes.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun Random.nextUBytes(array: UByteArray):
UByteArray {\n    nextBytes(array.asByteArray())\n
    return array\n}\n\n/**\n * Creates an unsigned byte array of the specified [size], filled with random bytes.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun Random.nextUBytes(size: Int): UByteArray
= nextBytes(size).asUByteArray()\n\n/**\n * Fills a subrange of the specified `UByte` [array] starting from
[fromIndex] inclusive and ending [toIndex] exclusive with random UBytes.\n *\n * @return [array] with the
subrange filled with random bytes.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
Random.nextUBytes(array: UByteArray, fromIndex: Int = 0, toIndex: Int = array.size): UByteArray {\n
    nextBytes(array.asByteArray(), fromIndex, toIndex)\n    return array\n}\n\ninternal fun
checkUIntRangeBounds(from: UInt, until: UInt) = require(until > from) { boundsErrorMessage(from, until)
}\n\ninternal fun checkULongRangeBounds(from: ULong, until: ULong) = require(until > from) {
    boundsErrorMessage(from, until) }\n", "/*\n * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\n@npackage kotlin.random\n\n/**\n * Random number generator, using Marsaglia's "xorwow" algorithm\n
*\n * Cycles after 2^192 - 2^32 repetitions.\n
*\n * For more details, see Marsaglia, George (July 2003). "Xorshift RNGs". Journal of Statistical Software. 8
(14). doi:10.18637/jss.v008.i14\n
*\n * Available at https://www.jstatsoft.org/v08/i14/paper\n
*\n@ninternal class
XorWowRandom internal constructor(\n    private var x: Int,\n    private var y: Int,\n    private var z: Int,\n    private
var w: Int,\n    private var v: Int,\n    private var addend: Int\n) : Random(), Serializable {\n    internal
constructor(seed1: Int, seed2: Int) :n        this(seed1, seed2, 0, 0, seed1.inv(), (seed1 shl 10) xor (seed2 ushr
4))\n    init {\n        require((x or y or z or w or v) != 0) { "Initial
state must have at least one non-zero element." }\n        // some trivial seeds can produce several values with
zeroes in upper bits, so we discard first 64\n        repeat(64) { nextInt() }\n    }\n    override fun nextInt(): Int {\n
// Equivalent to the xorwow algorithm\n        // From Marsaglia, G. 2003. Xorshift RNGs. J. Statis. Soft. 8, 14, p.
5\n        var t = x\n        t = t xor (t ushr 2)\n        x = y\n        y = z\n        z = w\n        val v0 = v\n        w = v0\n        t
= (t xor (t shl 1)) xor v0 xor (v0 shl 4)\n        v = t\n        addend += 362437\n        return t + addend\n    }\n
    override fun nextBits(bitCount: Int): Int =\n        nextInt().takeUpperBits(bitCount)\n\n    private companion object
{\n        private const val serialVersionUID: Long = 0L\n    }\n}\n", "/*\n * Copyright 2010-2018 JetBrains s.r.o. and
Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that
can be found in
the license/LICENSE.txt file.\n
*\n@nfile:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("RangesKt")\n\npackage
kotlin.ranges\n\n/**\n * Represents a range of [Comparable] values.\n
*\n@nprivate open class ComparableRange<T> :
Comparable<T>>(\n    override val start: T,\n    override val endInclusive: T\n) : ClosedRange<T> {\n    override
fun equals(other: Any?): Boolean {\n        return other is ComparableRange<*> && (isEmpty() && other.isEmpty())
||\n            start == other.start && endInclusive == other.endInclusive\n    }\n    override fun hashCode(): Int
{\n        return if (isEmpty()) -1 else 31 * start.hashCode() + endInclusive.hashCode()\n    }\n    override fun
toString(): String = "$start..$endInclusive"\n}\n\n/**\n * Creates a range from this [Comparable] value to the
specified [that] value.\n *\n * This value needs to be smaller than or equal to [that] value, otherwise the returned
range will be empty.\n *\n * @sample samples.ranges.Ranges.rangeFromComparable\n
*\n@npublic operator fun <T : Comparable<T>> T.rangeTo(that: T): ClosedRange<T> = ComparableRange(this,
that)\n\n\n/**\n * Represents a range of floating point numbers.\n * Extends [ClosedRange] interface providing

```

custom operation [lessThanOrEquals] for comparing values of range domain type.

\* This interface is implemented by floating point ranges returned by [Float.rangeTo] and [Double.rangeTo] operators to achieve IEEE-754 comparison order instead of total order of floating point numbers.

```

@SinceKotlin("1.1")
public interface ClosedFloatingPointRange<T : Comparable<T>> : ClosedRange<T> {
    override fun contains(value: T): Boolean = lessThanOrEquals(start, value) && lessThanOrEquals(value, endInclusive)
    override fun isEmpty(): Boolean = !lessThanOrEquals(start, endInclusive)
}

```

/\*\* Compares two values of range domain type and returns true if first is less than or equal to second.

```

fun lessThanOrEquals(a: T, b: T): Boolean

```

\*/

\* A closed range of values of type `Double`.

\* Numbers are compared with the ends of this range according to IEEE-754.

```

private class ClosedDoubleRange(
    start: Double,
    endInclusive: Double
) : ClosedFloatingPointRange<Double> {
    private val _start = start
    private val _endInclusive = endInclusive
    override val start: Double get() = _start
    override val endInclusive: Double get() = _endInclusive
    override fun lessThanOrEquals(a: Double, b: Double): Boolean = a <= b
    override fun contains(value: Double): Boolean = value >= _start && value <= _endInclusive
    override fun isEmpty(): Boolean = !(_start <= _endInclusive)
    override fun equals(other: Any?): Boolean {
        return other is ClosedDoubleRange && (isEmpty() && other.isEmpty() ||
            _start == other._start && _endInclusive == other._endInclusive)
    }
    override fun hashCode(): Int {
        return if (isEmpty()) -1 else 31 * _start.hashCode() +
            _endInclusive.hashCode()
    }
    override fun toString(): String = "$_start..$_endInclusive"
}

```

Creates a range from this [Double] value to the specified [that] value.

\* Numbers are compared with the ends of this range according to IEEE-754.

```

@sample samples.ranges.Ranges.rangeFromDouble

```

\*/

```

@SinceKotlin("1.1")
public operator fun Double.rangeTo(that: Double): ClosedFloatingPointRange<Double> =
    ClosedDoubleRange(this, that)

```

/\*\* A closed range of values of type `Float`.

\* Numbers are compared with the ends of this range according to IEEE-754.

```

private class ClosedFloatRange(
    start: Float,
    endInclusive: Float
) : ClosedFloatingPointRange<Float> {
    private val _start = start
    private val _endInclusive = endInclusive
    override val start: Float get() = _start
    override val endInclusive: Float get() = _endInclusive
    override fun lessThanOrEquals(a: Float, b: Float): Boolean = a <= b
    override fun contains(value: Float): Boolean = value >= _start && value <= _endInclusive
    override fun isEmpty(): Boolean = !(_start <= _endInclusive)
    override fun equals(other: Any?): Boolean {
        return other is ClosedFloatRange && (isEmpty() && other.isEmpty() ||
            _start == other._start && _endInclusive == other._endInclusive)
    }
    override fun hashCode(): Int {
        return if (isEmpty()) -1 else 31 *
            _start.hashCode() + _endInclusive.hashCode()
    }
    override fun toString(): String =
        "$_start..$_endInclusive"
}

```

Creates a range from this [Float] value to the specified [that] value.

\* Numbers are compared with the ends of this range according to IEEE-754.

```

@sample
samples.ranges.Ranges.rangeFromFloat

```

\*/

```

@SinceKotlin("1.1")
public operator fun Float.rangeTo(that: Float): ClosedFloatingPointRange<Float> =
    ClosedFloatRange(this, that)

```

\* Returns `true` if this iterable range contains the specified [element].

\* Always returns `false` if the [element] is `null`.

```

@SinceKotlin("1.3")
@kotlin.internal.InlineOnly
public inline fun <T, R> R.contains(element: T?): Boolean
    where T : Any, R : Iterable<T>, R : ClosedRange<T> =
    element != null && contains(element)

```

internal fun checkStepIsPositive(isPositive: Boolean, step: Number) {
 if (!isPositive)
 throw IllegalArgumentException("Step must be positive, was: \$step.")
}

\*/

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```

@file:kotlin.jvm.JvmName("KClasses")
@file:Suppress("UNCHECKED_CAST")
package kotlin.reflect
import kotlin.internal.LowPriorityInOverloadResolution

```

/\*\* Casts the given [value] to the class represented by this [KClass] object.

\* Throws an exception if the value is `null` or if it is not an instance of this

```

class.\n *\n * This is an experimental function that behaves as a similar function from kotlin.reflect.full on JVM.\n
*\n * @see [KClass.isInstance]\n * @see [KClass.safeCast]\n
*\n @SinceKotlin("1.4")\n @WasExperimental(ExperimentalStdlibApi::class)\n @LowPriorityInOverloadResoluti
on\n fun <T : Any> KClass<T>.cast(value: Any?): T {\n     if (!isInstance(value)) throw ClassCastException("Value
cannot be cast to $qualifiedOrSimpleName")\n     return value as T\n }\n\n // TODO: replace with qualifiedName
when it is fully supported in K/JS\n internal expect val KClass<*>.qualifiedOrSimpleName: String?\n\n /**\n * Casts
the given [value] to the class represented by this [KClass] object.\n * Returns `null` if the value is `null` or if it is not
an instance of this class.\n *\n * This is an experimental function that behaves as a similar function from
kotlin.reflect.full on JVM.\n *\n * @see [KClass.isInstance]\n * @see [KClass.cast]\n
*\n @SinceKotlin("1.4")\n @WasExperimental(ExperimentalStdlibApi::class)\n @LowPriorityInOverloadResoluti
on\n fun
<T : Any> KClass<T>.safeCast(value: Any?): T? {\n     return if (isInstance(value)) value as T else null\n }\n\n
/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code
is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n package
kotlin.reflect\n\n import kotlin.jvm.JvmField\n\n import kotlin.jvm.JvmStatic\n\n\n /**\n * Represents a type
projection. Type projection is usually the argument to another type in a type usage.\n * For example, in the type
`Array<out Number>`, `out Number` is the covariant projection of the type represented by the class `Number`.\n *\n
* Type projection is either the star projection, or an entity consisting of a specific type plus optional variance.\n *\n
* See the [Kotlin language documentation](https://kotlinlang.org/docs/reference/generics.html#type-projections)\n *
for more information.\n */\n\n @SinceKotlin("1.1")\n public
data class KTypeProjection constructor(\n     /**\n     * The use-site variance specified in the projection, or `null` if
this is a star projection.\n     */\n     public val variance: KVariance?,\n     /**\n     * The type specified in the
projection, or `null` if this is a star projection.\n     */\n     public val type: KType?\n ) {\n     init {\n
require((variance == null) == (type == null)) {\n         if (variance == null)\n             "Star projection must have
no type specified." \n         else\n             "The projection variance $variance requires type to be specified." \n
}\n     }\n     override fun toString(): String = when (variance) {\n         null -> "*" \n         KVariance.INVARIANT
-> type.toString()\n         KVariance.IN -> "in $type" \n         KVariance.OUT -> "out $type" \n     }\n     public
companion object {\n         // provided for compiler access\n         @JvmField\n         @PublishedApi\n         internal
val
star: KTypeProjection = KTypeProjection(null, null)\n\n         /**\n         * Star projection, denoted by the `*`
character.\n         * For example, in the type `KClass<*>`, `*` is the star projection.\n         * See the [Kotlin
language documentation](https://kotlinlang.org/docs/reference/generics.html#star-projections)\n         * for more
information.\n         */\n         public val STAR: KTypeProjection get() = star\n\n         /**\n         * Creates an
invariant projection of a given type. Invariant projection is just the type itself,\n         * without any use-site variance
modifiers applied to it.\n         * For example, in the type `Set<String>`, `String` is an invariant projection of the type
represented by the class `String`.\n         */\n         @JvmStatic\n         public fun invariant(type: KType):
KTypeProjection =\n             KTypeProjection(KVariance.INVARIANT, type)\n\n         /**\n         * Creates a
contravariant projection of a given type, denoted by the `in`
modifier applied to a type.\n         * For example, in the type `MutableList<in Number>`, `in Number` is a
contravariant projection of the type of class `Number`.\n         */\n         @JvmStatic\n         public fun
contravariant(type: KType): KTypeProjection =\n             KTypeProjection(KVariance.IN, type)\n\n         /**\n         *
Creates a covariant projection of a given type, denoted by the `out` modifier applied to a type.\n         * For example,
in the type `Array<out Number>`, `out Number` is a covariant projection of the type of class `Number`.\n         */\n
         @JvmStatic\n         public fun covariant(type: KType): KTypeProjection =\n             KTypeProjection(KVariance.OUT, type)\n     }\n }\n\n /**\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n */\n\n package kotlin.reflect\n\n /**\n * Represents variance applied

```

to a type parameter on the declaration site (\*declaration-site variance\*),\n \* or to a type in a projection (\*use-site variance\*). \n \* See the [Kotlin language documentation](https://kotlinlang.org/docs/reference/generics.html#variance)\n \* for more information. \n \* @see [KTypeParameter.variance]\n \* @see [KTypeProjection]\n \* ^\n@SinceKotlin("1.1")\nenum class KVariance {\n /\*\n \* The affected type parameter or type is \*invariant\*, which means it has no variance applied to it.\n \*\n INVARIANT,\n /\*\n \* The affected type parameter or type is \*contravariant\*. Denoted by the `in` modifier in the source code.\n \*\n IN,\n /\*\n \* The affected type parameter or type is \*covariant\*. Denoted by the `out` modifier in the source code.\n \*\n OUT,\n }",/\*\n \* Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt

file.\n \*\n\npackage kotlin.reflect\n/\*\n \* Returns a runtime representation of the given reified type [T] as an instance of [KType].\n \*\n \* Note that on JVM, the created type has no annotations ([KType.annotations] returns an empty list)\n \* even if the type in the source code is annotated. Support for type annotations might be added in a future version.\n \*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <reified T> typeOf(): KType =\n throw UnsupportedOperationException("This function is implemented as an intrinsic on all supported platforms.")\n",/\*\n \* Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n

^\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("StringsKt")\n\npackage

kotlin.text\n/\*\n \* An object to which char sequences and values can be

appended.\n \*\n\nexpect interface Appendable {\n /\*\n \* Appends the specified character [value] to this Appendable and returns this instance.\n \*\n \* @param value the character to append.\n \*\n fun append(value: Char): Appendable\n /\*\n \* Appends the specified character sequence [value] to this Appendable and returns this instance.\n \*\n \* @param value the character sequence to append. If [value] is `null`, then the four characters `\\null` are appended to this Appendable.\n \*\n fun append(value: CharSequence?): Appendable\n /\*\n \* Appends a subsequence of the specified character sequence [value] to this Appendable and returns this instance.\n \*\n \* @param value the character sequence from which a subsequence is appended. If [value] is `null`,\n \* then characters are appended as if [value] contained the four characters `\\null`.\n \* @param startIndex the beginning (inclusive) of the subsequence to append.\n

\* @param endIndex the end (exclusive) of the subsequence to append.\n \*\n \* @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n \*\n fun append(value: CharSequence?, startIndex: Int, endIndex: Int): Appendable}\n\n/\*\n \* Appends a subsequence of the specified character sequence [value] to this Appendable and returns this instance.\n \*\n \* @param value the character sequence from which a subsequence is appended.\n \* @param startIndex the beginning (inclusive) of the subsequence to append.\n \* @param endIndex the end (exclusive) of the subsequence to append.\n \*\n \* @throws

IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n

^\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic

fun <T : Appendable> T.appendRange(value: CharSequence, startIndex: Int, endIndex: Int): T {\n @Suppress("UNCHECKED\_CAST")\n return append(value, startIndex, endIndex) as T}\n\n/\*\n \* Appends all arguments to the given [Appendable].\n \*\n\npublic fun <T : Appendable> T.append(vararg value: CharSequence?): T {\n for (item in value)\n append(item)\n return this}\n\n/\*\n \* Appends a line feed character (`\\n`) to this Appendable. ^\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun Appendable.appendLine(): Appendable = append("\\n")\n\n/\*\n \* Appends value to the given Appendable and a line feed character (`\\n`) after it. ^\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun Appendable.appendLine(value: CharSequence?): Appendable = append(value).appendLine()\n\n/\*\n \* Appends value to the given Appendable and a line feed character (`\\n`) after it.

```

*\/n@SinceKotlin("1.4")n@kotlin.internal.InlineOnlynpublic inline fun Appendable.appendLine(value:
Char): Appendable = append(value).appendLine()\n\ninternal fun <T> Appendable.appendElement(element: T,
transform: ((T) -> CharSequence)?) {n  when {n    transform != null -> append(transform(element))n
element is CharSequence? -> append(element)n    element is Char -> append(element)n    else ->
append(element.toString())n  }n}\n"/n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming
Language contributors.n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.n

*\/n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("StringsKt")\n\npackage
kotlin.text\n/n/**n * Trims leading whitespace characters followed by [marginPrefix] from every line of a source
string and removes\n * the first and the last lines if they are blank (notice difference blank vs empty).\n *n * Doesn't
affect a line if it doesn't contain [marginPrefix] except the first and
the last blank lines.\n *n * Doesn't preserve the original line endings.\n *n * @param marginPrefix non-blank
string, which is used as a margin delimiter. Default is `|` (pipe character).\n *n * @sample
samples.text.Strings.trimMargin\n * @see trimIndent\n * @see kotlin.text.isWhitespace\n *\/npublic fun
String.trimMargin(marginPrefix: String = "|"): String =\n  replaceIndentByMargin("|", marginPrefix)\n/n/**n *
Detects indent by [marginPrefix] as it does [trimMargin] and replace it with [newIndent].\n *n * @param
marginPrefix non-blank string, which is used as a margin delimiter. Default is `|` (pipe character).\n *\/npublic fun
String.replaceIndentByMargin(newIndent: String = "|", marginPrefix: String = "|"): String {n
require(marginPrefix.isNotBlank()) { "marginPrefix must be non-blank string." }n  val lines = lines()\n  return
lines.reindent(length + newIndent.length * lines.size, getIndentFunction(newIndent), { line ->\n    val
firstNonWhitespaceIndex
= line.indexOfFirst { !it.isWhitespace() }\n    when {n      firstNonWhitespaceIndex == -1 -> null\n
line.startsWith(marginPrefix, firstNonWhitespaceIndex) -> line.substring(firstNonWhitespaceIndex +
marginPrefix.length)\n      else -> null\n    }\n  })\n/n/**n * Detects a common minimal indent of all the
input lines, removes it from every line and also removes the first and the last\n * lines if they are blank (notice
difference blank vs empty).\n *n * Note that blank lines do not affect the detected indent level.\n *n * In case if
there are non-blank lines with no leading whitespace characters (no indent at all) then the\n * common indent is 0,
and therefore this function doesn't change the indentation.\n *n * Doesn't preserve the original line endings.\n *n *
@sample samples.text.Strings.trimIndent\n * @see trimMargin\n * @see kotlin.text.isBlank\n *\/npublic fun
String.trimIndent(): String = replaceIndent("\n")\n/n/**n * Detects a common
minimal indent like it does [trimIndent] and replaces it with the specified [newIndent].\n *\/npublic fun
String.replaceIndent(newIndent: String = "\n"): String {n  val lines = lines()\n  val minCommonIndent = lines\n
.filter(String::isNotBlank)\n  .map(String::indentWidth)\n  .minOrNull() ?: 0\n  return
lines.reindent(length + newIndent.length * lines.size, getIndentFunction(newIndent), { line ->
line.drop(minCommonIndent) })\n/n/**n * Prepends [indent] to every line of the original string.\n *n * Doesn't
preserve the original line endings.\n *\/npublic fun String.prependIndent(indent: String = "  "): String =\n
lineSequence()\n  .map {n    when {n      it.isBlank() -> {n        when {n
it.length < indent.length -> indent\n          else -> it\n        }\n      }n      else -> indent +
it\n    }\n  }.joinToString("\n")\n/private
fun String.indentWidth(): Int = indexOfFirst { !it.isWhitespace() }.let { if (it == -1) length else it }\n/private fun
getIndentFunction(indent: String) = when {n  indent.isEmpty() -> { line: String -> line }\n  else -> { line: String -
> indent + line }\n}\n/private inline fun List<String>.reindent(\n  resultSizeEstimate: Int,\n  indentAddFunction:
(String) -> String,\n  indentCutFunction: (String) -> String?): String {n  val lastIndex = lastIndex\n  return
mapIndexedNotNull { index, value ->\n    if ((index == 0 || index == lastIndex) && value.isBlank())\n    null\n    else\n      indentCutFunction(value)?.let(indentAddFunction)?: value\n  }\n
.joinTo(StringBuilder(resultSizeEstimate), "\n")\n  .toString()\n}\n"/n * Copyright 2010-2018 JetBrains
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license that can be found in the license/LICENSE.txt

```

```

file.\n *\n\npackage kotlin.text\n\n/**\n * Defines names for Unicode symbols used in proper Typography.\n *\npublic object Typography {\n /** The character &#x22; \u2013 quotation mark *\n public const val quote: Char = "\u0022"\n /** The character &#x24; \u2013 dollar sign *\n public const val dollar: Char = "\u0024"\n /** The character &#x26; \u2013 ampersand *\n public const val amp: Char = "\u0026"\n /** The character &#x3C; \u2013 less-than sign *\n public const val less: Char = "\u003C"\n /** The character &#x3E; \u2013 greater-than sign *\n public const val greater: Char = "\u003E"\n /** The non-breaking space character *\n public const val nbsp: Char = "\u00A0"\n /** The character &#xD7; *\n public const val times: Char = "\u00D7"\n /** The character &#xA2; *\n public const val cent: Char = "\u00A2"\n /** The character &#xA3; *\n public const val pound: Char = "\u00A3"\n /** The character &#xA7; *\n public const val section: Char = "\u00A7"\n /** The character &#xA9; *\n public const val copyright: Char = "\u00A9"\n /** The character &#xAB; *\n @SinceKotlin("1.6")\n public const val leftGuillemet: Char = "\u00AB"\n /** The character &#xBB; *\n @SinceKotlin("1.6")\n public const val rightGuillemet: Char = "\u00BB"\n /** The character &#xAE; *\n public const val registered: Char = "\u00AE"\n /** The character &#xB0; *\n public const val degree: Char = "\u00B0"\n /** The character &#xB1; *\n public const val plusMinus: Char = "\u00B1"\n /** The character &#xB6; *\n public const val paragraph: Char = "\u00B6"\n /** The character &#xB7; *\n public const val middleDot: Char = "\u00B7"\n /** The character &#xBD; *\n public const val half: Char = "\u00BD"\n /** The character &#x2013; *\n public const val ndash: Char = "\u2013"\n /** The character &#x2014; *\n public const val mdash: Char = "\u2014"\n /** The character &#x2018; *\n public const val leftSingleQuote: Char = "\u2018"\n /** The character &#x2019; *\n public const val rightSingleQuote: Char = "\u2019"\n /** The character &#x201A; *\n public const val lowSingleQuote: Char = "\u201A"\n /** The character &#x201C; *\n public const val leftDoubleQuote: Char = "\u201C"\n /** The character &#x201D; *\n public const val rightDoubleQuote: Char = "\u201D"\n /** The character &#x201E; *\n public const val lowDoubleQuote: Char = "\u201E"\n /** The character &#x2020; *\n public const val dagger: Char = "\u2020"\n /** The character &#x2021; *\n public const val doubleDagger: Char = "\u2021"\n /** The character &#x2022; *\n public const val bullet: Char = "\u2022"\n /** The character &#x2026; *\n public const val ellipsis: Char = "\u2026"\n /** The character &#x2032; *\n public const val prime: Char = "\u2032"\n /** The character &#x2033; *\n public const val doublePrime: Char = "\u2033"\n /** The character &#x20AC; *\n public const val euro: Char = "\u20AC"\n /** The character &#x2122; *\n public const val tm: Char = "\u2122"\n /** The character &#x2248; *\n public const val almostEqual: Char = "\u2248"\n /** The character &#x2260; *\n public const val notEqual: Char = "\u2260"\n /** The character &#x2264; *\n public const val lessOrEqual: Char = "\u2264"\n /** The character &#x2265; *\n public const val greaterOrEqual: Char = "\u2265"\n\n /** The character &#xAB; *\n @Deprecated("This constant has a typo in the name. Use leftGuillemet instead.")\n ReplaceWith("Typography.leftGuillemet()")\n @DeprecatedSinceKotlin("1.6")\n public const val leftGuillemete: Char = "\u00AB"\n\n /** The character &#xBB; *\n @Deprecated("This constant has a typo in the name. Use rightGuillemet instead.")\n ReplaceWith("Typography.rightGuillemet()")\n\n @DeprecatedSinceKotlin("1.6")\n public const val rightGuillemete: Char = "\u00BB"\n\n}

/**\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n *\npackage kotlin.text\n\n/**\n * Represents a collection of captured groups in a single match of a regular expression.\n * This collection has size of `groupCount + 1` where `groupCount` is the count of groups in the regular expression.\n * Groups are indexed from 1 to `groupCount` and group with the index 0 corresponds to the entire match.\n * An element of the collection at the particular index can be `null` if the corresponding group in the regular expression is optional and there was no match captured by that group.\n\npublic interface MatchGroupCollection : Collection<MatchGroup?> {\n /** Returns a group with the specified [index].\n *\n @return An instance of [MatchGroup] if the group with the specified [index] was matched or `null` otherwise.\n *\n Groups are indexed from 1 to the count of groups in the regular expression. A group with the index 0 corresponds to the entire match.\n *\n public operator fun get(index: Int): MatchGroup?\n\n}

/**\n * Extends

```



[MatchGroupCollection] by introducing a way to get matched groups by name, when regex supports it.

```

@SinceKotlin("1.1")\npublic interface MatchNamedGroupCollection : MatchGroupCollection {\n    /**\n     * Returns a named group with the specified [name].\n     * @return An instance of [MatchGroup] if the group with the\n     * specified [name] was matched or `null` otherwise.\n     * @throws IllegalArgumentException if there is no group\n     * with the specified [name] defined in the regex pattern.\n     * @throws UnsupportedOperationException if getting\n     * named groups isn't supported on the current platform.\n     */\n    public operator fun get(name:\n    String): MatchGroup?\n}\n\n/**\n * Represents the results from a single regular expression match.\n */\npublic\ninterface MatchResult {\n    /** The range of indices in the original string where match was captured. */\n    public\n    val range: IntRange\n    /** The substring from the input string captured by this match. */\n    public\n    val value: String\n    /**\n     * A collection of groups matched by the regular expression.\n     * This collection has size\n     * of `groupCount + 1` where `groupCount` is the count of groups in the regular expression.\n     * Groups are indexed\n     * from 1 to `groupCount` and group with the index 0 corresponds to the entire match.\n     */\n    public\n    val groups: MatchGroupCollection\n    /**\n     * A list of matched indexed group values.\n     * This list has size of\n     * `groupCount + 1` where `groupCount` is the count of groups in the regular expression.\n     * Groups are indexed\n     * from 1 to `groupCount` and group with the index 0 corresponds to the entire\n     * match.\n     * If the group in the regular expression is optional and there were no match captured by that\n     * group,\n     * corresponding item in [groupValues] is an empty string.\n     */\n    @sample\n    samples.text.Regexps.matchDestructuringToGroupValues\n    public\n    val groupValues: List<String>\n\n    /**\n     * An instance of [MatchResult.Destructured] wrapper providing components for destructuring assignment\n     * of group values.\n     * component1 corresponds to the value of the first group, component2 of the\n     * second, and so on.\n     * @sample samples.text.Regexps.matchDestructuringToGroupValues\n     */\n    public\n    val destructured: Destructured\n    get() = Destructured(this)\n\n    /** Returns a new [MatchResult] with the\n     * results for the next match, starting at the position\n     * at which the last match ended (at the character after the last\n     * matched character).\n     */\n    public\n    fun next(): MatchResult?\n\n    /**\n     * Provides components\n     * for destructuring assignment of group values.\n     * [component1] corresponds to the value of the first group,\n     * [component2] of the second, and so on.\n     * If the group in the regular expression is optional and\n     * there were no match captured by that group,\n     * corresponding component value is an empty string.\n     */\n    @sample\n    samples.text.Regexps.matchDestructuringToGroupValues\n    public\n    class Destructured\n    internal\n    constructor(public\n    val match: MatchResult) {\n        @kotlin.internal.InlineOnly\n        public\n        operator\n        inline\n        fun\n        component1(): String = match.groupValues[1]\n        @kotlin.internal.InlineOnly\n        public\n        operator\n        inline\n        fun\n        component2(): String = match.groupValues[2]\n        @kotlin.internal.InlineOnly\n        public\n        operator\n        inline\n        fun\n        component3(): String = match.groupValues[3]\n        @kotlin.internal.InlineOnly\n        public\n        operator\n        inline\n        fun\n        component4(): String = match.groupValues[4]\n        @kotlin.internal.InlineOnly\n        public\n        operator\n        inline\n        fun\n        component5(): String = match.groupValues[5]\n        @kotlin.internal.InlineOnly\n        public\n        operator\n        inline\n        fun\n        component6(): String = match.groupValues[6]\n        @kotlin.internal.InlineOnly\n        public\n        operator\n        inline\n        fun\n        component7(): String = match.groupValues[7]\n        @kotlin.internal.InlineOnly\n        public\n        operator\n        inline\n        fun\n        component8(): String = match.groupValues[8]\n        @kotlin.internal.InlineOnly\n        public\n        operator\n        inline\n        fun\n        component9(): String = match.groupValues[9]\n        @kotlin.internal.InlineOnly\n        public\n        operator\n        inline\n        fun\n        component10(): String = match.groupValues[10]\n    }\n\n    /**\n     * Returns\n     * destructured group values as a list of strings.\n     * First value in the returned list corresponds to the value of the\n     * first group, and so on.\n     * @sample\n     * samples.text.Regexps.matchDestructuringToGroupValues\n     */\n    public\n    fun\n    toList(): List<String> = match.groupValues.subList(1, match.groupValues.size)\n}\n\n/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the\n * Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass()\n@file:kotlin.jvm.JvmName("DurationUnitKt")\n\npackage\nkotlin.time\n\n/**\n * The list of possible time measurement units, in which a duration can be expressed.\n * The smallest time unit is [NANOSECONDS] and the largest is [DAYS], which corresponds to exactly 24

```

```

[HOURLS].\n *\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalTime::class)\npublic expect enum class
DurationUnit {\n /**\n * Time unit representing one nanosecond, which is 1/1000 of a microsecond.\n *\n
NANOSECONDS,\n /**\n * Time unit representing one microsecond, which is 1/1000 of a millisecond.\n
*\n
MICROSECONDS,\n /**\n * Time unit representing
one millisecond, which is 1/1000 of a second.\n *\n
MILLISECONDS,\n /**\n * Time unit representing
one second.\n *\n
SECONDS,\n /**\n * Time unit representing one minute.\n *\n
MINUTES,\n
/**\n * Time unit representing one hour.\n *\n
HOURS,\n /**\n * Time unit representing one day, which
is always equal to 24 hours.\n *\n
DAYS;\n}\n\n/** Converts the given time duration [value] expressed in the
specified [sourceUnit] into the specified [targetUnit]. *\n@SinceKotlin("1.3")\ninternal expect fun
convertDurationUnit(value: Double, sourceUnit: DurationUnit, targetUnit: DurationUnit): Double\n\n// overflown
result is unspecified\n@SinceKotlin("1.5")\ninternal expect fun convertDurationUnitOverflow(value: Long,
sourceUnit: DurationUnit, targetUnit: DurationUnit): Long\n\n// overflown result is coerced in the Long range
boundaries\n@SinceKotlin("1.5")\ninternal expect fun convertDurationUnit(value: Long, sourceUnit:
DurationUnit, targetUnit: DurationUnit):
Long\n\n\n@SinceKotlin("1.3")\n@Suppress("REDUNDANT_ELSE_IN_WHEN")\ninternal fun
DurationUnit.shortName(): String = when (this) {\n DurationUnit.NANOSECONDS -> "ns"\n
DurationUnit.MICROSECONDS -> "us"\n DurationUnit.MILLISECONDS -> "ms"\n
DurationUnit.SECONDS -> "s"\n DurationUnit.MINUTES -> "m"\n DurationUnit.HOURS -> "h"\n
DurationUnit.DAYS -> "d"\n else -> error("Unknown unit: $this")\n}\n\n@SinceKotlin("1.5")\ninternal fun
durationUnitByShortName(shortName: String): DurationUnit = when (shortName) {\n "ns" ->
DurationUnit.NANOSECONDS\n "us" -> DurationUnit.MICROSECONDS\n "ms" ->
DurationUnit.MILLISECONDS\n "s" -> DurationUnit.SECONDS\n "m" -> DurationUnit.MINUTES\n
"h" -> DurationUnit.HOURS\n "d" -> DurationUnit.DAYS\n else -> throw
IllegalArgumentException("Unknown duration unit short name:
$shortName")\n}\n\n@SinceKotlin("1.5")\ninternal fun durationUnitByIsoChar(isoChar:
Char, isTimeComponent: Boolean): DurationUnit =\n when {\n !isTimeComponent -> {\n when
(isoChar) {\n 'D' -> DurationUnit.DAYS\n else -> throw IllegalArgumentException("Invalid or
unsupported duration ISO non-time unit: $isoChar")\n }\n }\n else -> {\n when (isoChar) {\n
'H' -> DurationUnit.HOURS\n 'M' -> DurationUnit.MINUTES\n 'S' ->
DurationUnit.SECONDS\n else -> throw IllegalArgumentException("Invalid duration ISO time unit:
$isoChar")\n }\n }\n },"/**\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n *\n\npackage kotlin.time\nimport kotlin.annotation.AnnotationTarget.*\n\n/**\n *
This annotation marks the experimental preview of
the standard library API for measuring time and working with durations.\n *\n * > Note that this API is in a preview
state and has a very high chance of being changed in the future.\n *\n * Do not use it if you develop a library since your
library will become binary incompatible\n * with the future versions of the standard library.\n *\n * Any usage of a
declaration annotated with `@ExperimentalTime` must be accepted either by\n * annotating that usage with the
[OptIn] annotation, e.g. `@OptIn(ExperimentalTime::class)`,\n * or by using the compiler argument `-opt-
in=kotlin.time.ExperimentalTime`. \n *\n@RequiresOptIn(level =
RequiresOptIn.Level.ERROR)\n@MustBeDocumented\n@Retention(AnnotationRetention.BINARY)\n@Target(\n
CLASS,\n ANNOTATION_CLASS,\n PROPERTY,\n FIELD,\n LOCAL_VARIABLE,\n
VALUE_PARAMETER,\n CONSTRUCTOR,\n FUNCTION,\n PROPERTY_GETTER,\n
PROPERTY_SETTER,\n TYPEALIAS)\n@SinceKotlin("1.3")\npublic annotation class
ExperimentalTime\n"/**\n
* Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code
is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n *\n\npackage
kotlin.time\n\n/**\n * A source of time for measuring time intervals.\n *\n * The only operation provided by the

```

```

time source is [markNow]. It returns a [TimeMark], which can be used to query the elapsed time later.
@see [measureTime]
@see [measureTimedValue]
@SinceKotlin("1.3")
@ExperimentalTime
public interface TimeSource {
    /**
     * Marks a point in time on this time source.
     *
     * The returned [TimeMark] instance encapsulates the captured time point and allows querying
     * the duration of time interval [elapsed][TimeMark.elapsedNow] from that point.
     */
    public fun markNow(): TimeMark

    /**
     * The most precise time source available in the platform.
     *
     * This time source returns its readings from a source of monotonic time when it is available in a target platform,
     * and resorts to a non-monotonic time source otherwise.
     */
    public object Monotonic : TimeSource by MonotonicTimeSource {
        override fun toString(): String = MonotonicTimeSource.toString()
    }

    /**
     * Represents a time point notched on a particular [TimeSource]. Remains bound to the time source it was taken from
     * and allows querying for the duration of time elapsed from that point (see the function [elapsedNow]).
     */
    @SinceKotlin("1.3")
    @ExperimentalTime
    public abstract class TimeMark {
        /**
         * Returns the amount of time passed from this mark measured with the time source from which this mark was taken.
         *
         * Note that the value returned by this function can change on subsequent invocations.
         */
        public abstract fun elapsedNow(): Duration

        /**
         * Returns a time mark on the same time source that is ahead of this time mark by the specified [duration].
         *
         * The returned time mark is more _late_ when the [duration] is positive, and more _early_ when the [duration] is negative.
         */
        public open operator fun plus(duration: Duration): TimeMark = AdjustedTimeMark(this, duration)

        /**
         * Returns a time mark on the same time source that is behind this time mark by the specified [duration].
         *
         * The returned time mark is more _early_ when the [duration] is positive, and more _late_ when the [duration] is negative.
         */
        public open operator fun minus(duration: Duration): TimeMark = plus(-duration)

        /**
         * Returns true if this time mark has passed according to the time source from which this mark was taken.
         *
         * Note that the value returned by this function can change on subsequent invocations.
         *
         * If the time source is monotonic, it can change only from `false` to `true`, namely, when the time mark becomes behind
         * the current point of the time source.
         */
        public fun hasPassedNow(): Boolean = !elapsedNow().isNegative()

        /**
         * Returns false if this time mark has not passed according to the time source from which this mark was taken.
         *
         * Note that the value returned by this function can change on subsequent invocations.
         *
         * If the time source is monotonic, it can change only from `true` to `false`, namely, when the time mark becomes behind the current point of the time source.
         */
        public fun hasNotPassedNow(): Boolean = elapsedNow().isNegative()
    }

    @ExperimentalTime
    @SinceKotlin("1.3")
    @kotlin.internal.InlineOnly
    @Deprecated(" Subtracting one TimeMark from another is not a well defined operation because these time marks could have been obtained from the different time sources.", level = DeprecationLevel.ERROR)
    @Suppress("UNUSED_PARAMETER")
    public inline operator fun TimeMark.minus(other: TimeMark): Duration = throw Error("Operation is disallowed.")

    @ExperimentalTime
    @SinceKotlin("1.3")
    @kotlin.internal.InlineOnly
    @Deprecated(" Comparing one TimeMark to another is not a well defined operation because these time marks could have been obtained from the different time sources.", level = DeprecationLevel.ERROR)
    @Suppress("UNUSED_PARAMETER")
    public inline operator fun TimeMark.compareTo(other: TimeMark): Int = throw Error("Operation is disallowed.")

    @ExperimentalTime
    private class AdjustedTimeMark(val mark: TimeMark, val adjustment: Duration) : TimeMark() {
        override fun elapsedNow(): Duration = mark.elapsedNow() - adjustment
        override fun plus(duration: Duration): TimeMark = AdjustedTimeMark(mark, adjustment + duration)
    }
}

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*/
package kotlin.time
@SinceKotlin("1.3")
@ExperimentalTime
internal expect object MonotonicTimeSource : TimeSource {
    /**
     * An abstract class used to implement time sources that return their readings as [Long] values in the specified [unit].
     *
     * @property unit The unit in which this time

```

```

source's readings are expressed.
*/@SinceKotlin("1.3")@ExperimentalTime
public abstract class
AbstractLongTimeSource(protected val unit: DurationUnit) : TimeSource {
    /** This protected method should be overridden to return the current reading of the time source expressed as a [Long] number in the unit specified by the [unit] property.
    protected abstract fun read(): Long
    private class
LongTimeMark(private val startedAt: Long, private val timeSource: AbstractLongTimeSource, private val offset: Duration) : TimeMark() {
    override fun elapsedNow(): Duration = (timeSource.read() - startedAt).toDuration(timeSource.unit) - offset
    override fun plus(duration: Duration): TimeMark = LongTimeMark(startedAt, timeSource, offset + duration)
}
}
override fun markNow(): TimeMark = LongTimeMark(read(), this, Duration.ZERO)
}
}
/** An abstract class used to implement time sources that return their readings as [Double] values in the specified [unit].
@property unit The unit in which this time source's readings are expressed.
*/@SinceKotlin("1.3")@ExperimentalTime
public abstract class AbstractDoubleTimeSource(protected val unit: DurationUnit) : TimeSource {
    /** This protected method should be overridden to return the current reading of the time source expressed as a [Double] number in the unit specified by the [unit] property.
    protected abstract fun read(): Double
    private class DoubleTimeMark(private val startedAt: Double, private val timeSource: AbstractDoubleTimeSource, private val offset: Duration) : TimeMark() {
    override fun elapsedNow(): Duration = (timeSource.read() - startedAt).toDuration(timeSource.unit) - offset
    override fun plus(duration: Duration): TimeMark = DoubleTimeMark(startedAt, timeSource, offset + duration)
}
}
override fun markNow(): TimeMark = DoubleTimeMark(read(), this, Duration.ZERO)
}
}
/** A time source that has programmatically updatable readings. It is useful as a predictable source of time in tests.
The current reading value can be advanced by the specified duration amount with the operator [plusAssign]:
val timeSource = TestTimeSource()
timeSource += 10.seconds
Implementation note: the current reading value is stored as a [Long] number of nanoseconds, thus it's capable to represent a time range of approximately 1292 years.
Should the reading value overflow as the result of [plusAssign] operation, an [IllegalStateException] is thrown.
*/@SinceKotlin("1.3")@ExperimentalTime
public class TestTimeSource : AbstractLongTimeSource(unit = DurationUnit.NANOSECONDS) {
    private var reading: Long = 0L
    override fun read(): Long = reading
    /** Advances the current reading value of this time source by the specified [duration].
    [duration] value is rounded down towards zero when converting it to a [Long] number of nanoseconds.
    For example, if the duration being added is `0.6.nanoseconds`, the reading doesn't advance because the duration value is rounded to zero nanoseconds.
    @throws IllegalStateException when the reading value overflows as the result of this operation.
    public operator fun plusAssign(duration: Duration) {
        val longDelta = duration.toLong(unit)
        reading = if (longDelta != Long.MIN_VALUE && longDelta != Long.MAX_VALUE) {
            // when delta fits in long, add it as long
            val newReading = reading + longDelta
            if (reading xor longDelta >= 0 && reading xor newReading < 0) overflow(duration)
            newReading
        } else {
            val delta = duration.toDouble(unit)
            // when delta is greater than long, add it as double
            val newReading = reading + delta
            if (newReading > Long.MAX_VALUE || newReading < Long.MIN_VALUE) overflow(duration)
            newReading.toLong()
        }
    }
    private fun overflow(duration: Duration) {
        throw IllegalStateException("TestTimeSource will overflow if its reading ${reading}ns is advanced by $duration.")
    }
}
}
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*/@package kotlin.time
nimport kotlin.contracts.*
/** Executes the given function [block] and returns the duration of elapsed time interval.
The elapsed time is measured with [TimeSource.Monotonic].
*/@SinceKotlin("1.3")@ExperimentalTime
public inline fun measureTime(block: () -> Unit): Duration {
    contract {
        callsInPlace(block, InvocationKind.EXACTLY_ONCE)
    }
    return TimeSource.Monotonic.measureTime(block)
}
}
/** Executes the given function [block] and returns the duration of elapsed time interval.
The elapsed time is measured with the specified `this` [TimeSource] instance.

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*\n@SinceKotlin("1.3")\n@ExperimentalTime\npublic inline fun TimeSource.measureTime(block: () -> Unit):
Duration {\n    contract {\n        callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n    }\n    val mark =
markNow()\n    block()\n    return mark.elapsedNow()\n}\n\n/**\n * Data class representing a result of executing
an action, along with the duration of elapsed time interval.\n *\n * @property value the result of the action.\n *\n * @property duration the time elapsed to execute the action.\n
*\n@SinceKotlin("1.3")\n@ExperimentalTime\npublic data class TimedValue<T>(val value:
T, val duration: Duration)\n\n/**\n * Executes the given function [block] and returns an instance of [TimedValue]
class, containing both\n * the result of the function execution and the duration of elapsed time interval.\n *\n * The
elapsed time is measured with [TimeSource.Monotonic].\n *\n@SinceKotlin("1.3")\n@ExperimentalTime\npublic
inline fun <T> measureTimedValue(block: () -> T): TimedValue<T> {\n    contract {\n        callsInPlace(block,
InvocationKind.EXACTLY_ONCE)\n    }\n    return
TimeSource.Monotonic.measureTimedValue(block)\n}\n\n/**\n * Executes the given [block] and returns an
instance of [TimedValue] class, containing both\n * the result of function execution and the duration of elapsed time
interval.\n *\n * The elapsed time is measured with the specified `this` [TimeSource] instance.\n
*\n@SinceKotlin("1.3")\n@ExperimentalTime\npublic inline fun <T> TimeSource.measureTimedValue(block: ()
-> T): TimedValue<T> {\n    contract {\n        callsInPlace(block,
InvocationKind.EXACTLY_ONCE)\n    }\n    val mark = markNow()\n    val result = block()\n    return
TimedValue(result, mark.elapsedNow())\n}\n\n"/**\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n *\n@package kotlin\n\nimport kotlin.coroutines.*\nimport
kotlin.coroutines.intrinsics.*\nimport kotlin.native.concurrent.SharedImmutable\n\n/**\n * Defines deep recursive
function that keeps its stack on the heap,\n * which allows very deep recursive computations that do not use the
actual call stack.\n * To initiate a call to this deep recursive function use its [invoke] function.\n * As a rule of
thumb, it should be used if recursion goes deeper than a thousand calls.\n *\n * The [DeepRecursiveFunction] takes
one parameter of type [T] and returns a result of type [R].\n * The [block] of code defines the body of a recursive
function.

In this block\n * [callRecursive][DeepRecursiveScope.callRecursive] function can be used to make a recursive
call\n * to the declared function. Other instances of [DeepRecursiveFunction] can be called\n * in this scope with
`callRecursive` extension, too.\n *\n * For example, take a look at the following recursive tree class and a deeply\n *
recursive instance of this tree with 100K nodes:\n *\n * ```\n * class Tree(val left: Tree? = null, val right: Tree? =
null)\n * val deepTree = generateSequence(Tree()) { Tree(it) }.take(100_000).last()\n * ```\n *\n * A regular
recursive function can be defined to compute a depth of a tree:\n *\n * ```\n * fun depth(t: Tree?): Int =\n *     if (t ==
null) 0 else max(depth(t.left), depth(t.right)) + 1\n * println(depth(deepTree)) // StackOverflowError\n * ```\n *\n *
If this `depth` function is called for a `deepTree` it produces [StackOverflowError] because of deep recursion.\n *
However, the `depth` function can be rewritten using `DeepRecursiveFunction`
in the following way, and then\n * it successfully computes [depth(deepTree)][DeepRecursiveFunction.invoke]
expression:\n *\n * ```\n * val depth = DeepRecursiveFunction<Tree?, Int> { t ->\n *     if (t == null) 0 else
max(callRecursive(t.left), callRecursive(t.right)) + 1\n * }\n * println(depth(deepTree)) // Ok\n * ```\n *\n * Deep
recursive functions can also mutually call each other using a heap for the stack via\n *
[callRecursive][DeepRecursiveScope.callRecursive] extension. For example, the\n * following pair of mutually
recursive functions computes the number of tree nodes at even depth in the tree.\n *\n * ```\n * val mutualRecursion
= object {\n *     val even: DeepRecursiveFunction<Tree?, Int> = DeepRecursiveFunction { t ->\n *         if (t ==
null) 0 else odd.callRecursive(t.left) + odd.callRecursive(t.right) + 1\n *     }\n *     val odd:
DeepRecursiveFunction<Tree?, Int> = DeepRecursiveFunction { t ->\n *         if (t == null) 0 else
even.callRecursive(t.left)
+ even.callRecursive(t.right)\n *     }\n * }\n * ```\n *\n * @param [T] the function parameter type.\n * @param [R]
the function result type.\n * @param block the function body.\n
*\n@SinceKotlin("1.4")\n@ExperimentalStdlibApi\npublic class DeepRecursiveFunction<T, R>(\n    internal val

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(true) {\n          // Note: cont is set to null in DeepRecursiveScopeImpl.resumeWith when the whole computation
completes\n          val result = this.result\n          val cont = this.cont\n          ?: return (result as
Result<R>).getOrThrow() // done -- final result\n          // The order of comparison is important here for that case of
rogue class with broken equals\n          if (UNDEFINED_RESULT == result) {\n          // call \"function\" with
\"value\" using \"cont\" as completion\n          val r = try {\n          // This is block.startCoroutine(this,
value, cont)\n          function.startCoroutineUninterceptedOrReturn(this, value, cont)\n          } catch (e:
Throwable) {\n
cont.resumeWithException(e)\n          continue\n          }\n          // If the function returns without
suspension -- calls its continuation immediately\n          if (r !== COROUTINE_SUSPENDED)\ncont.resume(r as R)\n          } else {\n          // we returned from a crossFunctionCompletion trampoline -- call
resume here\n          this.result = UNDEFINED_RESULT // reset result back\n
cont.resumeWith(result)\n          }\n          }\n          }\n          }\"/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n * \n\n// Auto-generated file. DO NOT
EDIT!\n\n@file:kotlin.jvm.JvmName(\"NumbersKt\")\n\n@file:kotlin.jvm.JvmMultifileClass\n\npackage
kotlin\n\nimport kotlin.math.sign\n\n/** Divides this value by the other value, flooring the result to an integer that is
closer
to negative infinity. *\n\n@SinceKotlin(\"1.5\")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun Byte.floorDiv(other:
Byte): Int = \n this.toInt().floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of flooring division of this
value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute
value less than the absolute value of the divisor.\n *\n\n@SinceKotlin(\"1.5\")\n\n@kotlin.internal.InlineOnly\n\npublic
inline fun Byte.mod(other: Byte): Byte = \n this.toInt().mod(other.toInt()).toByte()\n\n/** Divides this value by
the other value, flooring the result to an integer that is closer to negative infinity.
*\n\n@SinceKotlin(\"1.5\")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun Byte.floorDiv(other: Short): Int = \n
this.toInt().floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of flooring division of this value by the other
value.\n * \n * The result is either zero or has the same sign as the _divisor_
and has the absolute value less than the absolute value of the divisor.\n
*\n\n@SinceKotlin(\"1.5\")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun Byte.mod(other: Short): Short = \n
this.toInt().mod(other.toInt()).toShort()\n\n/** Divides this value by the other value, flooring the result to an integer
that is closer to negative infinity. *\n\n@SinceKotlin(\"1.5\")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun
Byte.floorDiv(other: Int): Int = \n this.toInt().floorDiv(other)\n\n/**\n * Calculates the remainder of flooring
division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and
has the absolute value less than the absolute value of the divisor.\n
*\n\n@SinceKotlin(\"1.5\")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun Byte.mod(other: Int): Int = \n
this.toInt().mod(other)\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to
negative infinity. *\n\n@SinceKotlin(\"1.5\")\n\n@kotlin.internal.InlineOnly\n\npublic
inline fun Byte.floorDiv(other: Long): Long = \n this.toLong().floorDiv(other)\n\n/**\n * Calculates the
remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign
as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n
*\n\n@SinceKotlin(\"1.5\")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun Byte.mod(other: Long): Long = \n
this.toLong().mod(other)\n\n/** Divides this value by the other value, flooring the result to an integer that is closer
to negative infinity. *\n\n@SinceKotlin(\"1.5\")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun Short.floorDiv(other:
Byte): Int = \n this.toInt().floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of flooring division of this
value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute
value less than the absolute value of the divisor.\n
*\n\n@SinceKotlin(\"1.5\")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun Short.mod(other: Byte): Byte = \n
this.toInt().mod(other.toInt()).toByte()\n\n/** Divides this value by the other value, flooring the result to an integer
that is closer to negative infinity. *\n\n@SinceKotlin(\"1.5\")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun

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Short.floorDiv(other: Short): Int = \n  this.toInt().floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n\n*/\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\npublic inline fun Short.mod(other: Short): Short = \n this.toInt().mod(other.toInt()).toShort()\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\npublic inline fun Short.floorDiv(other: Int): Int = \n  this.toInt().floorDiv(other)\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n\n*/\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\npublic inline fun Short.mod(other: Int): Int = \n this.toInt().mod(other)\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\npublic inline fun Short.floorDiv(other: Long): Long = \n  this.toLong().floorDiv(other)\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n\n*/\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\npublic inline fun Short.mod(other: Long): Long = \n  this.toLong().mod(other)\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\npublic inline fun Int.floorDiv(other: Byte): Int = \n this.floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n\n*/\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\npublic inline fun Int.mod(other: Byte): Byte = \n  this.mod(other.toInt()).toByte()\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\npublic inline fun Int.floorDiv(other: Short): Int = \n this.floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n\n*/\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\npublic inline fun Int.mod(other: Short): Short = \n this.mod(other.toInt()).toShort()\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\npublic inline fun Int.floorDiv(other: Int): Int {\n  var q = this / other\n  if (this xor other < 0 && q * other != this) q--\n  return q\n}\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n\n*/\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\npublic inline fun Int.mod(other: Int): Int {\n  val r = this % other\n  return r + (other and (((r xor other) and (r or -r)) shr 31))\n}\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\npublic inline fun Int.floorDiv(other: Long): Long = \n this.toLong().floorDiv(other)\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n\n*/\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\npublic inline fun Int.mod(other: Long): Long = \n  this.toLong().mod(other)\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\npublic inline fun Long.floorDiv(other: Byte): Long = \n this.floorDiv(other.toLong())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n\n*/\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\npublic inline fun Long.mod(other: Byte): Byte = \n this.mod(other.toLong()).toByte()\n\n/** Divides this value by the other value, flooring the result to an integer that

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is closer to negative infinity.
@SinceKotlin("1.5")@kotlin.internal.InlineOnly
public inline fun Long.floorDiv(other: Short): Long =
    this.floorDiv(other.toLong())
    * Calculates the remainder of flooring division of this value by the other value.
    * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.

@SinceKotlin("1.5")@kotlin.internal.InlineOnly
public inline fun Long.mod(other: Short): Short =
    this.mod(other.toLong()).toShort()
    Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.

@SinceKotlin("1.5")@kotlin.internal.InlineOnly
public inline fun Long.floorDiv(other: Int): Long =
    this.floorDiv(other.toLong())
    * Calculates the remainder of flooring division of this value by the other value.
    * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.

@SinceKotlin("1.5")@kotlin.internal.InlineOnly
public inline fun Long.mod(other: Int): Int =
    this.mod(other.toLong()).toInt()
    Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.

@SinceKotlin("1.5")@kotlin.internal.InlineOnly
public inline fun Long.floorDiv(other: Long): Long {
    var q = this / other
    if (this xor other < 0 && q * other != this) q--
    return q
}
    * Calculates the remainder of flooring division of this value by the other value.
    * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.

@SinceKotlin("1.5")@kotlin.internal.InlineOnly
public inline fun Long.mod(other: Long): Long {
    val r = this % other
    return r + (other and (((r xor other) and (r or -r)) shr 63))
}
    * Calculates the remainder of flooring division of this value by the other value.
    * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.
    * If the result cannot be represented exactly, it is rounded to the nearest representable number. In this case the absolute value of the result can be less than or _equal to_ the absolute value of the divisor.

@SinceKotlin("1.5")@kotlin.internal.InlineOnly
public inline fun Float.mod(other: Float): Float {
    val r = this % other
    return if (r != 0.0.toFloat() && r.sign != other.sign) r + other else r
}
    * Calculates the remainder of flooring division of this value by the other value.
    * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.
    * If the result cannot be represented exactly, it is rounded to the nearest representable number. In this case the absolute value of the result can be less than or _equal to_ the absolute value of the divisor.

@SinceKotlin("1.5")@kotlin.internal.InlineOnly
public inline fun Float.mod(other: Double): Double =
    this.toDouble().mod(other)
    * Calculates the remainder of flooring division of this value by the other value.
    * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.
    * If the result cannot be represented exactly, it is rounded to the nearest representable number. In this case the absolute value of the result can be less than or _equal to_ the absolute value of the divisor.

@SinceKotlin("1.5")@kotlin.internal.InlineOnly
public inline fun Double.mod(other: Float): Double =
    this.mod(other.toDouble())
    * Calculates the remainder of flooring division of this value by the other value.
    * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.
    * If the result cannot be represented exactly, it is rounded to the nearest representable number. In this case the absolute value of the result can be less than or _equal to_ the absolute value of the divisor.

@SinceKotlin("1.5")@kotlin.internal.InlineOnly
public inline fun Double.mod(other: Double): Double {
    val r = this % other
    return if (r != 0.0 && r.sign != other.sign) r + other else r
}
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@npackage kotlin
@nimport kotlin.internal.InlineOnly
    * Returns a hash code value for the object or zero if the object is `null`.

@see Any.hashCode
@SinceKotlin("1.3")@InlineOnly
public inline fun Any?.hashCode(): Int =
    this?.hashCode() ?: 0
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contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin\n\n/**\n * Represents a version of the Kotlin standard library.\n *\n * [major], [minor] and [patch] are integer components of a version,\n * they must be non-negative and not
greater than 255 ([MAX_COMPONENT_VALUE]).\n *\n * @constructor Creates a version from all three
components.\n */\n@SinceKotlin("1.1")\npublic
class KotlinVersion(val major: Int, val minor: Int, val patch: Int) : Comparable<KotlinVersion> {\n    /**\n     *
Creates a version from [major] and [minor] components, leaving [patch] component zero.\n     *\n     * public
constructor(major: Int, minor: Int) : this(major, minor, 0)\n     * private val version = versionOf(major, minor,
patch)\n     * private fun versionOf(major: Int, minor: Int, patch: Int): Int {\n     *     require(major in
0..MAX_COMPONENT_VALUE && minor in 0..MAX_COMPONENT_VALUE && patch in
0..MAX_COMPONENT_VALUE) {\n     *         \nVersion components are out of range: $major.$minor.$patch\n     *     }\n     *     return major.shl(16) + minor.shl(8) + patch\n     * }\n     * /**\n     * Returns the string representation of this
version\n     *\n     * override fun toString(): String = "$major.$minor.$patch"\n     * override fun equals(other:
Any?): Boolean {\n     *     if (this === other) return true\n     *     val otherVersion = (other as? KotlinVersion) ?: return
false\n     *\n     *     return this.version == otherVersion.version\n     * }\n     * override fun hashCode(): Int = version\n     * override
fun compareTo(other: KotlinVersion): Int = version - other.version\n     * /**\n     * Returns `true` if this version is
not less than the version specified\n     * with the provided [major] and [minor] components.\n     *\n     * public fun
isAtLeast(major: Int, minor: Int): Boolean = // this.version >= versionOf(major, minor, 0)\n     * this.major > major ||
(this.major == major &&\n     *     this.minor >= minor)\n     * /**\n     * Returns `true` if this version is not less
than the version specified\n     * with the provided [major], [minor] and [patch] components.\n     *\n     * public fun
isAtLeast(major: Int, minor: Int, patch: Int): Boolean = // this.version >= versionOf(major, minor, patch)\n     * this.major > major || (this.major == major &&\n     *     (this.minor > minor || this.minor == minor &&\n     *     this.patch >= patch))\n     *\n     * companion object {\n     *     /**\n     *     * Maximum value a version component can have, a constant value 255.\n     *     *\n     *     // NOTE: Must be placed before CURRENT because its initialization requires this field being initialized
in JS\n     *     public const val MAX_COMPONENT_VALUE = 255\n     *     /**\n     *     * Returns the current version
of the Kotlin standard library.\n     *     *\n     *     @kotlin.jvm.JvmField\n     *     public val CURRENT: KotlinVersion =
KotlinVersionCurrentValue.get()\n     * }\n     *\n     * // this class is ignored during classpath normalization when
considering whether to recompile dependencies in Kotlin build\n     * private object KotlinVersionCurrentValue {\n     *     @kotlin.jvm.JvmStatic\n     *     fun get(): KotlinVersion = KotlinVersion(1, 6, 21) // value is written here automatically
during build\n     * },"/\n     * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n     * Use of this source code is governed by the Apache 2.0 license that can be found
in the license/LICENSE.txt file.\n     *\n     * @file:kotlin.jvm.JvmName("LateinitKt")\n     * @file:Suppress("unused")\n     * package kotlin\n     * import
kotlin.internal.InlineOnly\n     * import kotlin.internal.AccessibleLateinitPropertyLiteral\n     * import
kotlin.reflect.KProperty0\n     * /**\n     * Returns `true` if this lateinit property has been assigned a value, and `false`
otherwise.\n     *\n     * * Cannot be used in an inline function, to avoid binary compatibility issues.\n     *\n     * @SinceKotlin("1.2")\n     * @InlineOnly\n     * inline val @receiver:AccessibleLateinitPropertyLiteral
KProperty0<*>.isInitialized: Boolean\n     * get() = throw NotImplementedError("Implementation is
intrinsic")\n     * },"/\n     * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n     * Use
of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n     *\n     * @file:kotlin.jvm.JvmName("LazyKt")\n     * @file:kotlin.jvm.JvmMultifileClass\n     * package kotlin\n     * import
kotlin.reflect.KProperty\n     * /**\n     *\n     * * Represents a value with lazy initialization.\n     *\n     * * To create an instance of [Lazy] use the [lazy] function.\n     *\n     * public interface Lazy<out T> {\n     *     /**\n     *     * Gets the lazily initialized value of the current Lazy instance.\n     *     *\n     *     * Once the value was initialized it must not change during the rest of lifetime of this Lazy instance.\n     *     *\n     *     * public
val value: T\n     *     /**\n     *     * Returns `true` if a value for this Lazy instance has been already initialized, and `false`

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otherwise.\n * Once this function has returned `true` it stays `true` for the rest of lifetime of this Lazy instance.\n
*/\n public fun isInitialized(): Boolean\n}\n\n/**\n * Creates a new instance of the [Lazy] that is already
initialized with the specified [value].\n */\npublic fun <T> lazyOf(value: T): Lazy<T> =
InitializedLazyImpl(value)\n\n/**\n * An extension to delegate a read-only property of type [T] to an instance of
[Lazy].\n */\n * This extension allows to use instances of Lazy for property
delegation:\n * `val property: String by lazy { initializer }`\n */\n@kotlin.internal.InlineOnly\npublic inline operator
fun <T> Lazy<T>.getValue(thisRef: Any?, property: KProperty<*>): T = value\n\n/**\n * Specifies how a [Lazy]
instance synchronizes initialization among multiple threads.\n */\npublic enum class LazyThreadSafetyMode {\n\n
/**\n * Locks are used to ensure that only a single thread can initialize the [Lazy] instance.\n */\n
SYNCHRONIZED,\n\n /**\n * Initializer function can be called several times on concurrent access to
uninitialized [Lazy] instance value,\n * but only the first returned value will be used as the value of [Lazy]
instance.\n */\n PUBLICATION,\n\n /**\n * No locks are used to synchronize an access to the [Lazy]
instance value; if the instance is accessed from multiple threads, its behavior is undefined.\n */\n * This mode
should not be used unless the [Lazy] instance is guaranteed never to be initialized
from more than one thread.\n */\n NONE,\n}\n\ninternal object UNINITIALIZED_VALUE\n\n// internal to
be called from lazy in JS\ninternal class UnsafeLazyImpl<out T>(initializer: () -> T) : Lazy<T>, Serializable {\n
private var initializer: (() -> T)? = initializer\n private var _value: Any? = UNINITIALIZED_VALUE\n\n
override val value: T\n get() {\n if (_value === UNINITIALIZED_VALUE) {\n _value =
initializer!()\n initializer = null\n }\n @Suppress("UNCHECKED_CAST")\n return
_value as T\n }\n\n override fun isInitialized(): Boolean = _value !== UNINITIALIZED_VALUE\n\n
override fun toString(): String = if (isInitialized()) value.toString() else "Lazy value not initialized yet."\n\n
private fun writeReplace(): Any = InitializedLazyImpl(value)\n}\n\ninternal class InitializedLazyImpl<out
T>(override val value: T) : Lazy<T>, Serializable {\n override fun isInitialized():
Boolean = true\n override fun toString(): String = value.toString()\n}\n\n", "/*\n * Copyright 2010-2019
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("NumbersKt")\npackage kotlin\n\n/**\n *
Counts the number of set bits in the binary representation of this [Int] number.\n
*/\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun
Int.countOneBits(): Int\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary
representation of this [Int] number.\n
*/\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun
Int.countLeadingZeroBits(): Int\n\n/**\n * Counts the number of consecutive least significant bits that are zero in
the binary representation of this [Int] number.\n
*/\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic
expect fun Int.countTrailingZeroBits(): Int\n\n/**\n * Returns a number having a single bit set in the position of the
most significant set bit of this [Int] number,\n * or zero, if this number is zero.\n
*/\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun
Int.takeHighestOneBit(): Int\n\n/**\n * Returns a number having a single bit set in the position of the least
significant set bit of this [Int] number,\n * or zero, if this number is zero.\n
*/\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun
Int.takeLowestOneBit(): Int\n\n/**\n * Rotates the binary representation of this [Int] number left by the specified
[bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least
significant bits on the right side.\n * Rotating the number left by a negative bit count is the same
as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n * Rotating
by a multiple of [Int.SIZE_BITS] (32) returns the same number, or more generally\n * `number.rotateLeft(n) ==
number.rotateLeft(n % 32)`\n
*/\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun

```

Int.rotateLeft(bitCount: Int): Int\n\n/\*\*\n \* Rotates the binary representation of this [Int] number right by the specified [bitCount] number of bits.\n \* The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n \*\n \* Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n \* `number.rotateRight(-n) == number.rotateLeft(n)`\n \*\n \* Rotating by a multiple of [Int.SIZE\_BITS] (32) returns the same number, or more generally\n \* `number.rotateRight(n) == number.rotateRight(n % 32)`\n

\*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Int.rotateRight(bitCount: Int): Int\n\n/\*\*\n \* Counts the number of set bits in the binary representation of this [Long] number.\n \*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.countOneBits(): Int\n\n/\*\*\n \* Counts the number of consecutive most significant bits that are zero in the binary representation of this [Long] number.\n

\*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.countLeadingZeroBits(): Int\n\n/\*\*\n \* Counts the number of consecutive least significant bits that are zero in the binary representation of this [Long] number.\n

\*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.countTrailingZeroBits(): Int\n\n/\*\*\n \* Returns a number having a single bit set in the position of the most significant set bit of this [Long] number,\n \* or zero, if this number is zero.\n

\*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.takeHighestOneBit(): Long\n\n/\*\*\n \* Returns a number having a single bit set in the position of the least significant set bit of this [Long] number,\n \* or zero, if this number is zero.\n

\*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.takeLowestOneBit(): Long\n\n/\*\*\n \* Rotates the binary representation of this [Long] number left by the specified [bitCount] number of bits.\n \* The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n \*\n \* Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n \* `number.rotateLeft(-n) == number.rotateRight(n)`\n \*\n \* Rotating by a multiple of [Long.SIZE\_BITS] (64) returns the same number, or more generally\n \* `number.rotateLeft(n) == number.rotateLeft(n % 64)`\n

\*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.rotateLeft(bitCount: Int): Long\n\n/\*\*\n \* Rotates the binary representation of this [Long] number right by the specified [bitCount] number of bits.\n \* The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n \*\n \* Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n \* `number.rotateRight(-n) == number.rotateLeft(n)`\n \*\n \* Rotating by a multiple of [Long.SIZE\_BITS] (64) returns the same number, or more generally\n \* `number.rotateRight(n) == number.rotateRight(n % 64)`\n

\*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.rotateRight(bitCount: Int): Long\n\n/\*\*\n \* Counts the number of set bits in the binary representation of this [Byte] number.\n

\*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.countOneBits(): Int = (toInt() and 0xFF).countOneBits()\n\n/\*\*\n \* Counts the number of consecutive most significant bits that are zero in the binary representation of this [Byte] number.\n

\*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.countLeadingZeroBits(): Int = (toInt() and 0xFF).countLeadingZeroBits() - (Int.SIZE\_BITS - Byte.SIZE\_BITS)\n\n/\*\*\n \* Counts the number of consecutive least significant bits that are zero in the binary representation of this [Byte] number.\n

\*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.countTrailingZeroBits(): Int = (toInt() or 0x100).countTrailingZeroBits()\n\n/\*\*\n \* Returns a number having a single bit set in the position of the most significant set bit of this [Byte] number,\n \* or zero, if this

number is zero.\n

```
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic
```

```
c inline fun Byte.takeHighestOneBit(): Byte = (toInt() and 0xFF).takeHighestOneBit().toByte()\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [Byte] number,\n * or zero, if this number is zero.\n
```

```
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic c inline fun Byte.takeLowestOneBit(): Byte = toInt().takeLowestOneBit().toByte()\n\n/**\n * Rotates the binary representation of this [Byte] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n * Rotating by a multiple of [Byte.SIZE_BITS] (8) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 8)`\n
```

```
*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun
```

```
Byte.rotateLeft(bitCount: Int): Byte =\n    (toInt().shl(bitCount and 7) or (toInt() and 0xFF).ushr(8 - (bitCount and 7))).toByte()\n\n/**\n * Rotates the binary representation of this [Byte] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n * Rotating by a multiple of [Byte.SIZE_BITS] (8) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 8)`\n
```

```
*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun
```

```
Byte.rotateRight(bitCount: Int): Byte =\n    (toInt().shl(8 - (bitCount and 7)) or (toInt() and 0xFF).ushr(bitCount and 7)).toByte()\n\n/**\n * Counts the number of set bits in the binary representation of this [Short] number.\n
```

```
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic c inline fun Short.countOneBits(): Int = (toInt() and 0xFFFF).countOneBits()\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [Short] number.\n
```

```
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic c inline fun Short.countLeadingZeroBits(): Int =\n    (toInt() and 0xFFFF).countLeadingZeroBits() - (Int.SIZE_BITS - Short.SIZE_BITS)\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [Short] number.\n
```

```
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic c inline fun Short.countTrailingZeroBits():
```

```
Int = (toInt() or 0x10000).countTrailingZeroBits()\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [Short] number,\n * or zero, if this number is zero.\n
```

```
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic c inline fun Short.takeHighestOneBit(): Short = (toInt() and 0xFFFF).takeHighestOneBit().toShort()\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [Short] number,\n * or zero, if this number is zero.\n
```

```
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic c inline fun Short.takeLowestOneBit(): Short = toInt().takeLowestOneBit().toShort()\n\n/**\n * Rotates the binary representation of this [Short] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number
```

```
as the least significant bits on the right side.\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n * Rotating by a multiple of [Short.SIZE_BITS] (16) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 16)`\n
```

```

*\/n@SinceKotlin("1.6")\/n@WasExperimental(ExperimentalStdlibApi::class)\/npublic fun
Short.rotateLeft(bitCount: Int): Short =\/n (toInt().shl(bitCount and 15) or (toInt() and 0xFFFF).ushr(16 - (bitCount
and 15))).toShort()\/n\/n**\/n * Rotates the binary representation of this [Short] number right by the specified
[bitCount] number of bits.\/n * The least significant bits pushed out from the right side reenter the number as the
most significant bits on the left side.\/n *\/n * Rotating the number right by a negative bit count is the same as rotating
it left by the negated bit count:\/n * `number.rotateRight(-n) ==
number.rotateLeft(n)`\/n *\/n * Rotating by a multiple of [Short.SIZE_BITS] (16) returns the same number, or more
generally\/n * `number.rotateRight(n) == number.rotateRight(n % 16)`\/n
*\/n@SinceKotlin("1.6")\/n@WasExperimental(ExperimentalStdlibApi::class)\/npublic fun
Short.rotateRight(bitCount: Int): Short =\/n (toInt().shl(16 - (bitCount and 15)) or (toInt() and
0xFFFF).ushr(bitCount and 15)).toShort()\/n", /*\/n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming
Language contributors.\/n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\/n *\/n\/npackage kotlin\/nimport kotlin.internal.RequireKotlin\/nimport
kotlin.internal.RequireKotlinVersionKind\/n\/n@kotlin.internal.InlineOnly\/n@SinceKotlin("1.2")\/n@Suppress("IN
VISIBLE_MEMBER", "INVISIBLE_REFERENCE")\/n@RequireKotlin("1.2.30", level =
DeprecationLevel.HIDDEN, versionKind = RequireKotlinVersionKind.COMPILER_VERSION)\/npublic inline fun
<R> suspend(noinline
block: suspend () -> R): suspend () -> R = block\/n", /*\/n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin
Programming Language contributors.\/n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\/n *\/n@file:kotlin.jvm.JvmName("TuplesKt")\/n\/npackage
kotlin\/n\/n\/n**\/n * Represents a generic pair of two values.\/n *\/n * There is no meaning attached to values in this
class, it can be used for any purpose.\/n * Pair exhibits value semantics, i.e. two pairs are equal if both components
are equal.\/n *\/n * An example of decomposing it into values:\/n * @sample samples.misc.Tuples.pairDestructuring\/n
*\/n * @param A type of the first value.\/n * @param B type of the second value.\/n * @property first First value.\/n *
@property second Second value.\/n * @constructor Creates a new instance of Pair.\/n *\/npublic data class Pair<out
A, out B>(\/n public val first: A,\/n public val second: B) : Serializable {\/n\/n /**\/n * Returns
string representation of the [Pair] including its [first] and [second] values.\/n *\/n public override fun toString():
String = "$first, $second"\/n}\/n\/n**\/n * Creates a tuple of type [Pair] from this and [that].\/n *\/n * This can be
useful for creating [Map] literals with less noise, for example:\/n * @sample
samples.collections.Maps.instantiation.mapFromPairs\/n *\/npublic infix fun <A, B> A.to(that: B): Pair<A, B> =
Pair(this, that)\/n\/n**\/n * Converts this pair into a list.\/n * @sample samples.misc.Tuples.pairToList\/n *\/npublic
fun <T> Pair<T, T>.toList(): List<T> = listOf(first, second)\/n\/n**\/n * Represents a triad of values\/n *\/n * There is
no meaning attached to values in this class, it can be used for any purpose.\/n * Triple exhibits value semantics, i.e.
two triples are equal if all three components are equal.\/n * An example of decomposing it into values:\/n * @sample
samples.misc.Tuples.tripleDestructuring\/n *\/n * @param A type of the first value.\/n * @param B type
of the second value.\/n * @param C type of the third value.\/n * @property first First value.\/n * @property second
Second value.\/n * @property third Third value.\/n *\/npublic data class Triple<out A, out B, out C>(\/n public val
first: A,\/n public val second: B,\/n public val third: C) : Serializable {\/n\/n /**\/n * Returns string
representation of the [Triple] including its [first], [second] and [third] values.\/n *\/n public override fun
toString(): String = "$first, $second, $third"\/n}\/n\/n**\/n * Converts this triple into a list.\/n * @sample
samples.misc.Tuples.tripleToList\/n *\/npublic fun <T> Triple<T, T, T>.toList(): List<T> = listOf(first, second,
third)\/n", /*\/n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\/n * Use of
this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\/n *\/n\/n//
Auto-generated file. DO NOT EDIT!\/n\/npackage kotlin.ranges\/n\/n\/nimport kotlin.internal.*\/n\/n**\/n
* A range of values of type `UInt`.\/n
*\/n@SinceKotlin("1.5")\/n@WasExperimental(ExperimentalUnsignedTypes::class)\/npublic class UIntRange(start:
UInt, endInclusive: UInt) : UIntProgression(start, endInclusive, 1), ClosedRange<UInt> {\/n override val start:
UInt get() = first\/n override val endInclusive: UInt get() = last\/n\/n override fun contains(value: UInt): Boolean =

```

```

first <= value && value <= last\n\n  /**\n   * Checks if the range is empty.\n   *\n   * The range is empty if its
start value is greater than the end value.\n   */\n  override fun isEmpty(): Boolean = first > last\n\n  override fun
equals(other: Any?): Boolean =\n    other is UIntRange && (isEmpty() && other.isEmpty()) ||\n    first ==
other.first && last == other.last\n\n  override fun hashCode(): Int =\n    if (isEmpty()) -1 else (31 * first.toInt()
+ last.toInt())\n\n  override fun toString(): String = "$first..$last"\n\n  companion object {\n
    /** An empty range of values of type UInt. */\n    public val EMPTY: UIntRange =
UIntRange(UInt.MAX_VALUE, UInt.MIN_VALUE)\n  }\n\n  /**\n   * A progression of values of type `UInt`.\n
*/\n  @SinceKotlin("1.5")\n  @WasExperimental(ExperimentalUnsignedTypes::class)\n  public open class
UIntProgression\n\n  internal constructor(\n    start: UInt,\n    endInclusive: UInt,\n    step: Int\n  ) : Iterable<UInt> {\n
    init {\n      if (step == 0.toInt()) throw kotlin.IllegalArgumentException("Step must be non-zero.")\n      if (step
== Int.MIN_VALUE) throw kotlin.IllegalArgumentException("Step must be greater than Int.MIN_VALUE to
avoid overflow on negation.")\n    }\n\n    /**\n     * The first element in the progression.\n     */\n    public val first:
UInt = start\n\n    /**\n     * The last element in the progression.\n     */\n    public val last: UInt =
getProgressionLastElement(start, endInclusive, step)\n\n    /**\n     * The step of the progression.\n     */\n    public
val step:
Int = step\n\n    final override fun iterator(): Iterator<UInt> = UIntProgressionIterator(first, last, step)\n\n    /**\n
     * Checks if the progression is empty.\n     *\n     * Progression with a positive step is empty if its first element is
greater than the last element.\n     * Progression with a negative step is empty if its first element is less than the last
element.\n     */\n    public open fun isEmpty(): Boolean = if (step > 0) first > last else first < last\n\n    override fun
equals(other: Any?): Boolean =\n    other is UIntProgression && (isEmpty() && other.isEmpty()) ||\n    first == other.first && last == other.last && step == other.step\n\n    override fun hashCode(): Int =\n    if
(isEmpty()) -1 else (31 * (31 * first.toInt() + last.toInt()) + step.toInt())\n\n    override fun toString(): String = if (step
> 0) "$first..$last step $step" else "$first downTo $last step ${-step}"\n\n    companion object {\n      /**\n       *
Creates UIntProgression
within the specified bounds of a closed range.\n      *\n      * The progression starts with the [rangeStart] value and goes
toward the [rangeEnd] value not excluding it, with the specified [step].\n      *\n      * In order to go backwards the [step]
must be negative.\n      */\n      * [step] must be greater than `Int.MIN_VALUE` and not equal to zero.\n      */\n      *\n      public fun fromClosedRange(rangeStart: UInt, rangeEnd: UInt, step: Int): UIntProgression =
UIntProgression(rangeStart, rangeEnd, step)\n    }\n\n    /**\n     * An iterator over a progression of values of type
`UInt`.\n     */\n    @property step the number by which the value is incremented on each step.\n\n    /**\n     * @SinceKotlin("1.3")\n     * @Suppress("DEPRECATION_ERROR")\n     * private class UIntProgressionIterator(first:
UInt, last: UInt, step: Int) : UIntIterator() {\n      private val finalElement = last\n      private var hasNext: Boolean = if
(step > 0) first <= last else first >= last\n      private val step = step.toInt() // use
2-complement math for negative steps\n      private var next = if (hasNext) first else finalElement\n\n      override fun
hasNext(): Boolean = hasNext\n\n      override fun nextUInt(): UInt {\n        val value = next\n        if (value ==
finalElement) {\n          if (!hasNext) throw kotlin.NoSuchElementException()\n          hasNext = false\n        }\n        else {\n          next += step\n        }\n        return value\n      }\n    }\n\n    /**\n     * Copyright 2010-2022 JetBrains s.r.o.
and Kotlin Programming Language contributors.\n     * Use of this source code is governed by the Apache 2.0 license
that can be found in the license/LICENSE.txt file.\n     */\n    // Auto-generated file. DO NOT EDIT!\n\n    package
kotlin.collections\n\n    /** An iterator over a sequence of values of type `UByte`. */\n    @Deprecated("This class is not
going to be stabilized and is to be removed soon.", level =
DeprecationLevel.ERROR)\n    @SinceKotlin("1.3")\n    public abstract class UByteIterator : Iterator<UByte> {\n
    final override
fun next() = nextUByte()\n\n    /** Returns the next value in the sequence without boxing. */\n    public abstract fun
nextUByte(): UByte\n  }\n\n    /** An iterator over a sequence of values of type `UShort`. */\n    @Deprecated("This class
is not going to be stabilized and is to be removed soon.", level =
DeprecationLevel.ERROR)\n    @SinceKotlin("1.3")\n    public abstract class UShortIterator : Iterator<UShort> {\n
    final override fun next() = nextUShort()\n\n    /** Returns the next value in the sequence without boxing. */\n

```

```

public abstract fun nextUShort(): UShort\n}\n\n** An iterator over a sequence of values of type `UInt`.
*\n@Deprecated("This class is not going to be stabilized and is to be removed soon.", level =
DeprecationLevel.ERROR)\n@SinceKotlin("1.3")\npublic abstract class UIntIterator : Iterator<UInt> {\n    final
override fun next() = nextUInt()\n\n    /** Returns the next value in the sequence without boxing. */\n    public
abstract fun nextUInt(): UInt\n}\n\n** An
iterator over a sequence of values of type `ULong`. *\n@Deprecated("This class is not going to be stabilized and
is to be removed soon.", level = DeprecationLevel.ERROR)\n@SinceKotlin("1.3")\npublic abstract class
ULongIterator : Iterator<ULong> {\n    final override fun next() = nextULong()\n\n    /** Returns the next value in
the sequence without boxing. */\n    public abstract fun nextULong(): ULong\n}\n\n", /*\n * Copyright 2010-2022
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n *\n\n// Auto-generated file. DO NOT
EDIT!\n\npackage kotlin.ranges\n\n\nimport kotlin.internal.*\n\n**\n * A range of values of type `ULong`. \n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic class
ULongRange(start: ULong, endInclusive: ULong) : ULongProgression(start, endInclusive, 1),
ClosedRange<ULong> {\n    override val start:
ULong get() = first\n    override val endInclusive: ULong get() = last\n\n    override fun contains(value: ULong):
Boolean = first <= value && value <= last\n\n    /** \n    * Checks if the range is empty.\n    \n    * The range is
empty if its start value is greater than the end value.\n    */\n    override fun isEmpty(): Boolean = first > last\n\n
override fun equals(other: Any?): Boolean =\n        other is ULongRange && (isEmpty() && other.isEmpty()) ||\n
        first == other.first && last == other.last\n\n    override fun hashCode(): Int =\n        if (isEmpty()) -1 else (31
* (first xor (first shr 32)).toInt() + (last xor (last shr 32)).toInt())\n\n    override fun toString(): String =
"\$first..\$last"\n\n    companion object {\n        /** An empty range of values of type ULong. */\n        public val
EMPTY: ULongRange = ULongRange(ULong.MAX_VALUE, ULong.MIN_VALUE)\n    }\n}\n\n**\n * A
progression of values of type `ULong`. \n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic
open class ULongProgression\ninternal constructor(\n    start: ULong,\n    endInclusive: ULong,\n    step: Long\n) :
Iterable<ULong> {\n    init {\n        if (step == 0.toLong()) throw kotlin.IllegalArgumentException("Step must be
non-zero.")\n        if (step == Long.MIN_VALUE) throw kotlin.IllegalArgumentException("Step must be greater
than Long.MIN_VALUE to avoid overflow on negation.")\n    }\n\n    /**\n    * The first element in the
progression.\n    */\n    public val first: ULong = start\n\n    /**\n    * The last element in the progression.\n    */\n
public val last: ULong = getProgressionLastElement(start, endInclusive, step)\n\n    /**\n    * The step of the
progression.\n    */\n    public val step: Long = step\n\n    final override fun iterator(): Iterator<ULong> =
ULongProgressionIterator(first, last, step)\n\n    /** \n    * Checks if the progression is empty.\n    \n    *
Progression with a positive
step is empty if its first element is greater than the last element.\n    * Progression with a negative step is empty if
its first element is less than the last element.\n    */\n    public open fun isEmpty(): Boolean = if (step > 0) first > last
else first < last\n\n    override fun equals(other: Any?): Boolean =\n        other is ULongProgression && (isEmpty()
&& other.isEmpty()) ||\n        first == other.first && last == other.last && step == other.step\n\n    override fun
hashCode(): Int =\n        if (isEmpty()) -1 else (31 * (31 * (first xor (first shr 32)).toInt() + (last xor (last shr
32)).toInt()) + (step xor (step ushr 32)).toInt())\n\n    override fun toString(): String = if (step > 0) "\$first..\$last
step\n\n    companion object {\n        /**\n        * Creates
ULongProgression within the specified bounds of a closed range.\n        * The progression starts with the
[rangeStart] value and goes toward the
[rangeEnd] value not excluding it, with the specified [step].\n        * In order to go backwards the [step] must be
negative.\n        *\n        * [step] must be greater than `Long.MIN_VALUE` and not equal to zero.\n        */\n
public fun fromClosedRange(rangeStart: ULong, rangeEnd: ULong, step: Long): ULongProgression =
ULongProgression(rangeStart, rangeEnd, step)\n    }\n}\n\n**\n * An iterator over a progression of values of type
`ULong`. \n * @property step the number by which the value is incremented on each step.\n

```



```

*\n@SinceKotlin("1.3")\n@Suppress("DEPRECATION_ERROR")\nprivate class
ULongProgressionIterator(first: ULong, last: ULong, step: Long) : ULongIterator() {\n  private val finalElement =
last\n  private var hasNext: Boolean = if (step > 0) first <= last else first >= last\n  private val step =
step.toULong() // use 2-complement math for negative steps\n  private var next = if (hasNext) first else
finalElement\n\n  override fun hasNext(): Boolean
= hasNext\n\n  override fun nextULong(): ULong {\n    val value = next\n    if (value == finalElement) {\n
if (!hasNext) throw kotlin.NoSuchElementException()\n      hasNext = false\n    } else {\n      next +=
step\n    }\n    return value\n  }\n}\n\n"/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin.math\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun min(a: UInt, b: UInt): UInt {\n  return minOf(a, b)\n}\n"/*\n * Returns the smaller of two
values.\n */\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun min(a: ULong, b: ULong): ULong {\n  return minOf(a,
b)\n}\n"/*\n * Returns the greater of two values.\n */\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun max(a: UInt, b: UInt): UInt {\n  return maxOf(a, b)\n}\n"/*\n * Returns the greater of two
values.\n */\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun max(a: ULong, b: ULong): ULong {\n  return maxOf(a, b)\n}\n"/*\n * Copyright 2010-2021
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmName("UNumbersKt")\npackage kotlin\n/**\n * Counts the number of set bits in the
binary representation of this [UInt] number.\n */\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UInt.countOneBits():
Int = toInt().countOneBits()\n"/*\n * Counts the number of consecutive most significant bits that are zero in the
binary representation of this [UInt] number.\n */\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UInt.countLeadingZeroBits(): Int =
toInt().countLeadingZeroBits()\n"/*\n * Counts the number of consecutive least significant bits that are zero in the
binary representation of this [UInt] number.\n */\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UInt.countTrailingZeroBits(): Int =
toInt().countTrailingZeroBits()\n"/*\n * Returns a number having a single bit set in the position of the most
significant set bit of this [UInt] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UInt.takeHighestOneBit(): UInt =
toInt().takeHighestOneBit().toUInt()\n"/*\n * Returns a number having a single bit set in the position of the least
significant set bit of this [UInt] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UInt.takeLowestOneBit(): UInt =
toInt().takeLowestOneBit().toUInt()\n"/*\n * Rotates the binary representation of this [UInt] number left by the
specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as
the least significant bits on the right side.\n * Rotating the number left by a negative bit count is the same as
rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n * Rotating by a
multiple of [UInt.SIZE_BITS]

```

```

(32) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 32)`\n
*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class,
ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UInt.rotateLeft(bitCount: Int):
UInt = toInt().rotateLeft(bitCount).toUInt()\n\n/**\n * Rotates the binary representation of this [UInt] number
right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter
the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is
the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n *
Rotating by a multiple of [UInt.SIZE_BITS] (32) returns the same number, or more generally\n *
`number.rotateRight(n) == number.rotateRight(n % 32)`\n
*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class,
ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic
inline fun UInt.rotateRight(bitCount: Int): UInt = toInt().rotateRight(bitCount).toUInt()\n\n/**\n * Counts the
number of set bits in the binary representation of this [ULong] number.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULong.countOneBits(): Int =
toLong().countOneBits()\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the
binary representation of this [ULong] number.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULong.countLeadingZeroBits(): Int
= toLong().countLeadingZeroBits()\n\n/**\n * Counts the number of consecutive least significant bits that are zero
in the binary representation of this [ULong] number.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULong.countTrailingZeroBits(): Int
= toLong().countTrailingZeroBits()\n\n/**\n * Returns a number having a single bit set in the position of the most
significant set bit of this [ULong] number,\n * or zero, if this number is zero.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULong.takeHighestOneBit(): ULong
= toLong().takeHighestOneBit().toULong()\n\n/**\n * Returns a number having a single bit set in the position of the
least significant set bit of this [ULong] number,\n * or zero, if this number is zero.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULong.takeLowestOneBit(): ULong
= toLong().takeLowestOneBit().toULong()\n\n/**\n * Rotates the binary representation
of this [ULong] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out
from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left
by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) ==
number.rotateRight(n)`\n *\n * Rotating by a multiple of [ULong.SIZE_BITS] (64) returns the same number, or
more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 64)`\n
*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class,
ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULong.rotateLeft(bitCount:
Int): ULong = toLong().rotateLeft(bitCount).toULong()\n\n/**\n * Rotates the binary representation of this [ULong]
number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side
reenter the number as the most significant bits
on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the
negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of
[ULong.SIZE_BITS] (64) returns the same number, or more generally\n * `number.rotateRight(n) ==
number.rotateRight(n % 64)`\n *\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class,
ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULong.rotateRight(bitCount:
Int): ULong = toLong().rotateRight(bitCount).toULong()\n\n/**\n * Counts the number of set bits in the binary

```

representation of this [UByte] number.\n

```
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,  
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.countOneBits(): Int =  
toUInt().countOneBits()\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the  
binary representation of  
this [UByte] number.\n */\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,  
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.countLeadingZeroBits(): Int =  
toByte().countLeadingZeroBits()\n\n/**\n * Counts the number of consecutive least significant bits that are zero in  
the binary representation of this [UByte] number.\n */
```

```
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,  
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.countTrailingZeroBits(): Int =  
toByte().countTrailingZeroBits()\n\n/**\n * Returns a number having a single bit set in the position of the most  
significant set bit of this [UByte] number,\n * or zero, if this number is zero.\n */
```

```
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,  
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.takeHighestOneBit(): UByte  
= toInt().takeHighestOneBit().toUByte()\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [UByte] number,\n * or zero, if this number is zero.\n */
```

```
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,  
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.takeLowestOneBit(): UByte =  
toInt().takeLowestOneBit().toUByte()\n\n/**\n * Rotates the binary representation of this [UByte] number left by  
the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the  
number as the least significant bits on the right side.\n * Rotating the number left by a negative bit count is the  
same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n * Rotating by a multiple of [UByte.SIZE_BITS] (8) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 8)`\n */
```

```
*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class,  
ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.rotateLeft(bitCount:  
Int): UByte = toByte().rotateLeft(bitCount).toUByte()\n\n/**\n * Rotates the binary representation of this [UByte]  
number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side  
reenter the number as the most significant bits on the left side.\n * Rotating the number right by a negative bit  
count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n * Rotating by a multiple of [UByte.SIZE_BITS] (8) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 8)`\n */
```

```
*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class,  
ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.rotateRight(bitCount:  
Int): UByte = toByte().rotateRight(bitCount).toUByte()\n\n/**\n * Counts the number of set bits in the binary representation of this [UShort] number.\n */
```

```
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,  
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.countOneBits(): Int =  
toUInt().countOneBits()\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the  
binary representation of this [UShort] number.\n */
```

```
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,  
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.countLeadingZeroBits(): Int  
= toShort().countLeadingZeroBits()\n\n/**\n * Counts the number of consecutive least significant bits that are zero  
in the binary representation of this [UShort] number.\n */
```

```
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,  
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.countTrailingZeroBits():
```

```

Int = toShort().countTrailingZeroBits()\n\n**\n * Returns a number having a single bit set in the position of the
most significant set bit of this [UShort] number,\n * or zero, if this number is zero.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.takeHighestOneBit(): UShort
= toInt().takeHighestOneBit().toUShort()\n\n**\n * Returns a number having a single bit set in the position of the
least significant set bit of this [UShort] number,\n * or zero, if this number is zero.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.takeLowestOneBit(): UShort
= toInt().takeLowestOneBit().toUShort()\n\n**\n * Rotates the binary representation of this [UShort] number left
by the specified [bitCount] number of bits.\n * The most significant bits pushed out
from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left
by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) ==
number.rotateRight(n)`\n *\n * Rotating by a multiple of [UShort.SIZE_BITS] (16) returns the same number, or
more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 16)`\n
*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class,
ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.rotateLeft(bitCount:
Int): UShort = toShort().rotateLeft(bitCount).toUShort()\n\n**\n * Rotates the binary representation of this
[UShort] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the
right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a
negative bit count is the same as rotating it left by the
negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of
[UShort.SIZE_BITS] (16) returns the same number, or more generally\n * `number.rotateRight(n) ==
number.rotateRight(n % 16)`\n *\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class,
ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.rotateRight(bitCount:
Int): UShort = toShort().rotateRight(bitCount).toUShort()\n", "/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n *\n@package kotlin.internal\n\n// (a - b) mod c\nprivate fun
differenceModulo(a: UInt, b: UInt, c: UInt): UInt {\n    val ac = a % c\n    val bc = b % c\n    return if (ac >= bc) ac -
bc else ac - bc + c\n}\n\nprivate fun differenceModulo(a: ULong, b: ULong, c: ULong): ULong {\n    val ac = a %
c\n    val bc
= b % c\n    return if (ac >= bc) ac - bc else ac - bc + c\n}\n\n**\n * Calculates the final element of a bounded
arithmetic progression, i.e. the last element of the progression which is in the range\n * from [start] to [end] in case
of a positive [step], or from [end] to [start] in case of a negative\n * [step].\n *\n * No validation on passed
parameters is performed. The given parameters should satisfy the condition:\n *\n * - either `step > 0` and `start <=
end`,\n *\n * - or `step < 0` and `start >= end`.\n *\n * @param start first element of the progression\n * @param end
ending bound for the progression\n * @param step increment, or difference of successive elements in the
progression\n * @return the final element of the progression\n * @suppress\n
*\n@PublishedApi\n@SinceKotlin("1.3")\ninternal fun getProgressionLastElement(start: UInt, end: UInt, step:
Int): UInt = when {\n    step > 0 -> if (start >= end) end else end - differenceModulo(end, start, step.toUInt())\n
step <
0 -> if (start <= end) end else end + differenceModulo(start, end, (-step).toUInt())\n    else -> throw
kotlin.IllegalArgumentException("Step is zero.")\n}\n\n**\n * Calculates the final element of a bounded
arithmetic progression, i.e. the last element of the progression which is in the range\n * from [start] to [end] in case
of a positive [step], or from [end] to [start] in case of a negative\n * [step].\n *\n * No validation on passed
parameters is performed. The given parameters should satisfy the condition:\n *\n * - either `step > 0` and `start <=
end`,\n *\n * - or `step < 0` and `start >= end`.\n *\n * @param start first element of the progression\n * @param end
ending bound for the progression\n * @param step increment, or difference of successive elements in the
progression\n * @return the final element of the progression\n * @suppress\n

```

```

*^@PublishedApi^@SinceKotlin("1.3")^internal fun getProgressionLastElement(start: ULong, end: ULong,
step: Long): ULong = when {
    step > 0 -> if (start >= end) end else end - differenceModulo(end, start, step.toULong())
    step < 0 -> if (start <=
end) end else end + differenceModulo(start, end, (-step).toULong())
    else -> throw
kotlin.IllegalArgumentException("Step is zero.")
}

/*
 * Copyright 2010-2021 JetBrains s.r.o. and Kotlin
Programming Language contributors.
 * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.
 */
@file:kotlin.jvm.JvmName("UStringsKt") // string representation
of unsigned numbers
package kotlin.text

/**
 * Returns a string representation of this [Byte] value in the
specified [radix].
 * @throws IllegalArgumentException when [radix] is not a valid radix for number to string
conversion.
 */
@SinceKotlin("1.5")
@WasExperimental(ExperimentalUnsignedTypes::class)
@kotlin.internal.InlineOnly
public inline fun UByte.toString(radix: Int): String = this.toInt().toString(radix)

/**
 * Returns
a string representation of this [Short] value in the specified [radix].
 * @throws IllegalArgumentException
when [radix] is not a valid radix for number to string conversion.
 */
@SinceKotlin("1.5")
@WasExperimental(ExperimentalUnsignedTypes::class)
@kotlin.internal.InlineOnly
public inline fun UShort.toString(radix: Int): String = this.toInt().toString(radix)

/**
 * Returns a string
representation of this [Int] value in the specified [radix].
 * @throws IllegalArgumentException when [radix] is
not a valid radix for number to string conversion.
 */
@SinceKotlin("1.5")
@WasExperimental(ExperimentalUnsignedTypes::class)
@kotlin.internal.InlineOnly
public inline fun UInt.toString(radix: Int): String = this.toLong().toString(radix)

/**
 * Returns a string
representation of this [Long] value in the specified [radix].
 * @throws IllegalArgumentException when [radix]
is not a valid radix for number to string conversion.
 */
@SinceKotlin("1.5")
@WasExperimental(ExperimentalUnsignedTypes::class)
public
fun ULong.toString(radix: Int): String = ulongToString(this.toLong(), checkRadix(radix))

/**
 * Parses the
string as a signed [UByte] number and returns the result.
 * @throws NumberFormatException if the string is not a
valid representation of a number.
 */
@SinceKotlin("1.5")
@WasExperimental(ExperimentalUnsignedTypes::class)
public fun String.toUByte():
UByte = toUByteOrNull() ?: numberFormatException(this)

/**
 * Parses the string as a signed [UByte] number and
returns the result.
 * @throws NumberFormatException if the string is not a
valid representation of a number.
 * @throws IllegalArgumentException when [radix] is not a
valid radix for string to number conversion.
 */
@SinceKotlin("1.5")
@WasExperimental(ExperimentalUnsignedTypes::class)
public fun
String.toUByte(radix: Int): UByte = toUByteOrNull(radix) ?: numberFormatException(this)

/**
 * Parses the
string as a [UShort] number and
returns the result.
 * @throws NumberFormatException if the string is not a
valid representation of a number.
 */
@SinceKotlin("1.5")
@WasExperimental(ExperimentalUnsignedTypes::class)
public fun String.toUShort():
UShort = toUShortOrNull() ?: numberFormatException(this)

/**
 * Parses the string as a [UShort] number and
returns the result.
 * @throws NumberFormatException if the string is not a
valid representation of a number.
 * @throws IllegalArgumentException when [radix] is not a
valid radix for string to number conversion.
 */
@SinceKotlin("1.5")
@WasExperimental(ExperimentalUnsignedTypes::class)
public fun
String.toUShort(radix: Int): UShort = toUShortOrNull(radix) ?: numberFormatException(this)

/**
 * Parses the
string as an [UInt] number and returns the result.
 * @throws NumberFormatException if the string is not a
valid
representation of a number.
 */
@SinceKotlin("1.5")
@WasExperimental(ExperimentalUnsignedTypes::class)
public fun String.toUInt():
UInt
= toUIntOrNull() ?: numberFormatException(this)

/**
 * Parses the string as an [UInt] number and returns the
result.
 * @throws NumberFormatException if the string is not a
valid representation of a number.
 * @throws
IllegalArgumentException when [radix] is not a valid radix for string to number conversion.
 */
@SinceKotlin("1.5")
@WasExperimental(ExperimentalUnsignedTypes::class)
public fun

```



```

conversion.\n *^\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
String.toULongOrNull(radix: Int): ULong? {\n    checkRadix(radix)\n\n    val length = this.length\n    if (length ==
0) return null\n\n    val limit: ULong = ULong.MAX_VALUE\n    val start: Int\n    val firstChar = this[0]\n    if
(firstChar < '0') {\n        if (length == 1 || firstChar != '+') return null\n        start = 1\n    } else {\n        start = 0\n
}\n\n    val limitForMaxRadix = 512409557603043100uL // limit / 36\n    var limitBeforeMul =
limitForMaxRadix\n    val uradix = radix.toULong()\n    var result = 0uL\n    for (i in start until length) {\n        val
digit = digitOf(this[i], radix)\n\n        if (digit < 0) return null\n\n        if (result > limitBeforeMul) {\n            if (limitBeforeMul == limitForMaxRadix) {\n                limitBeforeMul =
limit / uradix\n\n                if (result > limitBeforeMul) {\n                    return null\n                }\n            } else {\n                return null\n            }\n        }\n        result *= uradix\n        val beforeAdding = result\n        result +=
digit.toUInt()\n        if (result < beforeAdding) return null // overflow has happened\n    }\n    return
result\n}\n", "/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use
of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n *^\n@file:Suppress("INVISIBLE_REFERENCE", "INVISIBLE_MEMBER")\npackage kotlin\nimport
kotlin.annotation.AnnotationTarget.*\nimport kotlin.internal.RequireKotlin\nimport
kotlin.internal.RequireKotlinVersionKind\n\n/**\n * Marks the API that is dependent on the
experimental unsigned types, including those types themselves.\n * Usages of such API will be reported as
warnings unless an explicit opt-in with\n * the [OptIn] annotation, e.g.
`@OptIn(ExperimentalUnsignedTypes::class)`\n * or with the `-opt-in=kotlin.ExperimentalUnsignedTypes`
compiler option is given.\n * It's recommended to propagate the experimental status to the API that depends on
unsigned types by annotating it with this annotation.\n */\n@RequiresOptIn(level =
RequiresOptIn.Level.WARNING)\n@MustBeDocumented\n@Target(CLASS, ANNOTATION_CLASS,
PROPERTY, FIELD, LOCAL_VARIABLE, VALUE_PARAMETER, CONSTRUCTOR, FUNCTION,
PROPERTY_GETTER, PROPERTY_SETTER,
TYPEALIAS)\n@Retention(AnnotationRetention.BINARY)\n@RequireKotlin("1.2.50", versionKind =
RequireKotlinVersionKind.COMPILER_VERSION)\npublic annotation class ExperimentalUnsignedTypes\n", "/*\n
* Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code
is governed by
the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("MathKt")\n\npackage
kotlin.math\n\n\n// constants, can't use them from nativeMath as they are not constants there\n\n/** Ratio of the
circumference of a circle to its diameter, approximately 3.14159. */\n@SinceKotlin("1.2")\npublic const val PI:
Double = 3.141592653589793\n\n/** Base of the natural logarithms, approximately 2.71828.
*/\n@SinceKotlin("1.2")\npublic const val E: Double = 2.718281828459045\n\n// region =====
Double Math =====\n\n/** Computes the sine of the angle [x]
given in radians.\n * Special cases:\n * - `sin(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin("1.2")\npublic
expect fun sin(x: Double): Double\n\n/** Computes the cosine of the angle [x] given in radians.\n * Special
cases:\n * - `cos(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin("1.2")\npublic expect
fun cos(x: Double): Double\n\n/** Computes the tangent of the angle [x] given in radians.\n * Special cases:\n
* - `tan(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin("1.2")\npublic expect fun tan(x: Double): Double\n\n/**
Computes the arc sine of the value [x];\n * the returned value is an angle in the range from `-PI/2` to `PI/2`
radians.\n * Special cases:\n * - `asin(x)` is `NaN`, when `abs(x) > 1` or x is `NaN`\n
*/\n@SinceKotlin("1.2")\npublic expect fun asin(x: Double): Double\n\n/** Computes the arc cosine of the
value [x];\n * the returned value is an angle in the range from `0.0` to `PI` radians.\n * Special cases:\n
* - `acos(x)` is `NaN`, when `abs(x) > 1` or x is `NaN`\n */\n@SinceKotlin("1.2")\npublic expect fun acos(x: Double):
Double\n\n/** Computes the arc tangent of the value [x];\n * the returned value is an angle in the range from `-
PI/2` to `PI/2` radians.\n * Special cases:\n * - `atan(NaN)` is `NaN`\n */\n@SinceKotlin("1.2")\npublic

```

expect fun atan(x: Double): Double\n\n/\*\*\n \* Returns the angle `theta` of the polar coordinates `(r, theta)` that correspond\n \* to the rectangular coordinates `(x, y)` by computing the arc tangent of the value  $[y] / [x]$ ;\n \* the returned value is an angle in the range from  $-\text{PI}$  to  $\text{PI}$  radians.\n \* Special cases:\n \* -  $\text{atan2}(0.0, 0.0)$  is  $0.0$ \n \* -  $\text{atan2}(0.0, x)$  is  $0.0$  for  $x > 0$  and  $\text{PI}$  for  $x < 0$ \n \* -  $\text{atan2}(-0.0, x)$  is  $-0.0$  for  $x > 0$  and  $-\text{PI}$  for  $x < 0$ \n \* -  $\text{atan2}(y, +\text{Inf})$  is  $0.0$  for  $0 < y < +\text{Inf}$  and  $-0.0$  for  $-\text{Inf} < y < 0$ \n \* -  $\text{atan2}(y, -\text{Inf})$  is  $\text{PI}$  for  $0 < y < +\text{Inf}$  and  $-\text{PI}$  for  $-\text{Inf} < y < 0$ \n \* -  $\text{atan2}(y, 0.0)$  is  $\text{PI}/2$  for  $y > 0$  and  $-\text{PI}/2$  for  $y < 0$ \n \* -  $\text{atan2}(+\text{Inf}, x)$  is  $\text{PI}/2$  for finite  $x$ \n \* -  $\text{atan2}(-\text{Inf}, x)$  is  $-\text{PI}/2$  for finite  $x$ \n \* -  $\text{atan2}(\text{NaN}, x)$  and  $\text{atan2}(y, \text{NaN})$  is  $\text{NaN}$ \n \*/\n\npublic expect fun atan2(y: Double, x: Double): Double\n\n/\*\*\n \* Computes the hyperbolic sine of the value  $[x]$ .\n \* Special cases:\n \* -  $\text{sinh}(\text{NaN})$  is  $\text{NaN}$ \n \* -  $\text{sinh}(+\text{Inf})$  is  $+\text{Inf}$ \n \* -  $\text{sinh}(-\text{Inf})$  is  $-\text{Inf}$ \n \*/\n\npublic expect fun sinh(x: Double): Double\n\n/\*\*\n \* Computes the hyperbolic cosine of the value  $[x]$ .\n \* Special cases:\n \* -  $\text{cosh}(\text{NaN})$  is  $\text{NaN}$ \n \* -  $\text{cosh}(+\text{Inf}-\text{Inf})$  is  $+\text{Inf}$ \n \*/\n\npublic expect fun cosh(x: Double): Double\n\n/\*\*\n \* Computes the hyperbolic tangent of the value  $[x]$ .\n \* Special cases:\n \* -  $\text{tanh}(\text{NaN})$  is  $\text{NaN}$ \n \* -  $\text{tanh}(+\text{Inf})$  is  $1.0$ \n \* -  $\text{tanh}(-\text{Inf})$  is  $-1.0$ \n \*/\n\npublic expect fun tanh(x: Double): Double\n\n/\*\*\n \* Computes the inverse hyperbolic sine of the value  $[x]$ .\n \* The returned value is  $y$  such that  $\text{sinh}(y) == x$ .\n \* Special cases:\n \* -  $\text{asinh}(\text{NaN})$  is  $\text{NaN}$ \n \* -  $\text{asinh}(+\text{Inf})$  is  $+\text{Inf}$ \n \* -  $\text{asinh}(-\text{Inf})$  is  $-\text{Inf}$ \n \*/\n\npublic expect fun asinh(x: Double): Double\n\n/\*\*\n \* Computes the inverse hyperbolic cosine of the value  $[x]$ .\n \* The returned value is positive  $y$  such that  $\text{cosh}(y) == x$ .\n \* Special cases:\n \* -  $\text{acosh}(\text{NaN})$  is  $\text{NaN}$ \n \* -  $\text{acosh}(x)$  is  $\text{NaN}$  when  $x < 1$ \n \* -  $\text{acosh}(+\text{Inf})$  is  $+\text{Inf}$ \n \*/\n\npublic expect fun acosh(x: Double): Double\n\n/\*\*\n \* Computes the inverse hyperbolic tangent of the value  $[x]$ .\n \* The returned value is  $y$  such that  $\text{tanh}(y) == x$ .\n \* Special cases:\n \* -  $\text{atanh}(\text{NaN})$  is  $\text{NaN}$ \n \* -  $\text{atanh}(x)$  is  $\text{NaN}$  when  $x > 1$  or  $x < -1$ \n \* -  $\text{atanh}(1.0)$  is  $+\text{Inf}$ \n \* -  $\text{atanh}(-1.0)$  is  $-\text{Inf}$ \n \*/\n\npublic expect fun atanh(x: Double): Double\n\n/\*\*\n \* Computes  $\sqrt{x^2 + y^2}$  without intermediate overflow or underflow.\n \* Special cases:\n \* - returns  $+\text{Inf}$  if any of arguments is infinite\n \* - returns  $\text{NaN}$  if any of arguments is  $\text{NaN}$  and the other is not infinite\n \*/\n\npublic expect fun hypot(x: Double, y: Double): Double\n\n/\*\*\n \* Computes the positive square root of the value  $[x]$ .\n \* Special cases:\n \* -  $\text{sqrt}(x)$  is  $\text{NaN}$  when  $x < 0$  or  $x$  is  $\text{NaN}$ \n \*/\n\npublic expect fun sqrt(x: Double): Double\n\n/\*\*\n \* Computes Euler's number  $e$  raised to the power of the value  $[x]$ .\n \* Special cases:\n \* -  $\text{exp}(\text{NaN})$  is  $\text{NaN}$ \n \* -  $\text{exp}(+\text{Inf})$  is  $+\text{Inf}$ \n \* -  $\text{exp}(-\text{Inf})$  is  $0.0$ \n \*/\n\npublic expect fun exp(x: Double): Double\n\n/\*\*\n \* Computes  $\text{exp}(x) - 1$ .\n \* This function can be implemented to produce more precise result for  $[x]$  near zero.\n \* Special cases:\n \* -  $\text{expm1}(\text{NaN})$  is  $\text{NaN}$ \n \* -  $\text{expm1}(+\text{Inf})$  is  $+\text{Inf}$ \n \* -  $\text{expm1}(-\text{Inf})$  is  $-1.0$ \n \* @see [exp] function.\n \*/\n\npublic expect fun expm1(x: Double): Double\n\n/\*\*\n \* Computes the logarithm of the value  $[x]$  to the given [base].\n \* Special cases:\n \* -  $\text{log}(x, b)$  is  $\text{NaN}$  if either  $x$  or  $b$  are  $\text{NaN}$ \n \* -  $\text{log}(x, b)$  is  $\text{NaN}$  when  $x < 0$  or  $b \leq 0$  or  $b == 1.0$ \n \* -  $\text{log}(+\text{Inf}, +\text{Inf})$  is  $\text{NaN}$ \n \* -  $\text{log}(+\text{Inf}, b)$  is  $+\text{Inf}$  for  $b > 1$  and  $-\text{Inf}$  for  $b < 1$ \n \* -  $\text{log}(0.0, b)$  is  $-\text{Inf}$  for  $b > 1$  and  $+\text{Inf}$  for  $b > 1$ \n \* See also logarithm functions for common fixed bases: [ln], [log10] and [log2].\n \*/\n\npublic expect fun log(x: Double, base: Double): Double\n\n/\*\*\n \* Computes the natural logarithm (base 'E') of the value  $[x]$ .\n \* Special cases:\n \* -  $\text{ln}(\text{NaN})$  is  $\text{NaN}$ \n \* -  $\text{ln}(x)$  is  $\text{NaN}$  when  $x < 0.0$ \n \* -  $\text{ln}(+\text{Inf})$  is  $+\text{Inf}$ \n \* -  $\text{ln}(0.0)$  is  $-\text{Inf}$ \n \*/\n\npublic expect fun ln(x: Double): Double\n\n/\*\*\n \* Computes the common logarithm (base 10) of the value  $[x]$ .\n \* @see [ln] function for special cases.\n \*/\n\npublic expect fun log10(x: Double): Double\n\n/\*\*\n \* Computes the binary logarithm (base 2) of the value  $[x]$ .\n \* @see [ln] function for special cases.\n \*/\n\npublic expect fun log2(x: Double): Double\n\n/\*\*\n \* Computes  $\text{ln}(x + 1)$ .\n \* This function can be implemented to produce more precise result for  $[x]$  near zero.\n \* Special cases:\n \* -  $\text{ln1p}(\text{NaN})$  is  $\text{NaN}$ \n \* -  $\text{ln1p}(x)$  is  $\text{NaN}$  where  $x < -1.0$ \n \* -  $\text{ln1p}(-1.0)$  is  $-\text{Inf}$ \n \* -  $\text{ln1p}(+\text{Inf})$  is  $+\text{Inf}$ \n \* @see [ln] function\n \* @see



[`expm1`] function\n \*  
`@SinceKotlin("1.2")`\npublic expect fun `ln1p(x: Double): Double`\n\n \* Rounds the given value [x] to an integer towards positive infinity.\n\n \* @return the smallest double value that is greater than or equal to the given value [x] and is a mathematical integer.\n\n \* Special cases:\n \* - `ceil(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n \*  
`@SinceKotlin("1.2")`\npublic expect fun `ceil(x: Double): Double`\n\n \* Rounds the given value [x] to an integer towards negative infinity.\n\n \* @return the largest double value that is smaller than or equal to the given value [x] and is a mathematical integer.\n\n \* Special cases:\n \* - `floor(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n \*  
`@SinceKotlin("1.2")`\npublic expect fun `floor(x: Double): Double`\n\n \* Rounds the given value [x] to an integer towards zero.\n\n \* @return the value [x] having its fractional part truncated.\n\n \* Special cases:\n \* - `truncate(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n \*  
`@SinceKotlin("1.2")`\npublic expect fun `truncate(x: Double): Double`\n\n \* Rounds the given value [x] towards the closest integer with ties rounded towards even integer.\n\n \* Special cases:\n \* - `round(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n \*  
`@SinceKotlin("1.2")`\npublic expect fun `round(x: Double): Double`\n\n \* Returns the absolute value of the given value [x].\n\n \* Special cases:\n \* - `abs(NaN)` is `NaN`\n\n \* @see `absoluteValue` extension property for [Double]\n \*  
`@SinceKotlin("1.2")`\npublic expect fun `abs(x: Double): Double`\n\n \* Returns the sign of the given value [x]:\n \* - `-1.0` if the value is negative,\n \* - zero if the value is zero,\n \* - `1.0` if the value is positive\n\n \* Special case:\n \* - `sign(NaN)` is `NaN`\n \*  
`@SinceKotlin("1.2")`\npublic expect fun `sign(x: Double): Double`\n\n \* Returns the smaller of two values.\n\n \* If either value is `NaN`, then the result is `NaN`.\n \*  
`@SinceKotlin("1.2")`\npublic expect fun `min(a: Double, b: Double): Double`\n\n \* Returns the greater of two values.\n\n \* If either value is `NaN`, then the result is `NaN`.\n \*  
`@SinceKotlin("1.2")`\npublic expect fun `max(a: Double, b: Double): Double`\n\n// extensions\n\n \* Raises this value to the power [x].\n\n \* Special cases:\n \* - `b.pow(0.0)` is `1.0`\n \* - `b.pow(1.0) == b`\n \* - `b.pow(NaN)` is `NaN`\n \* - `NaN.pow(x)` is `NaN` for `x != 0.0`\n \* - `b.pow(Inf)` is `NaN` for `abs(b) == 1.0`\n \* - `b.pow(x)` is `NaN` for `b < 0` and `x` is finite and not an integer\n \*  
`@SinceKotlin("1.2")`\npublic expect fun `Double.pow(x: Double): Double`\n\n \* Raises this value to the integer power [n].\n\n \* See the other overload of [pow] for details.\n \*  
`@SinceKotlin("1.2")`\npublic expect fun `Double.pow(n: Int): Double`\n\n \* Returns the absolute value of this value.\n\n \* Special cases:\n \* - `NaN.absoluteValue` is `NaN`\n\n \* @see `abs` function\n \*  
`@SinceKotlin("1.2")`\npublic expect val `Double.absoluteValue: Double`\n\n \* Returns the sign of this value:\n \* - `-1.0` if the value is negative,\n \* - zero if the value is zero,\n \* - `1.0` if the value is positive\n\n \* Special case:\n \* - `NaN.sign` is `NaN`\n \*  
`@SinceKotlin("1.2")`\npublic expect val `Double.sign: Double`\n\n \* Returns this value with the sign bit same as of the [sign] value.\n\n \* If [sign] is `NaN` the sign of the result is undefined.\n \*  
`@SinceKotlin("1.2")`\npublic expect fun `Double.withSign(sign: Double): Double`\n\n \* Returns this value with the sign bit same as of the [sign] value.\n \*  
`@SinceKotlin("1.2")`\npublic expect fun `Double.withSign(sign: Int): Double`\n\n \* Returns the ulp (unit in the last place) of this value.\n\n \* An ulp is a positive distance between this value and the next nearest [Double] value larger in magnitude.\n\n \* Special Cases:\n \* - `NaN.ulp` is `NaN`\n \* - `x.ulp` is `+Inf` when `x` is `+Inf` or `-Inf`\n \* - `0.0.ulp` is `Double.MIN_VALUE`\n \*  
`@SinceKotlin("1.2")`\npublic expect val `Double.ulp: Double`\n\n \* Returns the [Double] value nearest to this value in direction of positive infinity.\n \*  
`@SinceKotlin("1.2")`\npublic expect fun `Double.nextUp(): Double`\n\n \* Returns the [Double] value nearest to this value in direction of negative infinity.\n \*  
`@SinceKotlin("1.2")`\npublic expect fun `Double.nextDown(): Double`\n\n \* Returns the [Double] value nearest to this value in direction from this value towards the value [to].\n\n \* Special cases:\n \* - `x.nextTowards(y)` is `NaN` if either `x` or `y` are `NaN`\n \* - `x.nextTowards(x) == x`\n \*  
`@SinceKotlin("1.2")`\npublic expect fun `Double.nextTowards(to: Double): Double`\n\n \* Rounds this [Double] value to the nearest integer and converts the result to [Int].\n\n \* Ties are rounded towards positive infinity.\n\n \* Special cases:\n \* - `x.roundToInt() == Int.MAX_VALUE` when `x >`



positive square root of the value [x].  
Special cases:  
`sqrt(x)` is `NaN` when `x < 0` or `x` is `NaN`

`SinceKotlin("1.2")\npublic expect fun sqrt(x: Float): Float`  
Computes Euler's number `e` raised to the power of the value [x].  
Special cases:  
`exp(NaN)` is `NaN`  
`exp(+Inf)` is `+Inf`  
`exp(-Inf)` is `0.0`

`SinceKotlin("1.2")\npublic expect fun exp(x: Float): Float`  
Computes `exp(x) - 1`.  
This function can be implemented to produce more precise result for [x] near zero.  
Special cases:  
`expm1(NaN)` is `NaN`  
`expm1(+Inf)` is `+Inf`  
`expm1(-Inf)` is `-1.0`  
@see [exp] function.

`SinceKotlin("1.2")\npublic expect fun expm1(x: Float): Float`  
Computes the logarithm of the value [x] to the given [base].  
Special cases:  
`log(x, b)` is `NaN` if either `x` or `b` are `NaN`  
`log(x, b)` is `NaN` when `x < 0` or `b <= 0` or `b == 1.0`  
`log(+Inf, +Inf)` is `NaN`  
`log(+Inf, b)` is `+Inf` for `b > 1` and `-Inf` for `b < 1`  
`log(0.0, b)` is `-Inf` for `b > 1` and `+Inf` for `b < 1`  
See also logarithm functions for common fixed bases: [ln], [log10] and [log2].

`SinceKotlin("1.2")\npublic expect fun log(x: Float, base: Float): Float`  
Computes the natural logarithm (base `E`) of the value [x].  
Special cases:  
`ln(NaN)` is `NaN`  
`ln(x)` is `NaN` when `x < 0.0`  
`ln(+Inf)` is `+Inf`  
`ln(0.0)` is `-Inf`

`SinceKotlin("1.2")\npublic expect fun ln(x: Float): Float`  
Computes the common logarithm (base 10) of the value [x].  
@see [ln] function for special cases.

`SinceKotlin("1.2")\npublic expect fun log10(x: Float): Float`  
Computes the binary logarithm (base 2) of the value [x].  
@see [ln] function for special cases.

`SinceKotlin("1.2")\npublic expect fun log2(x: Float): Float`  
Computes `ln(a + 1)`.  
This function can be implemented to produce more precise result for [x] near zero.  
Special cases:  
`ln1p(NaN)` is `NaN`  
`ln1p(x)` is `NaN` where `x < -1.0`  
`ln1p(-1.0)` is `-Inf`  
`ln1p(+Inf)` is `+Inf`  
@see [ln] function  
@see [expm1] function

`SinceKotlin("1.2")\npublic expect fun ln1p(x: Float): Float`  
Rounds the given value [x] to an integer towards positive infinity.  
@return the smallest Float value that is greater than or equal to the given value [x] and is a mathematical integer.  
Special cases:  
`ceil(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.

`SinceKotlin("1.2")\npublic expect fun ceil(x: Float): Float`  
Rounds the given value [x] to an integer towards negative infinity.  
@return the largest Float value that is smaller than or equal to the given value [x] and is a mathematical integer.  
Special cases:  
`floor(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.

`SinceKotlin("1.2")\npublic expect fun floor(x: Float): Float`  
Rounds the given value [x] to an integer towards zero.  
@return the value [x] having its fractional part truncated.  
Special cases:  
`truncate(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.

`SinceKotlin("1.2")\npublic expect fun truncate(x: Float): Float`  
Rounds the given value [x] towards the closest integer with ties rounded towards even integer.  
Special cases:  
`round(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.

`SinceKotlin("1.2")\npublic expect fun round(x: Float): Float`  
Returns the absolute value of the given value [x].  
Special cases:  
`abs(NaN)` is `NaN`  
@see absoluteValue extension property for [Float]

`SinceKotlin("1.2")\npublic expect fun abs(x: Float): Float`  
Returns the sign of the given value [x]:  
`-1.0` if the value is negative,  
`0.0` if the value is zero,  
`1.0` if the value is positive  
Special case:  
`sign(NaN)` is `NaN`

`SinceKotlin("1.2")\npublic expect fun sign(x: Float): Float`  
Returns the smaller of two values.  
If either value is `NaN`, then the result is `NaN`.

`SinceKotlin("1.2")\npublic expect fun min(a: Float, b: Float): Float`  
Returns the greater of two values.  
If either value is `NaN`, then the result is `NaN`.

`SinceKotlin("1.2")\npublic expect fun max(a: Float, b: Float): Float`  
Raises this value to the power [x].  
Special cases:  
`b.pow(0.0)` is `1.0`  
`b.pow(1.0) == b`  
`b.pow(NaN)` is `NaN`  
`NaN.pow(x)` is `NaN` for `x != 0.0`  
`b.pow(Inf)` is `NaN` for `abs(b) == 1.0`  
`b.pow(x)` is `NaN` for `b < 0` and `x` is finite and not an integer

`SinceKotlin("1.2")\npublic expect fun Float.pow(x: Float): Float`  
Raises this value to the integer power [n].  
See the other overload of [pow] for details.

`SinceKotlin("1.2")\npublic expect fun Float.pow(n: Int): Float`

Int): Float\n\n/\*\*\n \* Returns the absolute value of this value.\n \*\n \* Special cases:\n \* - `NaN.absoluteValue` is `NaN`\n \*\n \* @see abs function\n \*\n@SinceKotlin("1.2")\npublic expect val Float.absoluteValue: Float\n\n/\*\*\n \* Returns the sign of this value:\n \* - `-1.0` if the value is negative,\n \* - zero if the value is zero,\n \* - `1.0` if the value is positive\n \*\n \* Special case:\n \* - `NaN.sign` is `NaN`\n \*\n@SinceKotlin("1.2")\npublic expect val Float.sign: Float\n\n/\*\*\n \* Returns this value with the sign bit same as of the [sign] value.\n \*\n \* If [sign] is `NaN` the sign of the result is undefined.\n \*\n@SinceKotlin("1.2")\npublic expect fun Float.withSign(sign: Float): Float\n\n/\*\*\n \* Returns this value with the sign bit same as of the [sign] value.\n \*\n@SinceKotlin("1.2")\npublic expect fun Float.withSign(sign: Int): Float\n\n/\*\*\n \* Rounds this [Float] value to the nearest integer and converts the result to [Int].\n \*\n \* Ties are rounded towards positive infinity.\n \*\n \* Special cases:\n \* - `x.roundToInt() == Int.MAX\_VALUE` when `x > Int.MAX\_VALUE`\n \* - `x.roundToInt() == Int.MIN\_VALUE` when `x < Int.MIN\_VALUE`\n \*\n \* @throws IllegalArgumentException when this value is `NaN`\n \*\n@SinceKotlin("1.2")\npublic expect fun Float.roundToInt(): Int\n\n/\*\*\n \* Rounds this [Float] value to the nearest integer and converts the result to [Long].\n \*\n \* Ties are rounded towards positive infinity.\n \*\n \* Special cases:\n \* - `x.roundToLong() == Long.MAX\_VALUE` when `x > Long.MAX\_VALUE`\n \* - `x.roundToLong() == Long.MIN\_VALUE` when `x < Long.MIN\_VALUE`\n \*\n \* @throws IllegalArgumentException when this value is `NaN`\n \*\n@SinceKotlin("1.2")\npublic expect fun Float.roundToLong(): Long\n\n\n// endregion\n\n// region\n\n==== Integer Math =====\n\n/\*\*\n \* Returns the absolute value of the given value [n].\n \*\n \* Special cases:\n \* - `abs(Int.MIN\_VALUE)` is `Int.MIN\_VALUE` due to an overflow\n \*\n \* @see absoluteValue extension property for [Int]\n \*\n@SinceKotlin("1.2")\npublic expect fun abs(n: Int): Int\n\n/\*\*\n \* Returns the smaller of two values.\n \*\n@SinceKotlin("1.2")\npublic expect fun min(a: Int, b: Int): Int\n\n/\*\*\n \* Returns the greater of two values.\n \*\n@SinceKotlin("1.2")\npublic expect fun max(a: Int, b: Int): Int\n\n/\*\*\n \* Returns the absolute value of this value.\n \*\n \* Special cases:\n \* - `Int.MIN\_VALUE.absoluteValue` is `Int.MIN\_VALUE` due to an overflow\n \*\n \* @see abs function\n \*\n@SinceKotlin("1.2")\npublic expect val Int.absoluteValue: Int\n\n/\*\*\n \* Returns the sign of this value:\n \* - `-1` if the value is negative,\n \* - `0` if the value is zero,\n \* - `1` if the value is positive\n \*\n@SinceKotlin("1.2")\npublic expect val Int.sign: Int\n\n\n// endregion\n\n// region\n\n/\*\*\n \* Returns the absolute value of the given value [n].\n \*\n \* Special cases:\n \* - `abs(Long.MIN\_VALUE)` is `Long.MIN\_VALUE` due to an overflow\n \*\n \* @see absoluteValue extension property for [Long]\n \*\n@SinceKotlin("1.2")\npublic expect fun abs(n: Long): Long\n\n/\*\*\n \* Returns the smaller of two values.\n \*\n@SinceKotlin("1.2")\npublic expect fun min(a: Long, b: Long): Long\n\n/\*\*\n \* Returns the greater of two values.\n \*\n@SinceKotlin("1.2")\npublic expect fun max(a: Long, b: Long): Long\n\n/\*\*\n \* Returns the absolute value of this value.\n \*\n \* Special cases:\n \* - `Long.MIN\_VALUE.absoluteValue` is `Long.MIN\_VALUE` due to an overflow\n \*\n \* @see abs function\n \*\n@SinceKotlin("1.2")\npublic expect val Long.absoluteValue: Long\n\n/\*\*\n \* Returns the sign of this value:\n \* - `-1` if the value is negative,\n \* - `0` if the value is zero,\n \* - `1` if the value is positive\n \*\n@SinceKotlin("1.2")\npublic expect val Long.sign: Int\n\n\n// endregion\n\nendregion\n"],"names":["mappings":"AAWC,CAXA,yB;EACG,IAAI,OAAO,MAAO,KAAL,UAAW,IAAG,MAAM,IAA1C,C;IACI,MAAM,CAAC,QAAD,EAAW,CAAC,SAAD,CAAX,EAAWB,OAAxB,C;SAEL,IAAI,OAAO,AAQ,KAAL,QAAvB,C;IACD,OAAO,CAAC,MAAM,QAAP,C;;IAGP,IAAI,OAAQ,GAAE,E;IACd,OAAO,CAAC,IAAI,OAAL,C;;CAEd,CAAC,IAAD,EA AO,kB;EACJ,IAAI,IAAI,M;ECPZ,MAAM,eAAgB,GAAE,a;IACpB,OA Aod,CAA5C,KA AK,QAAQ,CAAC,CAAD,CAAI,IAAG,CAAE,YAAW,SAAW,KAAG,CAAC,OAAQ,KAAL,c;G ;EAGxE,MAAM,YAAa,GAAE,a;IACjB,OAAO,CAAE,YAAW,SAAU,IAAG,CAAC,OAAQ,KAAL,c;G;EAGID,M AAM,aAAc,GAAE,a;IACIB,OAAO,CAAE,YAAW,U;G;EAGxB,MAAM,YAAa,GAAE,a;IACjB,OAAO,CAAE,Y AAW,WAA Y,IAAG,CAAC,OAAQ,KAAL,W;G;EAGpD,MAAM,WAA Y,GAAE,a;IAChB,OAAO,CAAE,YAAW, U;G;EAGxB,MAAM,aAAc,GAAE,a;IACIB,OAAO,CAAE,YAAW,Y;G;EAGxB,MAAM,cAAe,GAAE,a;IACnB,O AAO,CAAE,YAAW,Y;G;EAGxB,MAAM,YAAa,GAAE,a;IACjB,OAAO,KA AK,QAAQ,CAAC,CAAD,CAAI,IA

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s/UA,iB;UACA,IAAK,WAAI,OAAJ,C;;QAIQT,OAoQO,W;O;KA7QX,C;sFAYA,yB;MAAA,wE;MAoQA,+D;M  
ApQA,yC;QASW,kBAAU,oB;QAoQD,Q;QAAhB,iD;UAAgB,cAAhB,e;UACI,UArQuD,WAqQ7C,CAAY,OAAZ,  
C;UO3gVP,U;UADP,YP6gVe,Wo7gVH,Wp6gVwB,GO7gVxB,C;UACL,IAAI,aAAJ,C;YACH,aP2gVuC,gB;YA  
A5B,Wo1gVX,aP0gVgC,GO1gVhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;UPugVA,iB;UACA,IAAK,WAAI,OAA  
J,C;;QAvQT,OAYQO,W;O;KAIRX,C;sFAYA,yB;MAAA,wE;MAyQA,oC;MAAA,+D;MAAA,gC;MAzQA,yC;QA  
SW,kBAAU,oB;QAYQD,Q;QAAhB,iD;UAAgB,cAAhB,0B;UACI,UA1QoD,WA0Q1C,CAAY,oBAAZ,C;UO5hV  
P,U;UADP,YP8hVe,Wo9hVH,Wp8hVwB,GO9hVxB,C;UACL,IAAI,aAAJ,C;YACH,aP4hVuC,gB;YAA5B,Wo3  
hVX,aP2hVgC,GO3hVhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;UPwhVA,iB;UACA,IAAK,WAAI,oBAAJ,C;;QA5  
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gjVwB,GOhjVxB,C;UACL,IAAI,aAAJ,C;YACH,aP8iVuC,gB;YAA5B,Wo7iVX,aP6iVgC,GO7iVhC,EAAS,MA  
AT,C;YACA,e;;YAEA,c;;UP0iVA,iB;UACA,IAAK,WajRyD,cAiRrD,CAAE,OAAf,CAAJ,C;;QajRT,OAmRO,W  
;O;KA7RX,C;sFAaA,yB;MAAA,wE;MAMRA,+D;MANRA,yD;QAUW,kBAAU,oB;QAmRD,Q;QAAhB,iD;UAA  
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VxB,C;UACL,IAAI,aAAJ,C;YACH,aPkgVuC,gB;YAA5B,Wo/jVX,aP+jVgC,GO/jVhC,EAAS,MAAT,C;YACA,e

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,C;;QajChB,OAkCO,W;O;KAZCX,C;0GAUA,yB;MAAA,+D;MAoSA,wE;MApSA,uC;QAOW,kBAAoB,gB;QAO  
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T,C;QACR,IAAI,2BAAW,CAAX,KAAJ,C;UACI,UAAU,C;UACV,WAAW,C;;MAED,QAAT,QAAS,W;MACIB,  
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CjB,QAAQ,SAAS,CAAT,C;QACR,IAAI,2BAAW,CAAX,KAAJ,C;UACI,UAAU,C;UACV,WAAW,C;;;MAED,Q  
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B,C;UACI,QAAQ,SAAS,QAAS,OAAIB,C;UACR,WF54DG,MAAO,KE44DO,QF54DP,EE44DiB,CF54DjB,C;;Q  
E84Dd,OAAO,Q;O;KApBX,C;mFAuBA,yB;MAAA,sE;MFp6DA,iB;MEo6DA,sC;QAaI,eAAe,oB;QACf,IAAI,C  
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,C;UAAyB,MAAM,6B;QAC/B,eAAe,SAAS,QAAS,OAAIB,C;QACf,OAAO,QAAS,UAAhB,C;UACI,QAAQ,SA  
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,WF/8DG,MAAO,KE+8DO,QF/8DP,EE+8DiB,CF/8DjB,C;;QEi9Dd,OAAO,Q;O;KAIBX,C;+FAqBA,yB;MFv+D

A,iB;MEu+DA,sC;QAWI,eAAe,oB;QACf,IAAI,CAAC,QAAS,UAAAd,C;UAAyB,OAAO,I;QAChC,eAAe,SAAS,Q  
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KE++DO,QF/+DP,EE++DiB,CF/+DjB,C,;QEi/Dd,OAAO,Q;O;KAIBX,C;+FAqBA,+B;MASI,eAAe,oB;MACf,IA  
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B,C;QACI,QAAQ,SAAS,QAAS,OAAIB,C;QACR,IAAI,2BAAW,CAAX,KAAJ,C;UACI,WAAW,C,;MAGnB,OA  
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+DmD,eas+DnD,Gbt+D8D,KAAK,Kas+D5D,SAAS,oBAAT,Cbt+DuE,KAAx,CAAhB,C;;Qaw+DvD,OAAO,G;O  
;KAdX,C;IAiBA,oC;MAWI,OAAO,sBAAS,IAAT,EAAe,IAAf,EAAsC,IAAtC,C;K;IAGX,+C;MAGBI,OAAO,sBA  
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,uC;QASW,kBAAY,gB;QAKDH,Q;QAAA,2B;QAAhB,OAAgB,cAAhB,C;UAAgB,yB;UAAM,IAAI,CAIDa,SAK  
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UAAU, KAAV, EAAiB, WAAjB, EAA8B, sBAAK, KAAL, CAA9B, C;; QAEIB, OAAO, W; O; KAtBX, C; mGAYBA, yB; MAAA, 4F; MApZII, 8D; MAozIJ, uC; QAmBqB, Q; QAHjB, IAAI, mBAAJ, C; UACI, MAAM, mCAA8B, +BAA9B, C; QACV, kBAakB, sBAAK, CAAL, C; QACD, OA0ID, cAAR, iBAAQ, C; QAU0IhB, iBAAc, CAAd, yB; UACI, cAAc, UAAU, KAAV, EAAiB, WAAjB, EAA8B, sBAAK, KAAL, CAA9B, C;; QAEIB, OAAO, W; O; KAtBX, C; mGAYBA, yB; MAA A, 4F; MAr0II, 8D; MAq0IJ, uC; QAmBqB, Q; QAHjB, IAAI, mBAAJ, C; UACI, MAAM, mCAA8B, +BAA9B, C; QACV, kBAakB, sBAAK, CAAL, C; QACD, OAx1ID, cAAR, iBAAQ, C; QAw1IhB, iBAAc, CAAd, yB; UACI, cAAc, UAAU, KA AV, EAAiB, WAAjB, EAA8B, sBAAK, KAAL, CAA9B, C;; QAEIB, OAAO, W; O; KAtBX, C; +GAYBA, yB; MAT3II, 8D; MAs3IJ, uC; QAkBqB, Q; QAHjB, IAAI, mBAAJ, C; UACI, OAAO, I; QACX, kBAakB, sBAAK, CAAL, C; QACD, OAx4 ID, cAAR, iBAAQ, C; QAw4IhB, iBAAc, CAAd, yB; UACI, cAAc, UAAU, KAAV, EAAiB, WAAjB, EAA8B, sBAAK, K AAL, CAA9B, C;; QAEIB, OAAO, W; O; KArBX, C; +GAwBA, yB; MAT4II, 8D; MAs4IJ, uC; QAkBqB, Q; QAHjB, IAAI, mBAAJ, C; UACI, OAAO, I; QACX, kBAakB, sBAAK, CAAL, C; QACD, OAx5ID, cAAR, iBAAQ, C; QAw5IhB, iBAAc ,CAAd, yB; UACI, cAAc, UAAU, KAAV, EAAiB, WAAjB, EAA8B, sBAAK, KAAL, CAA9B, C;; QAEIB, OAAO, W; O; KArBX, C; +GAwBA, yB; MAT5II, 8D; MAs5IJ, uC; QAkBqB, Q; QAHjB, IAAI, mBAAJ, C; UACI, OAAO, I; QACX, kBA AkB, sBAAK, CAAL, C; QACD, OAx6ID, cAAR, iBAAQ, C; QAw6IhB, iBAAc, CAAd, yB; UACI, cAAc, UAAU, KAAV ,EAAiB, WAAjB, EAA8B, sBAAK, KAAL, CAA9B, C;; QAEIB, OAAO, W; O; KArBX, C; +GAwBA, yB; MAT6II, 8D; M As6IJ, uC; QAkBqB, Q; QAHjB, IAAI, mBAAJ, C; UACI, OAAO, I; QACX, kBAakB, sBAAK, CAAL, C; QACD, OAx7ID ,cAAR, iBAAQ, C; QAw7IhB, iBAAc, CAAd, yB; UACI, cAAc, UAAU, KAAV, EAAiB, WAAjB, EAA8B, sBAAK, KAA L, CAA9B, C;; QAEIB, OAAO, W; O; KArBX, C; iGAwBA, yB; MAT9II, 8D; MAs9IJ, uC; QAmBqB, Q; QAHjB, IAAI, mB AAJ, C; UACI, OAAO, I; QACX, kBAakB, sBAAK, CAAL, C; QACD, OAz+ID, cAAR, iBAAQ, C; QAY+IhB, iBAAc, CA Ad, yB; UACI, cAAc, UAAU, WAAV, EAAuB, sBAAK, KAAL, CAAvB, C;; QAEIB, OAAO, W; O; KAtBX, C; iGAYBA, y B; MAV+II, 8D; MAu+IJ, uC; QAmBqB, Q; QAHjB, IAAI, mBAAJ, C; UACI, OAAO, I; QACX, kBAakB, sBAAK, CAAL, C; QACD, OA1/ID, cAAR, iBAAQ, C; QA0/IhB, iBAAc, CAAd, yB; UACI, cAAc, UAAU, WAAV, EAAuB, sBAAK, KA AL, CAAvB, C;; QAEIB, OAAO, W; O; KAtBX, C; iGAYBA, yB; MAX/II, 8D; MAw/IJ, uC; QAmBqB, Q; QAHjB, IAAI, m BAAJ, C; UACI, OAAO, I; QACX, kBAakB, sBAAK, CAAL, C; QACD, OA3gJD, cAAR, iBAAQ, C; QA2gJhB, iBAAc, C AAd, yB; UACI, cAAc, UAAU, WAAV, EAAuB, sBAAK, KAAL, CAAvB, C;; QAEIB, OAAO, W; O; KAtBX, C; iGAYBA ,yB; MAZgJI, 8D; MAYgJJ, uC; QAmBqB, Q; QAHjB, IAAI, mBAAJ, C; UACI, OAAO, I; QACX, kBAakB, sBAAK, CAA L, C; QACD, OA5hJD, cAAR, iBAAQ, C; QA4hJhB, iBAAc, CAAd, yB; UACI, cAAc, UAAU, WAAV, EAAuB, sBAAK, KAAL, CAAvB, C;; QAEIB, OAAO, W; O; KAtBX, C; +FAYBA, yB; MAAA, 4F; MA1jJI, 8D; MA0jJJ, uC; QAkB0B, UAE U, M; QAJhC, YA1kJgB, cAAR, iBAAQ, C; QA2kJhB, IAAI, QAAQ, CAAZ, C; UAAe, MAAM, mCAA8B, +BAA9B, C; QACrB, kBAakB, uBAAI, YAAJ, EAAI, oBAAJ, Q; QACIB, OAAO, SAAS, CAAhB, C; UACI, cAAc, UAAU, uBAAI, cA AJ, EAAI, sBAAJ, UAAV, EAAwB, WAAxB, C;; QAEIB, OAAO, W; O; KAtBX, C; +FAYBA, yB; MAAA, 4F; MA3kJI, 8D ;MA2kJJ, uC; QAkB0B, UAEU, M; QAJhC, YA3IjgB, cAAR, iBAAQ, C; QA4IjHb, IAAI, QAAQ, CAAZ, C; UAAe, MAA M, mCAA8B, +BAA9B, C; QACrB, kBAakB, uBAAI, YAAJ, EAAI, oBAAJ, Q; QACIB, OAAO, SAAS, CAAhB, C; UAC I, cAAc, UAAU, uBAAI, cAAJ, EAAI, sBAAJ, UAAV, EAAwB, WAAxB, C;; QAEIB, OAAO, W; O; KAtBX, C; +FAYBA, yB; MAAA, 4F; MA5IJI, 8D; MA4IJJ, uC; QAkB0B, UAEU, M; QAJhC, YA5mJgB, cAAR, iBAAQ, C; QA6mJhB, IAAI, Q AAQ, CAAZ, C; UAAe, MAAM, mCAA8B, +BAA9B, C; QACrB, kBAakB, uBAAI, YAAJ, EAAI, oBAAJ, Q; QACIB, O AAO, SAAS, CAAhB, C; UACI, cAAc, UAAU, uBAAI, cAAJ, EAAI, sBAAJ, UAAV, EAAwB, WAAxB, C;; QAEIB, OA AO, W; O; KAtBX, C; +FAYBA, yB; MAAA, 4F; MA7mJI, 8D; MA6mJJ, uC; QAkB0B, UAEU, M; QAJhC, YA7nJgB, cAA R, iBAAQ, C; QA8nJhB, IAAI, QAAQ, CAAZ, C; UAAe, MAAM, mCAA8B, +BAA9B, C; QACrB, kBAakB, uBAAI, YA AJ, EAAI, oBAAJ, Q; QACIB, OAAO, SAAS, CAAhB, C; UACI, cAAc, UAAU, uBAAI, cAAJ, EAAI, sBAAJ, UAAV, EA AwB, WAAxB, C;; QAEIB, OAAO, W; O; KAtBX, C; 6GAYBA, yB; MAAA, 4F; MA9pJI, 8D; MA8pJJ, uC; QAkB0B, Q; Q AFtB, YA9qJgB, cAAR, iBAAQ, C; QA+qJhB, IAAI, QAAQ, CAAZ, C; UAAe, MAAM, mCAA8B, +BAA9B, C; QACrB, kBAakB, uBAAI, YAAJ, EAAI, oBAAJ, Q; QACIB, OAAO, SAAS, CAAhB, C; UACI, cAAc, UAAU, KAAV, EAAiB, sB AAI, KAAJ, CAAjB, EAA6B, WAA7B, C; UACd, qB;; QAEJ, OAAO, W; O; KAvBX, C; 6GA0BA, yB; MAAA, 4F; MAhrJ I, 8D; MAgrJJ, uC; QAkB0B, Q; QAFtB, YAhsJgB, cAAR, iBAAQ, C; QAisJhB, IAAI, QAAQ, CAAZ, C; UAAe, MAAM, mCAA8B, +BAA9B, C; QACrB, kBAakB, uBAAI, YAAJ, EAAI, oBAAJ, Q; QACIB, OAAO, SAAS, CAAhB, C; UACI, c AAc, UAAU, KAAV, EAAiB, sBAAI, KAAJ, CAAjB, EAA6B, WAA7B, C; UACd, qB;; QAEJ, OAAO, W; O; KAvBX, C; 6 GA0BA, yB; MAAA, 4F; MAIsJI, 8D; MAksJJ, uC; QAkB0B, Q; QAFtB, YAltJgB, cAAR, iBAAQ, C; QAMtJhB, IAAI, QA

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QAAU,QAAA,KAAV,M;QAAiB,MAxHV,MAAO,KAwHe,GAxHf,EAwHoB,CxHpB,C;;MAyHd,OAAO,G;K;I  
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;K;IAGX,4B;MAMc,Q;MADV,UAAU,C;MACV,wBAAU,KAAV,gB;QAAU,QAAA,KAAV,M;QAAuB,UAAM,  
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A8IoB,CA9IpB,C;;MA+Id,OAAO,G;K;IAGX,4B;MAQc,Q;MADV,UAAU,C;MACV,wBAAU,KAAV,gB;QAAU,  
QAAA,KAAV,M;QAAiB,MA/IV,MAAO,KA+Ie,GA/If,EA+IoB,CA/IpB,C;;MAGJd,OAAO,G;K;IsDvaX,iB;MAA  
A,qB;MAEI,0BAA0B,gBACTb,EADsB,EACd,IADc,EACN,IADM,EACE,IADF,EACU,IADV,EACkB,IADIB,EA  
C0B,IADIB,EACkC,IADIC,EAC0C,IAD1C,EACkD,IADID,EAC0D,IAD1D,EACkE,IADIE,EAC0E,IAD1E,EACK  
F,IADIF,EAC0F,IAD1F,EACkG,IADIG,EAC0G,IAD1G,EACKH,IADIH,EAC0H,IAD1H,EACKI,IADII,EAETb,IA  
FsB,EAEd,IAFc,EAEN,IAFM,EAEE,IAFF,EAEU,IAFV,EAekB,IAFIB,EAE0B,IAF1B,EAekC,IAFIC,EAE0C,IA  
F1C,EAekD,KAFID,EAE0D,KAF1D,EAekE,KAFIE,EAE0E,KAF1E,EAekF,KAFIF,EAE0F,KAF1F,EAekG,KA  
FIG,EAE0G,KAF1G,E;K;;IAF9B,6B;MAAA,4B;QAAA,W;;MAAA,qB;K;IAQA,0C;MAKI,aAAa,C;MACb,UAA  
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,CAAC,SAAS,GAAT,IAAD,IAAiB,CAAjB,I;QACT,QAAQ,MAAM,MAAN,C;QACR,IAAI,SAAS,KAAb,C;UAC  
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AQ,EwCrqBoB,O3DgNA,KmBqdpB,C;K;yDwCnqBX,mB;MAES,Q;MAAL,IAAI,eAAC,0EAAD,QAAJ,C;QAAi  
C,OAAO,E;MACxC,OxCw5BO,cwCx5BA,gBxCw5BR,QAAQ,EwCx5BwB,O3D2MJ,KmB6sBpB,C;K;;IwC96Bn  
B,6B;MAMI,4C;K;IA2BO,6C;MAAA,8B;MAAS,uB;K;8FACW,Y;MAAQ,OAAA,gBAAY,K;K;+CAC3C,Y;MA  
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,2BAAkB,KAAIB,EAAYB,SAAZB,C;MACb,OAAO,6BAAY,KAAZ,C;K;qDAEX,mB;MAES,Q;MAAL,IAAI,eA  
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AV,C;;K;IAIR,uC;MACI,OAAO,gBAAkB,IAAlB,O;K;IAGX,iF;MAII,oCAAA,2BAAkB,UAAIB,EAAsB,QAA9B  
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AjC,C;;K;IOiOd,8C;MAAoE,Y;K;I8D1PV,qC;MAAiC,6B;K;uDAlvF,mB;MACI,qB;MACA,eAAe,e;MACf,OAA  
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;;MAGf,OAAO,K;K;yDAGX,oB;MAGoB,Q;MAFhB,qB;MACA,eAAe,K;MACC,0B;MAAhB,OAAgB,cAAhB,C  
;QAAgB,yB;QACZ,IAAI,eAAI,OAAJ,CAAJ,C;UAAkB,WAAW,I;;MAEjC,OAAO,Q;K;IAKuC,sE;MAAA,qB;Q  
AAE,OAAO,gBAAN,mB;O;K;4DAFpD,oB;MAEY,Q;MADR,qB;MACA,OAAoC,YAA5B,iEAA4B,EAAU,oDA  
AV,C;K;IAKU,sE;MAAA,qB;QAAE,QAAO,gBAAP,mB;O;K;4DAFpD,oB;MAEY,Q;MADR,qB;MACA,OAAoC  
,YAA5B,iEAA4B,EAAU,oDAAV,C;K;gDAGxC,Y;MACI,qB;MACA,eAAe,IAAK,W;MACpB,OAAO,QAAS,UA  
AhB,C;QACI,QAAS,O;QACT,QAAS,S;;K;iDAIjB,Y;MAE8B,OAAA,IAAK,U;K;yDAGnC,Y;K;;IC3CgD,+B;MA  
AiC,oC;MACjF,gBAA8B,C;K;8CAM9B,mB;MAMI,qB;MACA,iBAAI,SAAJ,EAAU,OAAV,C;MACA,OAAO,I;  
K;mDAGX,2B;MAMc,UACF,M;MANR,oCAAA,4BAAMB,KAAAnB,EAA0B,SAAI1B,C;MAEb,qB;MACA,aAAa,  
K;MACb,cAAc,K;MACJ,0B;MAAV,OAAU,cAAV,C;QAAU,mB;QACN,kBAAI,eAAJ,EAAI,uBAAJ,WAAc,CA  
Ad,C;QACA,UAAU,I;;MAEd,OAAO,O;K;0CAGX,Y;MACI,qB;MACA,yBAAY,CAAZ,EAAe,SAAF,C;K;IAKiB,  
gE;MAAA,qB;QAAE,OAAO,gBAAN,mB;O;K;sDAFvB,oB;MACI,qB;MACA,OAAO,kBAAU,8CAAV,C;K;IAK  
U,gE;MAAA,qB;QAAE,QAAO,gBAAP,mB;O;K;sDAFvB,oB;MACI,qB;MACA,OAAO,kBAAU,8CAAV,C;K;6C  
AIX,Y;MAAQd,iD;K;mDAErD,mB;MAAoD,0BAAQ,OAAO,KAAoB,C;K;kDAExE,mB;MACqB,Q;MAAA,6B;  
MAAjB,iBAAc,CAAd,yB;QACI,IAAI,wBAAI,KAAJ,GAAC,OAAAd,CAAJ,C;UACI,OAAO,K;;MAGf,OAAO,E;K  
;sDAGX,mB;MACI,iBAAc,sBAAd,WAA+B,CAA/B,U;QACI,IAAI,wBAAI,KAAJ,GAAC,OAAAd,CAAJ,C;UACI,  
OAAO,K;;MAGf,OAAO,E;K;iDAGX,Y;MAA6D,iCAAA,CAAb,C;K;yDAC7D,iB;MAAuE,sDAAiB,KAAjB,C;K  
;oDAGvE,8B;MAA4E,uCAAQ,IAAR,EAAc,SAAd,EAAyB,OAAzB,C;K;wDAE5E,8B;MAII,eAAe,0BAAa,SAAb  
,C;MACf,YAAO,UAAU,SAAV,I;MnEuDX,iBAAc,CAAd,UAAAsB,KAAAtB,U;QmEtDiB,e;QACA,iB;;K;2CAIjB,i  
B;MAMI,IAAI,UAAU,IAAd,C;QAAoB,OAAO,I;MAC3B,IAAI,2BAAJ,C;QAAuB,OAAO,K;MAE9B,OAAO,oC  
AAa,uBAAc,IAAd,EAAoB,KAApB,C;K;6CAGxB,Y;MAG+B,OAAA,oCAAA,yBAAGB,IAAhB,C;K;IAG5C,kD;  
MAAA,oB;MACI,eACsB,C;MACTb,cAlqB,E;K;yDAErB,Y;MAAkC,sBAAQ,gB;K;sDAE1C,Y;MAEW,Q;MADP  
,IAAI,CAAC,cAAL,C;QAAgB,MAAM,6B;MACTb,eAAO,mBAAP,EAAO,2BAAP,O;MACA,OAAO,wBAAI,WA  
AJ,C;K;wDAGX,Y;MtE5CJ,IAAI,EsE6CU,gBAAQ,EtE7CIB,CAAJ,C;QACI,csE4CwB,sE;QtE3CxB,MAAM,6BA  
AsB,OAAQ,WAA9B,C;;MsE6CF,6BAAS,WAAAT,C;MACA,eAAQ,W;MACR,cAAO,E;K;;IAOqB,6D;MAHpC,o  
B;MAGmD,wD;MAG3C,oCAAA,4BAAMB,KAAAnB,EAA0B,WAAyB,KAAAnD,C;MACb,eAAa,K;K;iEAGjB,Y;M  
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AE1B,eAAO,mCAAP,EAAO,YAAP,C;MACA,OAAO,wBAAI,WAAJ,C;K;mEAGX,Y;MAAoC,sBAAQ,CAAR,I;  
K;+DAEpC,mB;MACI,wBAAI,YAAJ,EAAW,OAAAX,C;MACA,mC;MACA,cAAO,E;K;+DAGX,mB;MtE1FJ,IAA  
I,EsEmFU,gBAAQ,EtEnFIB,CAAJ,C;QACI,csEkFwB,4E;QtEjFxB,MAAM,6BAAsB,OAAQ,WAA9B,C;;MsEkFF  
,wBAAI,WAAJ,EAAU,OAAV,C;K;;IAIgB,+D;MAAuF,8B;MAAtF,kB;MAA0C,4B;MAC/D,eAAyB,C;MAGrB,o  
CAAA,2BAAkB,gBAAIB,EAA6B,OAA7B,EAAc,WAAK,KAA3C,C;MACb,eAAa,UAAU,gBAAV,I;K;wDAGjB  
,0B;MACI,oCAAA,4BAAMB,KAAAnB,EAA0B,YAA1B,C;MAEb,WAAK,aAAI,mBAAY,KAAZ,IAAJ,EAAuB,OA  
AvB,C;MACL,mC;K;wDAGJ,iB;MACI,oCAAA,2BAAkB,KAAIB,EAAyB,YAAzB,C;MAEb,OAAO,wBAAK,mB  
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;K;2DAE/B,Y;MAA+C,WAAK,iB;K;;ICxMN,8B;MAAiC,sB;MAwCnF,uBAAoC,I;MA+CpC,yBAA6C,I;K;IAIF  
R,oD;MAAC,wB;MAGIC,gBAAqB,K;K;IFAHa,Y;MAAA,yB;K;uGAKZ,Y;MAAQ,oB;K;8DAE9B,oB;MAKLeA  
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EAAc,IAAd,C;K;sDACIC,iB;MAA4C,+DAAY,IAAZ,EAAB,KAAIB,C;K;;IAIB5C,8E;MAAA,wE;MAAsC,2CA  
AK,KAAAM,IAAX,EAAGB,KAAAM,MAAtB,C;MAAtC,Y;K;IASBJ,+C;MACsE,6B;K;mEACIE,mB;MAAmD,kCA  
Ac,OAAAd,C;K;iEAEnD,mB;MAAiD,gCAAY,OAAZ,C;K;;yCAIrD,Y;MACI,YAAQ,Q;K;IAOQ,+F;MAAA,sD;M

AAS,6B;K;uFACb,mB;MAAwC,MAAM,qCAA8B,8BAA9B,C;K;mFAC9C,Y;MACI,4BAAwB,Q;K;4FAG5B,mB  
;MAAsD,sDAAY,OAAZ,C;K;IAI3C,oH;MAAA,kD;K;4GACH,Y;MAAkC,OAAA,0BAAc,U;K;yGACHD,Y;MAA  
yB,OAAA,0BAAc,OAAO,I;K;2GAC9C,Y;MAAwB,0BAAc,S;K;;sFAL9C,Y;MACI,oBAAoB,oCAAQ,W;MAC5  
B,6G;K;0FAOJ,mB;MACI,qB;MACA,IAAI,+CAAY,OAAZ,CAAJ,C;QACI,4BAAwB,cAAO,OAAP,C;QACxB,O  
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1E,Y;MACI,IAAI,4BAAJ,C;QACI,6F;;MA+BJ,OAAO,mC;K;kDAKf,gB;MAEyB,Q;MADrB,qB;MACqB,OAAA,  
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D;K;8GACH,Y;MAAkC,OAAA,0BAAc,U;K;2GACHD,Y;MAAyB,OAAA,0BAAc,OAAO,M;K;6GAC9C,Y;MAA  
wB,0BAAc,S;K;;wFAL9C,Y;MACI,oBAAoB,oCAAQ,W;MAC5B,+G;K;sIAOmB,Y;MAAQ,OAAA,4BAAwB,K;  
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Gf,e;MACI,qB;MACA,WAAW,YAAQ,W;MACnB,OAAO,IAAK,UAAZ,C;QACI,YAA,Y,IAAK,O;QACjB,QAA  
Q,KAAM,I;QACd,IAAI,YAAO,CAAP,CAAJ,C;UACI,YAA,Y,KAAM,M;UACIB,IAAK,S;UACL,OAAO,K;;;MA  
Gf,OAAO,I;K;kDAIX,Y;K;;IC3I+C,8B;MAAiC,oC;K;0CAEHf,iB;MAMI,IAAI,UAAU,IAAd,C;QAAoB,OAAO,I;  
MAC3B,IAAI,0BAAJ,C;QAAsB,OAAO,K;MAC7B,OAAO,mCAAY,mBAAU,IAAV,EAAGB,KAaHb,C;K;4CAG  
vB,Y;MAG+B,OAAA,mCAAY,2BAAkB,IAAIB,C;K;;ICbT,0B;MAAuD,8B;MAAIC,4B;MACvD,4BAAkC,K;K;g  
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B,SAAnB,CAA5C,C;;MAG5D,qC;MACA,OAAO,I;K;2CAGX,iB;MACI,qB;MACA,0BAAW,KAAX,C;MACA,q  
C;MACA,OAAW,UAAS,sBAAb,GACG,oBAAY,MADf,GAGG,oBAAY,QAAO,KAAP,EAAC,CAAd,CAAIB,CA  
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B,OAAhB,CAAJ,C;UACU,oBAAY,QAAO,KAAP,EAAC,CAAd,C;UACIB,qC;UACA,OAAO,I;;MAGf,OAAO,K;  
K;8CAGX,8B;MACI,qB;MACA,qC;MACM,oBAAY,QAAO,SAAP,EAakB,UAAU,SAAV,IAAIB,C;K;gCAGtB,  
Y;MACI,qB;MACA,uB9BhHuC,E;M8BiHvC,qC;K;wCAIJ,mB;MAA+C,OAAM,QAAN,oBAAM,EAQ,OAAR,  
C;K;4CAErD,mB;MAAmD,OAAM,YAAN,oBAAM,EAAY,OAAZ,C;K;mCAEzD,Y;MAA0B,uBAAc,oBAAd,C;  
K;0CAE1B,iB;MAGe,UAGL,MAHK,EAMO,M;MAPIB,IAAI,KAAM,OAAN,GAAa,SAAJB,C;QACI,OAAO,2D;;  
MAGc,gBAAxB,eAAK,SAAL,IAAK,gBAAL,yB;MxEuwBL,UAAU,SAAV,EwEvwBsC,KxEuwBtC,EAD+F,CA  
C/F,EADoH,CACpH,EADuI,gBACvI,C;MwErwBI,IAAI,KAAM,OAAN,GAAa,SAAJB,C;QACI,MAAM,SAAN,I  
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;IAKA,kD;MAAA,mD;MAIkD,sB9BdP,E8BcO,C;MAJID,Y;K;IAMA,2C;MAAA,mD;MAGqD,sBIENa,YkEMR,  
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,KAAV,EAawC,CAAxC,EAAd,cAAN,KAAM,CAAjD,EAA4D,eAAW,UAAAX,CAA5D,C;;K;IAMiB,kD;MAAA  
,uB;QAAgB,OAAA,kBAAW,SAAQ,CAAR,EAaw,CAAX,C;O;K;IAFpD,4C;MACI,IAAI,6BAAJ,C;QACI,iBAA  
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O,I;K;qFAGmB,Y;MAAQ,OAAA,kBAAI,K;K;6CAE1C,Y;MACl,IAAI,yBAAJ,C;QAAGb,MAAM,oC;K;;IANg1  
B,mC;MAAA,uD;MAGuB,qB;MA9J3B,yB;MA+JQ,sBAAM,gB;MAJV,Y;K;IAOA,iD;MAAA,uD;MAAoD,qB;M  
AlKxD,yB;MAoKc,Q;MAAN,sBAAM,+D;MAFV,Y;K;IAKA,kE;MAAA,uD;MAQ8D,eAAM,eAAN,EAaU,B,UA  
AvB,Q;MA/KIE,yB;MAGLQ,sBAAM,gB;MATV,Y;K;IAYA,sD;MAAA,uD;MAA2C,qBAAK,eAAL,EAASB,GA  
AtB,Q;MAA3C,Y;K;IAEA,+C;MAAA,uD;MAG2C,qB;MAxL/C,yB;MAyLQ,sBAAM,gB;MACN,KAAK,gBAAO  
,QAAP,C;MALT,Y;K;IA6EJ,kC;MAKwD,gBAA7C,qBAAYb,eAAzB,C;MAAqD,wB;MAA5D,O/EjMO,S;K;;oC  
gFvCP,Y;MAEK,Q;MAA8B,CAA9B,2EAA8B,S;MAC/B,OAAO,I;K;6CAGX,Y;MAA+C,gBAAI,iB;K;;IAhCnD,  
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,Q;MAZ3B,yB;MASI,Y;K;IAKA,+C;MAAA,uD;MAG8C,eAAM,oBAAN,Q;MAjBID,yB;MAkBQ,qBAAO,QAA  
P,C;MAJJ,Y;K;IAOA,kE;MAAA,uD;MAQ8D,eAAM,qBAASb,eAAtB,EAaUc,UAAvC,CAAN,Q;MA7BIE,yB;M  
AqBI,Y;K;IAUA,sD;MAAA,uD;MAA2C,qBAAK,eAAL,EAASB,GAAtB,Q;MAA3C,Y;K;IAGBJ,qC;MAKMD,gB  
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ACI,Y;MACl,mBAAM,IAAN,C;K;2CAGJ,mB;MACl,mBAAM,OAAN,C;MACA,c;K;ICAKJ,Y;K;;IAKuB,oC;M  
AA8B,qB;MAA7B,gC;K;2CACxB,mB;MAEI,oBA+DyC,OA/Dd,OA+Dc,C;MA9DzC,iBAAa,OAAM,aAAN,C;K;  
;IAIrB,8B;MAEoC,qB;K;iDACHC,mB;MACl,OAAQ,KAAI,OAAJ,C;K;mDAGZ,mB;MACl,OAAQ,KAAI,OAAJ,  
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oCyC,OApCxB,OAoCwB,C;K;qCAjC7C,Y;MACl,cAAS,E;K;;IAIjB,sC;MAE4C,yB;K;yDACxC,mB;MACl,QAw  
ByC,OAxB1B,OAwB0B,C;MAvBzC,QAAQ,CxEqJoF,awErJhE,IxEqJgE,EwErJ1D,CxEqJ0D,C;MwEpJ5F,IAAI,  
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K;IAE3C,wB;MAC4C,MAAM,qCAA8B,4CAA9B,C;K;IClGID,mD;MACl,0B;MASA,gBAA2B,a;K;2FAFvB,Y;M

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C;K;4CAItB,Y;MAOW,Q;MALP,IAAI,kBAAW,2CAAf,C;QACI,gBAAS,yB;QACT,OAAO,yB;;MAEX,aAAa,IA  
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J,gD;MAAA,0D;MACyD,6BAAK,QAAL,EAAe,2CAAf,C;MADzD,Y;K;;;;ICRA,2C;MAAA,+D;MAAuB,iC;MA  
F3B,iC;MAEI,Y;K;IACA,sD;MAAA,+D;MAAuC,6BAAM,OAAN,Q;MAH3C,iC;MAGI,Y;K;IACA,6D;MAAA,+  
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N,Q;MALrC,iC;MAKI,Y;K;Ix4C4CJ,yE;MASI,sC;MAAA,4C;K;IATJ,iGAWY,Y;MAAQ,2B;KAXpB,E;IAAA,0D  
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Cd,EAAE,OAAF,IAAa,K;MACb,EAAE,SAAF,IAAe,O;MACf,EAAE,YAAF,IAAkB,U;MACIB,EAAE,UAAF,IA  
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E,cAAF,IAAoB,Y;MACpB,EAAE,YAAF,IAAkB,U;MACIB,EAAE,WAAF,IAAiB,S;MACjB,OAAO,C;K;yGAKB  
X,4C;MAEsC,oB;QAAA,OAAgB,S;MAAW,uB;QAAA,UAAoB,S;MAAW,wB;QAAA,WAAsB,S;MAAW,uB;QA  
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F,IAAgB,Q;MACHb,EAAE,SAAF,IAAe,O;MACf,OAAO,C;K;+FAkCmE,qB;MAAQ,OAAa,Y;K;6FAEtB,qB;MA  
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W;K;6FASiC,qB;MAAQ,OAAy,W;K;6FAEpB,qB;MAAQ,OAAy,W;K;uFAEvB,qB;MAAQ,OAAS,Q;K;qFAEn  
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,WAAqB,K;MAC3L,QAAQ,E;MACR,EAAE,kBAAF,IAAwB,gB;MACxB,EAAE,QAAF,IAAc,M;MACd,EAAE,  
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ChB,OAAO,C;K;mFAU8E,qB;MAAQ,OAAG,E;K;+FAEL,qB;MAAQ,OAac,a;K;iFAE7B,qB;MAAQ,OAAO,M;  
K;yFAEX,qB;MAAQ,OAAW,U;K;+EAEvB,qB;MAAQ,OAAO,M;K;+EAEf,qB;MAAQ,OAAO,M;K;oEtJlvG,yB  
;MAAA,kF;MAAA,0B;MAAA,uB;QAaI,IAAI,OAAO,CAAP,IAA8B,OAAO,KAAzC,C;UACI,MAAM,8BAAYB,  
wBAAqB,IAA9C,C;;QAEV,OAAy,OAAL,IAAK,C;O;KAhBhB,C;0EAwCiC,qB;MAAQ,OAAA,SAAK,I;K;IuInB  
V,6B;MAAC,qB;QAAA,8C;MAAA,kB;K;IACjC,2C;MAAA,e;MAAA,iB;MAAA,uB;K;IAAA,yC;MAAA,4C;O;  
MAKI,0E;MAEA,sE;K;;IAFA,kD;MAAA,+B;MAAA,0C;K;;IAEA,gD;MAAA,+B;MAAA,wC;K;;IAPJ,qC;MAA  
A,yF;K;;IAAA,0C;MAAA,a;aAAA,S;UAAA,+C;aAAA,O;UAAA,6C;;UAAA,8D;;K;;IA0BmC,sC;MACnC,8B;K;  
;IAMqC,sC;MACrC,8B;K;;IC5DJ,iC;K;;ICMA,4B;K;;IA6BA,gD;K;;IC5BA,qC;K;;IA0BA,+B;K;;ICNqC,uC;MA  
CjC,uB;QAAA,UAAsB,E;MACtB,qB;QAAA,+C;MADA,sB;MACA,kB;K;IAEA,4C;MAAA,e;MAAA,iB;MAAA,  
uB;K;IAAA,0C;MAAA,6C;O;MAKI,4E;MAGA,wE;K;IAHA,mD;MAAA,gC;MAAA,2C;K;;IAGA,iD;MAAA,gC  
;MAAA,yC;K;;IARJ,sC;MAAA,2F;K;;IAAA,2C;MAAA,a;aAAA,S;UAAA,gD;aAAA,O;UAAA,8C;;UAAA,+D;;  
K;;IAyByB,4B;MACzB,8B;K;;IC/C4C,8B;K;kDAI5C,mB;MAA6D,c;;QrJ2rD7C,Q;QADhB,IAAI,mCAAsB,cAA  
1B,C;UAAqC,aAAO,K;UAAP,e;;QACrB,sB;QAaHb,OAAGB,cAAhB,C;UAAgB,2B;UAAM,IqJ3rD6C,OrJ2rD/B,  
SqJ3rD+B,UrJ2rD7C,C;YAAwB,aAAO,I;YAAP,e;;QAC9C,aAAO,K;;MqJ5rDsD,iB;K;uDAE7D,oB;MACa,c;;Qr  
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E;MAAA,qB;QAC3D,OAAL,OAAO,uBAAX,GAAiB,mBAAjB,GAA6C,SAAH,EAAG,C;O;K;4CADjD,Y;MAAk  
C,4BAAa,IAAb,EAAmB,GAAmB,EAAwB,GAAxB,kBAA6B,wCAA7B,C;K;2CAIIC,Y;MAI4C,uBAAgB,IAAhB,  
C;K;mDAE5C,iB;MAI4D,yBAAgB,IAAhB,EAAsB,KAAtB,C;K;;IC/BhE,8B;MAAA,e;MAAA,iB;MAAA,uB;K;I  
AAA,4B;MAAA,+B;O;MACI,4C;MACA,kD;MACA,0C;MACA,8C;K;;IAHA,mC;MAAA,kB;MAAA,2B;K;;IAC  
A,sC;MAAA,kB;MAAA,8B;K;;IACA,kC;MAAA,kB;MAAA,0B;K;;IACA,oC;MAAA,kB;MAAA,4B;K;;IAJJ,wB;  
MAAA,sH;K;;IAAA,6B;MAAA,a;aAAA,O;UAAA,gC;aAAA,U;UAAA,mC;aAAA,M;UAAA,+B;aAAA,Q;UAAA  
,iC;;UAAA,6D;;K;;IAOA,4B;MAKI,mD;MACA,2BAA4B,I;K;yCAE5B,Y;MAEiB,IAAN,I;M5JUX,IAAI,E4JXQ,  
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M;UAAc,Y;UAAAd,K;aACA,O;UAAe,W;UAAf,K;;UACQ,wC;UAHL,K;;MAAP,W;K;sCAOJ,Y;MAIW,Q;MAHP,  
IAAI,CAAC,cAAL,C;QAAgB,MAAM,6B;MACtB,mD;MAEA,OAAO,2F;K;4DAGX,Y;MACI,iD;MACA,kB;MA  
CA,OAAO,kD;K;+CAeX,iB;MAII,2BAAY,K;MACZ,gD;K;sCAGJ,Y;MAII,+C;K;;ICjDkC,wB;MAoFtC,oC;MAP  
FgE,6B;K;sCAIhE,Y;MAAuC,0C;K;2CAEvC,mB;MAAwD,uB;;QvJkU3C,Q;QADb,YAAy,C;QACC,sB;QAAb,O  
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C,Y;MAEe,gB;MADX,IAAI,CAAC,cAAL,C;QAAGB,MAAM,6B;MACX,iE;MAAX,OAAO,+B;K;;IAO0B,sD;M  
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;K;iEACI,uB;MACI,IAAI,QAAQ,CAAR,IAAa,SAAS,IAA1B,C;QACI,MAAM,8BAA0B,YAAS,KAAT,gBAAuB,  
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U,cAAV,C;QAAU,mB;QACN,aAAW,MAAK,UAAI,SAAiB,6DAAiB,CAAIC,K;;MAEf,OAAO,U;K;6DAGX,oB  
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B,oBAAW,OAAhD,C;YAAL,K;YACQ,0BAAM,qBAAoB,YAAy,cAAZ,CAApB,CAAN,C;YAhL,K;QAAP,W;;  
MAMJ,OAAoC,oBAA7B,mBAAM,oBAAN,CAA6B,C;K;IAGxC,yC;MAIwB,SAApB,WAAoB,Y;MAApB,kB;K;  
IAEJ,4B;MAM6D,QAAM,gBAAN,C;aACzD,C;UADyD,OACpD,U;aACL,C;UAFyD,OAEpD,MAAM,UAAK,CA  
AL,CAAN,C;;UAFoD,OAGjD,mBAAM,qBAAoB,YAAy,gBAAZ,CAApB,CAAN,C;;K;IAGZ,yC;MAIwB,OAAp  
B,WAAoB,Y;MAApB,kB;K;IAEJ,4B;MAM4D,OAA6B,oBAA7B,mBAAM,oBAAN,CAA6B,C;K;IAEzF,yC;MAI  
wB,SAApB,WAAoB,Y;MAApB,kB;K;IAEJ,4B;MAMqD,QAAM,cAAN,C;aACjD,C;UADiD,OAC5C,U;aACL,C;  
UAFiD,OC/X8B,uB;;Ud+X9B,OAGzC,uB;;K;IAGZ,iC;MAMmE,4BAAC,SAAd,C;K;IAEnE,yC;MAKI,WAAoB,0  
B;MAApB,kB;K;IAEJ,kC;MAOI,Q;MAAA,IAAI,SAAK,UAAT,C;QAAA,OAAoB,MAAM,IAAN,C;;QAAqC,kB  
AApB,qBAAC,SAAd,C;QAA4B,wBAAS,UAAT,EAAqB,WAArB,C;QAAjE,OUhiBO,W;;MVgiBP,W;K;IAEJ,mC  
;MAOI,Q;MAAA,IAAI,SAAK,UAAT,C;QAAA,OAA0B,MAAN,KAAM,C;;QAAiC,kBAApB,qBAAC,SAAd,C;Q  
AA4B,4B;QAAne,OUziBO,W;;MVyiBP,W;K;IAEJ,mC;MAOI,Q;MAAA,IAAI,SAAK,UAAT,C;QAAA,OAA0B,  
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AOwB,kBAApB,qBAAC,SAAd,C;MAA4B,4B;MAA5B,OAA4C,oBU3jBrC,WV2jBqC,C;K;IAEhD,iC;MAOwB,k  
BAApB,qBAAC,SAAd,C;MAA4B,+B;MAA5B,OUpkBO,W;K;0FVukBX,2B;MAKI,sBAAI,IAAK,MAAT,EAAg  
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gD;MAAA,mC;QAKI,kBAAO,KAAP,C;O;KALJ,C;4FAQA,yB;MAAA,gD;MAAA,mC;QAKI,kBAAO,KAAP,C;  
O;KALJ,C;4FAQA,0B;MAKI,yBAAO,GAAP,C;K;IAGJ,kC;MAOwB,kBAAf,aAAL,SAAK,C;MAcCL,6B;MAc  
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MArCV,OAAgD,oBUhoBzC,WVgoByC,C;K;IAEpD,mC;MAQwB,kBAAf,aAAL,SAAK,C;MAoCK,YAAL,gBA  
AK,O;MApCV,OAAgD,oBUloBzC,WV0oByC,C;K;IAEpD,mC;MAQwB,kBAAf,aAAL,SAAK,C;MAmCK,YAA  
L,gBAAK,O;MANCV,OAAgD,oBUppBzC,WVopByC,C;K;4FAEpD,0B;MAMI,uBAAO,GAAP,C;K;8FAGJ,yB;  
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C;QAMc,UAAV,SAAK,KAAC,EAAU,IAAV,C;O;KANd,C;8FASA,yB;MAAA,sD;MAAA,kC;QAMc,UAAV,SA  
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C;UAFkD,gB;;UAAA,OAG1C,S;;K;oF6KtwBZ,yB;MAAA,8D;MAAA,8B;MAAA,qC;QAUiC,Q;QAA7B,OAA2  
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B,OAA2D,CAA9B,sEAA8B,oBAAU,QAAV,C;O;KAT/D,C;wFAWA,yB;MAAA,8D;MAAA,8B;MAAA,sC;QASi  
C,Q;QAA7B,OAA2D,CAA9B,sEAA8B,oBAAU,QAAV,C;O;KAT/D,C;4FAWA,8B;MAKI,SAAK,WAAI,OA AJ,  
C;K;4FAGT,yB;MAAA,gD;MAAA,sC;QAKS,OAAL,SAAK,EAAO,QAAP,C;O;KALT,C;4FAQA,yB;MAAA,gD;  
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QA,qC;MAIU,IAIe,I;MAHjB,kBADE,QACF,c;QAAiB,OAAO,yBAAO,QAAP,C;;QAEpB,aAAsB,K;QACT,0B;Q  
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C;K;IAqH/D,0C;MAII,UAAmB,8BAAT,QAAS,C;MACnB,09K0EwD,C8K1EjD,G9K0EkD,U8K1EID,IAAoB,4B  
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AO,wB;K;IAGf,kC;MACI,a9KmCwD,CAAC,mB;M8K1CzD,iB;MACA,OAAO,M;K;IAIX,2C;MAKkF,gCAAc,S  
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K,UAAAL,EAAmB,OAAnB,C;QAEJ,+B;;MAEJ,IAAI,aAAa,cAAjB,C;QACwB,oC;QAAiB,mB;QAARc,oE;UACI,  
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Q,OAAA,eAAS,K;K;iDACxC,iB;MAAkC,mCAAS,0BAAoB,KAApB,CAAT,C;K;;IAGT,gC;MAAyC,8B;MAAx  
C,0B;K;oFACH,Y;MAAQ,OAAA,eAAS,K;K;yCACxC,iB;MAAkC,mCAAS,0BAAoB,KAApB,CAAT,C;K;mCA  
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,I;;QAAkB,MAAM,8BAA0B,oBAAiB,KAAjB,2BAA2C,gBAAG,cAAH,CAA3C,OAA1B,C;K;IAGID,+B;MAK+  
C,gCAAqB,SAArB,C;K;IAE/C,iC;MAM6D,wBAAa,SAAb,C;K;;IxKpC7D,oD;MAQuF,wC;K;IARvF,8CASI,Y;  
MAAuC,8B;K;IAT3C,gF;IyKY8G,wC;MAAA,mB;QAAE,kBAAS,aAAT,C;O;K;IATH,yB;MASqG,oCAAS,sBA  
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O;MAT3C,8E;MyKiB2I,qD;QAAA,mB;UAAE,gBAAS,qBAAT,C;S;O;MAH7I,gC;QAGkI,kCAAS,mCAAT,C;O;  
KAHII,C;IACA,2B;MAQI,eAAe,6B;MACf,oBAA0B,+BAAN,KAAM,EAAwC,QAAxC,EAA+D,QAA/D,C;MAC  
1B,OAAO,Q;K;8FAGX,yB;MAAA,kD;MAAA,gC;QAGkI,gBAAS,aAAT,C;O;KAHII,C;IAGB0C,yB;K;+CAoBtC,  
kC;MAOI,IAAI,uCAA0B,QAAS,UAAvC,C;QAAkD,M;MACID,OAAO,sBAAS,QAAS,WAAIB,e;K;+CAGX,kC;  
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5B,sBAAyC,I;MACzC,gBAAoC,I;K;gDAEpC,Y;MACI,OAAO,IAAP,C;QACI,QAAM,YAAN,C;eACI,C;YAAA,  
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ACX,gBAAW,I;QACX,IzH/FR,oBDgDQ,W0H+CY,kB1H/CZ,CChDR,C;;K;6CyHmGA,Y;MACU,IASe,I;MATrB  
,QAAM,YAAN,C;aACI,C;aAAA,C;UAA5C,OAAO,qB;aAC7C,C;UACI,eAAQ,C;UACR,OAAO,kCAAE,O;aAE1  
B,C;UACI,eAAQ,C;UACR,aACa,mF;UACb,mBAAy,I;UACZ,OAAO,M;;UAEH,MAAM,yB;;K;uDAItB,Y;MACI  
,IAAI,CAAC,cAAL,C;QAAgB,MAAM,6B;;QAA8B,OAAO,W;K;2DAG/D,Y;MAA4C,QAAM,YAAN,C;aACxC,  
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1D,C;;K;IAOqC,4E;MAAA,oB;QACzC,wCAAW,C;QAAX,OACA,yB;O;K;oDALR,+B;MACI,mBAAy,K;MACZ  
,eAAQ,C;MACR,OAA6C,0CAAtC,c;K;IAUsC,+E;MAAA,oB;QACzC,wCAAW,C;QAAX,OACA,yB;O;K;yDAN  
R,kC;MACI,IAAI,CAAC,QAAS,UAAAd,C;QAAyB,M;MACzB,sBAAe,Q;MACf,eAAQ,C;MACR,OAA6C,6CAAt  
C,c;K;2DAMX,kB;M1HjBO,Q;MADP,e0HoBI,M1HpBJ,C;MACO,Q0HmBH,M1HnBG,+D;M0HoBH,eAAQ,C;K  
;kGAIR,Y;MAAQ,0C;K;;IzK1LhB,oD;MAQuF,wC;K;IARvF,8CASI,Y;MAAuC,8B;K;IAT3C,gF;sFAAA,yB;MA  
AA,kC;MAAA,0C;MAAA,kD;QAQuF,wC;O;MARvF,4CASI,Y;QAAuC,8B;O;MAT3C,8E;MAAA,2B;QAQuF,2  
C;O;KARvF,C;IAiBgE,+C;MAAA,mB;QAAE,sB;O;K;IALIE,kC;MAKuD,OAAkB,2CAAT,+BAAS,E;K;IAEzE,8  
B;MAK6D,OAAI,Qb2rPtD,YAAQ,Ca3rP0C,GAAWB,eAAxB,GAAsD,WAAT,QAAS,C;K;IAEnH,yB;MAG8C,kC

;K;IAE9C,yB;MAAA,6B;K;uCACI,Y;MAA6C,kC;K;2CAC7C,a;MAA4B,kC;K;2CAC5B,a;MAA4B,kC;K;;;IAHh  
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,KAAT,C;K;IAGX,+B;MAQqD,6BAAS,4BAAT,C;K;IAW0B,+G;MAAA,wC;MAAA,6B;MAAA,yB;MAAA,0C;  
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;MACJ,OAAO,mBAAa,C;K;;2CAhC5B,Y;MAAuC,yD;K;;IA2C3C,qD;MAAY,0B;MAAmC,gC;K;IACJ,gF;MAA  
A,0D;MACnC,gBAAe,oCAAS,W;K;IEACxB,Y;MACI,OAAO,6CAAY,aAAS,OAArB,C;K;OEAEX,Y;MACI,OA  
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B,Y;MAAqD,wD;K;;IAMBzD,0D;MACI,4B;MACA,4B;MACA,4B;K;IAEuC,sE;MAAA,gD;MACnC,iBAAgB,gC  
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C,C;K;+DAGX,Y;MACI,OAAO,cAAU,UAAV,IAAuB,cAAU,U;K;;yCARhD,Y;MAAuC,uD;K;;IAc3C,6D;MACI,  
0B;MACA,gC;MACA,0B;K;IAEuC,4E;MAAA,sD;MACnC,gBAAe,kCAAS,W;MACxB,oBAAiC,I;K;+DAEjC,Y;  
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K;8EyKjTA,4B;MAUI,OAAK,iBAAL,SAAK,EAAU,KAAV,C;K;ICTT,iC;K;;;oDayDI,0C;MAiB+D,oB;QAAA,2C;aAjB/D,kG;K;;IAoBJ,uC;MAAA,e;MAAA,iB;MAAA,uB;K;IAAA,qC;MAAA,wC;O;MASI,4E;MAMA,8E;MAOA,4E;MAOA,kE;K;;IApBA,mD;MAAA,2B;MAAA,2C;K;;IAMA,oD;MAAA,2B;MAAA,4C;K;;IAOA,mD;MAAA,2B;MAAA,2C;K;;IAOA,8C;MAAA,2B;MAAA,sC;K;;IA7BJ,iC;MAAA,+K;K;;IAAA,sC;MAAA,a;aAAA,c;UAAA,gD;aAAA,e;UAAA,iD;aAAA,c;UAAA,gD;aAAA,S;UAAA,2C;;UAAA,oE;;K;;oFAqCA,mB;K;;;;;;;;;;;;;;;;I7HmBiD,gD;MAAA,oB;QACzC,WAAW,sBAAmB,YAAF,CAAE,CAAnB,C;QACX,cAAM,IAAN,C;QADA,OA EA,IAAK,a;O;K;;;IAthb,+B;K;;iFAUA,yB;MAAA,4B;MAAA,mC;QAMI,6BDgDQ,WChDkB,KDgDIB,CChDR,C;O;KANJ,C;2GAQA,yB;MAAA,4B;MDgDQ,kD;MChDR,uC;QAOI,6BDgDQ,WAAO,cChDW,SDgDX,CAAP,CChDR,C;O;KAPI,C;+FAUA,yB;MAAA,kC;MAAA,mD;MAAA,yE;QASI,sC;QAAA,4C;O;MATJ,iGAWY,Y;QAAQ,2B;OAXpB,E;MAAA,0DAaQ,kB;QACI,wBAAW,MAAX,C;O;MadZ,sF;MAAA,sC;QASI,0D;O;KATJ,C;IAiBA,gD;MAaI,4BAA0D,YAAzC,wCAA6B,UAA7B,CAAYC,CAA1D,EAAyE,yBAAzE,C;K;IAEJ,4D;MAcI,4BAAoE,YAAAnD,0CAA6B,QAA7B,EAAuC,UAAvC,CAAmD,CAApE,EAAmF,yBAAnF,C;K;IAEJ,+C;MAU6C,YAAzC,wCAA6B,UAA7B,CAAYC,CAtEzC,oBDgDQ,WCSBsD,kBDtBtD,CChDR,C;K;IAyEJ,2D;MAWuD,YAAAnD,0CAA6B,QAA7B,EAAuC,UAAvC,CAAmD,CAPFnD,oBDgDQ,WCoCgE,kBDpChE,CChDR,C;K;IAuFJ,+C;MAYI,OAA6C,8BAAtC,c;K;8EAZX,yB;MAAA,oE;MAAA,6E;MAyID,gD;QAAA,oB;UAcZC,WAAW,sBAAmB,YAAF,CAAE,CAAnB,C;UACX,cAAM,IAAN,C;UADA,OAEA,IAAK,a;S;O;MAfb,sC;QAYW,mBAAsC,8BAAtC,6B;QAAP,OAAO,kD;O;KAZX,C;qGA0BI,yB;MAAA,2D;MAAA,mB;QACI,MAAM,6BAAoB,0BAApB,C;O;KADV,C;;M8HzIA,yC;;IAAA,uC;MAAA,2C;K;;IAAA,mD;MAAA,kD;QAAA,iC;;MAAA,2C;K;+EakBA,wB;K;oDAaA,e;MAK2C,IAAI,IAAJ,EAGK,M;MAL5C,IAAI,+CAAJ,C;QAEI,OAAW,GAAl,kBAAS,IAAK,IAAd,CAAR,GAA4B,cAAI,OAAJ,GAAl,iBAAQ,IAAR,CAAJ,yCAA5B,GAAYD,I;;MAGpE,OAAW,8CAA4B,GAAhC,GAaQc,8EAArC,GAAoD,I;K;yDAI/D,e;MAGI,IAAI,+CAAJ,C;QACI,OAAW,GAAl,kBAAS,IAAK,IAAd,CAAJ,IAA0B,GAAl,iBAAQ,IAAR,CAAJ,QAA9B,GAAYD,mCAAZD,GAAoF,I;;MAE/F,OAAW,8CAA4B,GAAhC,GAaQc,mCAArC,GAAgE,I;K;;;ICtChD,oD;MACf,cAAc,GAAl,kBAAS,OAAQ,IAAjB,C;MACIB,IAAI,YAAY,mCAAhB,C;QADA,OACuC,O;;QAEEnC,kBAAkB,oBAAQ,yCAAR,C;QACIB,IAAI,mBAAJ,C;UAJJ,OAI6B,oBAAgB,OAAhB,EAAyB,OAAzB,C;;UACrB,WAAW,OAAQ,kBAAS,yCAAT,C;UAL3B,OAMY,SAAS,mCAAAb,GAAoC,oBAAgB,OAAhB,EAAyB,WAAzB,CAApC,GACI,oBAAgB,oBAAgB,IAAhB,EAAzB,OAAhB,EAAgD,WAAhD,C;;K;8CAdxB,mB;MAKI,OAAI,YAAY,mCAAhB,GAAuC,IAAvC,GACI,OAAQ,cAAK,IAAL,EA AW,4BAAAX,C;K;;;qDAiCz,e;MAEyB,Q;MADrB,OACI,OAAA,IAAK,IAAL,EAAy,GA AZ,CAAJ,GAAqB,0EAArB,GAAoC,I;K;sDAExC,8B;MACI,iBAAU,OAAV,EAAmB,IAAnB,C;K;0DAEJ,e;MACI,OAAI,OAAA,IAAK,IAAL,EAAy,GA AZ,CAAJ,GAAqB,mCAArB,GAAgD,I;K;;;IC1DP,8C;MAAC,wB;K;kFAAA,Y;MAAA,yB;K;;IAiCe,wD;MAEjE,kC;MAEA,4BAAqC,mDAAJ,GAakD,OAAQ,qBAA1D,GAA0E,O;K;4DAE3G,mB;MAA6C,+BAAS,OAAAT,C;K;6DAC7C,e;MAA8C,eAAQ,IAAR,IAAgB,8BAAe,G;K;;IAGjF,+C;MAW2C,IAAI,IAAJ,EAGV,M;MAL7B,IAAI,+CAAJ,C;QAEI,OAAW,GAAl,kBAAS,SAAK,IAAd,CAAR,GAA4B,cAAI,OAAJ,GAAl,iBAAQ,SAAR,CAAJ,yCAA5B,GAAYD,I;;MAGpE,OAAW,SAAK,IAAL,KAAa,GA AjB,GAAsB,mFAATB,GAAqC,I;K;IAGhD,6C;MAUI,IAAI,+CAAJ,C;QACI,OAAW,GAAl,kBAAS,SAAK,IAAd,CAAJ,IAA0B,GAAl,iBAAQ,SAAR,CAAJ,QAA9B,GAAYD,mCAAZD,GAAoF,S;;MAE/F,OAAW,SAAK,IAAL,KAAa,GA AjB,GAAsB,mCAATB,GAAiD,S;K;IAG5D,iC;MAAA,qC;MAKI,4B;K;oDACA,Y;MAAiC,0C;K;kDAEjC,e;MAAYD,W;K;mDACzD,8B;MAA4E,c;K;mDAC5E,mB;MAAwE,c;K;uDACxE,e;MAA8D,W;K;+CAC9D,Y;MAAsC,Q;K;+CACtC,Y;MAAYC,8B;K;;;IAb7C,6C;MAAA,4C;QAAA,2B;;MAAA,qC;K;IAqB8B,wC;MAC1B,kB;MACA,wB;K;4CAGA,e;MAGQ,Q;MAFJ,UAAU,I;MACV,OAAO,IAAP,C;QACI,YAAA,GAAl,UAAJ,aAAY,GA AZ,W;UAAwB,W;;QACxB,WAAW,GAAl,O;QACf,IAAI,oCAAJ,C;UACI,MAAM,I;;UAEN,OAAO,iBAAK,GAAL,C;;K;6CAKnB,8B;MACI,iBAAU,WAAK,cAAK,OAAL,EAAC,SAAd,CAAf,EAAyC,cAAzC,C;K;iDAEJ,e;UAGW,I;MAFP,+BAAQ,GAAR,U;QAAoB,OAAO,W;;MAC3B,cAAc,WAAK,kBAAS,GAAT,C;MAEf,gBAAY,WAAZ,C;QAAoB,W;WACpB,gBAAY,mCAAZ,C;QAAqC,qB;;QAC7B,2BAAgB,OAAhB,EAAyB,cAAzB,C;MAHZ,W;K;uCAOJ,Y;MAIc,IAAI,IAAJ,Q;MAHV,UAAU,I;MACV,WAAW,C;MACX,OAAO,IAAP,C;QACU,uBAAI,OAAJ,GAAl,OAAJ,gC;QAAA,mB;UAAgC,OAAO,I;;QAA7C,MAAM,M;QACN,mB;;K;2CAIR,mB;MACI,+BAAI,OAAQ,IAAZ,GAAoB,OAApB,C;K;8CAEJ,mB;MAQ4B,Q;MAPxB,UAAU,O;MACV,OAAO,IAAP,C;QACI,IAAI,CAAC,gBAAS,GAAl,UAAb,CAAL,C;UAA4B,OAAO,K;QACnC,WAAW,GAAl,O;QACf,IAAI,oCAAJ,C;UACI,MAAM,I;;UAEN,OAAO,gBAAS,0EA

AT,C;;;K;uCAKnB,iB;MACI,gBAAS,KAAT,KAakB,yCAA4B,KAAM,SAAN,KAAGB,AAA5C,IAAsD,KAAM,e  
AAy,IAAZ,CAA9E,C;K;yCAEJ,Y;MAA+B,OAAK,SAAL,WAAK,CAAL,GAA0B,SAAR,cAAQ,CAA1B,I;K;IA  
GZ,uD;MACX,OAAI,G5JyHoC,YAAU,C4JzHID,GAAMB,OAAQ,WAA3B,GAA6C,GAAF,UAAQ,O;K;yCAF3D  
,Y;MACI,aAAM,kBAAK,EAAL,EAAS,+BAAT,CAAN,GAEL,G;K;IAMO,8E;MAAA,6B;QAAyB,Q;QAAT,iBA  
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A+B,CAA/B,O;MACf,gBAAY,CAAZ,C;MACA,kBAAK,kBAAL,EAAW,oDAAX,C;M/KtFJ,IAAI,E+KuFM,YA  
AS,C/KvFf,CAAJ,C;QACI,cAdW,e;QAeX,MAAM,6BAAsB,OAAQ,WAA9B,C;M+KuFN,OAAO,+BAAW,qDA  
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C;;;MAAA,oD;K;yDAIA,Y;MAA0C,gBAAT,a;M7Lm9YrB,Q;MADhB,kB6Ll9YmD,mC;M7Lm9YnD,wBAAGB,S  
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E;MA4BI,MAAM,wBAAoB,sEAApB,C;K;8GA5BV,yB;MAAA,2D;MAAA,sC;QA4BI,MAAM,6BAAoB,sEAAp  
B,C;O;KA5BV,C;IA0CoC,mC;MAAQ,4D;K;IAE5C,4C;MAAA,e;MAAA,iB;MAAA,uB;K;IAAA,0C;MAAA,6C;  
O;MAK0C,oG;MAAQb,gF;MAAW,4E;K;IAAhC,+D;MAAA,gC;MAAA,uD;K;IAAQb,qD;MAAA,gC;MAAA,6  
C;K;IAAW,mD;MAAA,gC;MAAA,2C;K;IAL1E,sC;MAAA,sJ;K;IAAA,2C;MAAA,a;AAAA,qB;UAAA,4D;aA  
AA,W;UAAA,kD;aAAA,S;UAAA,gD;UAAA,qF;K;6ECnDA,yB;MAAA,0B;MAAA,mC;QAGsD,OAAiC,OAA  
3B,SAAL,GAAuB,KAAS,C;O;KAHvF,C;2EAKA,yB;MAAA,0B;MAAA,mC;QAGqD,OAAgC,OAA1B,SAAL,G  
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C;O;KAHvF,C;6EAKA,yB;MAAA,0B;MAAA,4B;QAGqC,OAAqB,OAAp,CAAR,SAAE,C;O;KAH1D,C;+EAMA  
,yB;MAAA,4B;MAAA,mC;QAGyD,OAAiC,QAA3B,SAAL,GAAuB,KAAS,C;O;KAH1F,C;6EAKA,yB;MAAA,4  
B;MAAA,mC;QAGwD,OAAgC,QAA1B,SAAL,GAAuB,KAAS,C;O;KAHxF,C;+EAKA,yB;MAAA,4B;MAAA,m  
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AQA,0B;K;IAOA,sB;K;IAOA,4B;K;IAOA,6C;K;IA+BuC,wE;MAEnC,uB;QAAA,UAAsB,E;MACtB,qB;QAA  
A,8B;MACA,2B;QAAA,qE;MACA,yB;QAAA,YAAqB,E;MAJrB,sB;MACA,sB;MACA,kB;MACA,8B;MACA,0  
B;K;IAGJ,iD;MAAA,e;MAAA,iB;MAAA,uB;K;IAAA,+C;MAAA,kD;O;MAKI,wG;MACA,wG;MACA,8F;K;I  
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C;MAAA,6K;K;IAAA,gD;MAAA,a;AAAA,kB;UAAA,8D;aAAA,kB;UAAA,8D;aAAA,a;UAAA,yD;UAAA,6E;;  
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;MAAA,6F;MAAA,4E;QAUI,wC;QAAS,2C;O;MAVb,mEAWQ,wC;QAA6E,sBAAS,QAAT,EAAMB,QAANB,EA  
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6B;;K;;;iEA+CA,6B;;K;ICrDuC,0C;MACvC,uBAAoB,Y;K;wDAEPB,wC;MAM6F,W;K;uDAE7F,wC;K;oDA  
MA,6B;MACI,OAAO,oB;K;oDAGX,oC;MACI,eAAe,IAAK,gB;MACpB,IAAI,CAAC,0BAAa,QAAb,EAAuB,QA  
AvB,EAAiC,KAAjC,CAAL,C;QACI,M;MAEJ,uBAAa,K;MACb,yBAAY,QAAZ,EAAsB,QAATB,EAAGC,KAAh  
C,C;K;4EC9BR,wC;MAqBI,OAAO,e;K;4EAGX,+C;MAuBI,cAAI,KAAJ,C;K;4EAIJ,wC;MAmBI,OAAO,cAAI,  
OAAJ,C;K;4EAGX,+C;MAqBI,cAAI,OAAJ,EAAa,KAAb,C;K;IC/FJ,kB;MA6PI,4B;K;+BAtoA,Y;MAOiC,6BAA  
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BkB,Q;MAPd,mBAAiB,IAAjB,EAAuB,KAAvB,C;MACA,QAAQ,eAAQ,IAAR,C;MACR,IAAI,eAAI,CAAR,C;Q  
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BAAO,CAAP,MAAY,+BAAI,CAAJ,EAAZ,eAAqB,CAArB,C;UACT,MAAM,C;;QAEV,OAAO,SAAO,GAAP,C;  
;QAEp,OAAO,IAAP,C;UACI,YAAU,e;UACV,IAAW,IAAP,0CAAkB,KAAIB,CAAJ,C;YAA6B,OAAO,K;;K;m  
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AD,IAAwB,CAAxB,I;MAEZ,mBAAe,SAAf,C;MrLzEJ,iBAAc,CAAd,UqL0EW,KrL1EX,U;QqL2EQ,QAAQ,c;Q  
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BAAS,QAAT,C;K;uCAC1D,Y;MAA8B,OAAA,oBAAc,U;K;+CAC5C,iB;MAAwC,OAAA,oBAAc,iBAAQ,KAA  
R,C;K;+CACtD,uB;MAAmD,OAAA,oBAAc,iBAAQ,IAAR,EAAC,KAAd,C;K;wCAEjE,Y;MAAgC,OAAA,oBAA  
c,W;K;gDAC9C,iB;MAA2C,OAAA,oBAAc,kBAAS,KAAT,C;K;gDACzD,uB;MAAuD,OAAA,oBAAc,kBAAS,I  
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,iB;MAAiD,OAAA,oBAAc,oBAAW,KAAX,C;K;kDAC/D,uB;MAA+D,OAAA,oBAAc,oBAAW,IAAX,EAAiB,K  
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GAAa,CAAb,IAArB,C;WAC9B,IAAA,KAAM,MAAN,GAAC,WAAAd,C;QAH8C,OAGf,0BAAQ,KAAM,MAAN,  
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uD,QAAQ,IxLtV/D,CAAJ,C;QACI,cwLqVuE,+B;QxLpVvE,MAAM,gCAAYB,OAAQ,WAAjC,C;;K;IwLqVd,yC;  
MxLvVI,IAAI,EwLuVyD,sBAAQ,IAAR,KxLvVzD,CAAJ,C;QACI,cwLsVyE,+B;QxLrVzE,MAAM,gCAAYB,OA  
AQ,WAAjC,C;;K;IwLsVd,yC;MxLxVI,IAAI,EwLwV6D,QAAQ,IxLxVrE,CAAJ,C;QACI,cwLuV6E,+B;QxLrV7E  
,MAAM,gCAAYB,OAAQ,WAAjC,C;;K;IwLwVd,yC;MAAYD,oCAA0B,IAA1B,qBAAiC,KAAjC,kB;K;ICrXzD,6

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,QAAQ,CAAR,IAAf,C;cAAP,mB;;UAER,iBAAO,E;;;QAOP,OAA0C,yB;O;KAJ9C,C;IAMA,kC;MAhEI,iBAaiB  
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,MAAM,gCAAYB,mDAAGD,SAAZE,C;;K;IAGIB,0C;MAUsD,QAAM,SAAN,C;aACID,M;UADkD,OACxC,I;aA  
CV,O;UAFkD,OAevC,K;;UAFuC,OAG1C,I;K;I+Kr8CZ,sB;MAAA,0B;MAII,aAC+B,e;MAC/B,cACgC,e;MACH  
C,WAC6B,e;MAC7B,YAC8B,e;MAC9B,eACiC,e;MACjC,YAC8B,gB;MAC9B,aAC+B,gB;MAC/B,YAC8B,gB;  
MAC9B,aAC+B,gB;MAC/B,eACiC,gB;MACjC,iBACmC,gB;MACnC,qBAEuC,gB;MACvC,sBAEwC,gB;MACx  
C,kBACoC,gB;MACpC,cACgC,gB;MACHC,iBACmC,gB;MACnC,iBACmC,gB;MACnC,iBACmC,gB;MACnC,Y  
AC8B,gB;MAC9B,aAC+B,iB;MAC/B,aAC+B,iB;MAC/B,uBACyC,iB;MACzC,wBAC0C,iB;MAC1C,sBACwC,i  
B;MACxC,uBACyC,iB;MACzC,wBAC0C,iB;MAC1C,sBACwC,iB;MACxC,cACgC,iB;MACHC,oBACsC,iB;MA  
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B,iB;MAC5B,mBACqC,iB;MACrC,gBACKC,iB;MACiC,mBACqC,iB;MACrC,sBACwC,iB;MAExC,sBAGwC,gB  
;MAExC,uBAGyC,gB;K;;;IA7F7C,kC;MAAA,iC;QAAA,gB;;MAAA,0B;K;;;;2FCuE0C,Y;MAAQ,oCAAa,IA  
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B,G;;UpMuEwB,MAAM,6BAA8B,CoMtEnE,mBAAGB,SpMsEmD,YAA9B,C;;K;IoMnEvD,4C;MACwE,QAAM,  
SAAN,C;aACpE,I;UADoE,6C;aAEpE,I;UAFoE,8C;aAGpE,I;UAHoE,8C;aAIpE,G;UAJoE,yC;aAKpE,G;UALoE,y  
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GQ,KAAC,eAAD,C;QAEQ,IADE,OACF,Q;UAHZ,sC;;UAIoB,MAAM,gCAAyB,4EAAqD,OAARd,CAAzB,C;;Q  
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;MAAkC,OAAA,iCAAoB,W;K;6CADhC,Y;MAAA,yC;K;;;IAN1B,4C;MAAA,2C;QAAA,0B;;MAAA,oC;K;IAW  
A,gC;MAAA,oC;K;;;IAAA,4C;MAAA,2C;QAAA,0B;;MAAA,oC;K;;IAKJ,oB;K;qCAcI,oB;MAK8D,4BAAiB,IA  
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4C;MAAiD,mB;MAAhD,gB;MAAoB,4B;K;4CAC/C,Y;MAAsC,OAAA,SAAK,aAAL,cAAoB,eAApB,C;K;6CAEt  
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mB;MAA7G,4B;MAA6B,8B;MAAGD,sB;K;+DACpG,Y;MAAsC,OAAgC,aAA/B,iBAAW,OAAX,UAAoB,gBAA  
pB,CAA+B,EAAW,iBAAW,KAAtB,CAAhC,cAA8D,AA9D,C;K;gEACtC,oB;MAAkD,+CAAa,gBAAb,EAAwB,  
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AS,KAApC,C;K;;IAUO,wC;MAAC,gB;K;IAOf,gF;MAAkH,mB;MAAjH,4B;MAA+B,8B;MAAkD,sB;K;mEAC1  
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,C;K;oEACtC,oB;MAAkD,mDAAe,gBAAf,EAA0B,iBAA1B,EAAsC,0BAAS,QAAT,CAAtC,C;K;;iDAGtD,Y;M  
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AAZ,eAAyB,CAA3D,C;UAA8D,gBAAS,QAAT,C;QAC9D,iB;;QAEA,YAAy,QAAS,kBAAS,SAAT,C;QAErB,m  
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AVf,qB;K;0CAcJ,oB;MACI,MAAM,6BAAsB,iDAA+C,cAA/C,qCAA0E,QAA1E,MAAtB,C;K;;qFC7Fd,yB;MAA  
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B;MAuOA,6B;MAvOA,wB;QAEuD,OCGF,cAAU,CD2O5B,cAAU,SAAL,GAAiB,GAAtB,CC3O4B,MAAK,GA  
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,C;O;KANpD,C;wFAOA,yB;MA+LA,kBAS6D,sB;MAT7D,+B;MgB/LA,oD;MhBAA,wB;QAMsD,OgBAA,ehBk  
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B;MC7LA,4C;MAoCA,wB;QAMiD,OAxCG,WAAW,IAAX,EDoMjB,cC5J4B,KD4JIB,KAAL,GAAiB,GAAtB,C  
CpMiB,C;O;KAKCpD,C;kGAOA,yB;MCmJA,6B;MD9LA,4C;MA2CA,wB;QAMkD,OA/CE,WAAW,IAAX,ECq  
MjB,cDtJ6B,KCsJnB,KAAL,GAAiB,KAAtB,CDrMiB,C;O;KAYCpD,C;kGAOA,yB;MAIDA,4C;MAkDA,wB;QA  
MgD,OAtDI,WAAW,IAAX,EAsDA,KAtDA,C;O;KAgDpD,C;kGAOA,yB;MAkKA,kBAS6D,sB;MAT7D,+B;Mg  
BxNA,8C;MhBsDA,wB;QAMkD,OgB1DI,YhB+NjB,eAAW,oBAAL,SAAK,CAAL,iBAAN,CgB/NiB,EhB0DoB,  
KgB1DpB,C;O;KhBoDtD,C;wFAQA,yB;MD4HA,6B;MCxKA,kD;MDuOJ,0B;MAAA,+B;MC3LI,wB;QAQ6C,O  
D8LR,eAAW,OC5OI,cAAc,IAAd,ED2KjB,cC7HmB,KD6HT,KAAL,GAAiB,GAAtB,CC3KiB,CAkLf,KD0DW,C  
AAX,C;O;KCTMrC,C;wFASA,yB;MCoHA,6B;MDzKA,kD;MCwOJ,4B;MAAA,iC;MDnLI,wB;QAQ+C,OCsLR,g  
BAAY,QD7OC,cAAc,IAAd,EC4KjB,cDrHqB,KCqHX,KAAL,GAAiB,KAAtB,CD5KiB,CA4Lb,KCiDY,CAAZ,C;  
O;KD9LvC,C;wFASA,yB;MA9DA,kD;MA8DA,wB;QAQ2C,OAhES,cAAc,IAAd,EAAGEL,KAHEK,C;O;KAwDpD  
,C;wFASA,yB;MA+HA,kBAS6D,sB;MAT7D,+B;MgB/LA,oD;MhBgEA,wB;QAQ6C,OgBIES,ehBkMjB,eAAW,o  
BAAL,SAAK,CAAL,iBAAN,CgBIMiB,EhBkEU,KgBIEV,C;O;KhB0DtD,C;wEAUA,yB;MAAA,6B;MAAA,mB;  
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AV,C;O;KANzC,C;gGAQA,yB;MAAA,8C;MAAA,wB;QAE6D,0BAAU,IAAV,EAAGB,KAHb,C;O;KAF7D,C;  
wFAIA,yB;MAAA,6B;MAAA,2B;QAOMD,qBAAK,aAAS,QAAAd,C;O;KAPnD,C;wFASA,yB;MAAA,6B;MAAA,  
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EAIA,yB;MAAA,0B;MAAA,mB;QAUmC,OAAK,OAAL,SAAK,C;O;KAVxC,C;gFAWA,yB;MAAA,4B;MAAA,  
mB;QAUqC,OAAK,QAAL,SAAK,C;O;KAV1C,C;4EAWA,Y;MASiC,gB;K;8EACjC,yB;MAAA,kBASqD,sB;MA  
TrD,mB;QASmC,OAAK,oBAAL,SAAK,CAAL,iB;O;KATnC,C;gFAWA,yB;MDwDJ,0B;MAAA,+B;MCxDi,mB;  
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QASuC,OCiDA,gBAAY,QDjDZ,SCiDY,CAAZ,C;O;KD1DvC,C;8EAUA,Y;MAEmC,W;K;gFACnC,yB;MAAA,k  
BAS6D,sB;MAT7D,+B;MAAA,mB;QASqC,sBAAW,oBAAL,SAAK,CAAL,iBAAN,C;O;KATrC,C;gFAWA,yB;  
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AAA,c;MAG2D,qD;MAH3D,a;K;4BAAA,iB;MAAA,2IAG2D,oCAH3D,G;K;sEAoWA,yB;MAAA,6B;MAAA,4B  
;QAWwC,qBAAU,SAAV,C;O;KAXxC,C;wEAYA,yB;MAAA,6B;MAAA,4B;QAWyC,qBAAU,SAAV,C;O;KAX  
zC,C;wEAYA,yB;MAAA,6B;MAAA,4B;QAUuC,qBAAK,SAAL,C;O;KAVvC,C;wEAWA,yB;MAAA,6B;MAAA  
,4B;QAWwC,qBAAK,SAAK,QAAV,C;O;KAXxC,C;uEAaA,yB;MAAA,gD;MAAA,4B;QASyC,oBAAkB,SAAlB,  
C;O;KATzC,C;wEAUA,yB;MAAA,gD;MAAA,4B;QAS0C,oBAAa,SAAb,C;O;KAT1C,C;Igc3ZA,4B;MACqB,sB  
;K;sCAKjB,iB;MAM4C,OhCuXT,SgCvXS,aAAQ,KAAR,ChCuXT,C;K;sCgCrXnC,wB;MAOI,aAAQ,KAAR,IAA  
iB,KhCyQY,K;K;iFgCrQH,Y;MAAQ,OAAA,YAAQ,O;K;mCAE9C,Y;MAC6E,8BAAS,YAAT,C;K;IAGvD,mC;  
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C;;QgCjWgD,MAAM,2BAAuB,YAAM,WAA7B,C;K;;yCAGzF,mB;MAIS,Q;MAAL,IAAI,eAAC,0EAAD,0AAJ,  
C;QAAgC,OAAO,K;MAEvC,OAAe,WAAW,YAAQ,EAAS,OhCmPK,KgCnPd,C;K;8CAGnB,oB;MACY,Q;MAA  
2B,gBAA3B,gE;MAA2B,c;;Qf0nDvB,U;QADhB,IAAI,wCAAsB,mBAA1B,C;UAAqC,aAAO,I;UAAP,e;;QACrB,  
6B;QAAhB,OAAgB,gBAAhB,C;UAAgB,2B;Ue1nD6B,2Bf0nDR,Oe1nDQ,O;UAAA,W;YAAsB,oBAAR,YAAQ,  
Ef0nD9B,OjB34CJ,KgC/OkC,C;;Uf0nD7C,IAAI,0AAJ,C;YAAyB,aAAO,K;YAAP,e;;QAC/C,aAAO,I;;Me3nDH  
,iB;K;kCAGJ,Y;MAAkC,OAAA,IAAK,QAAQ,OAAb,KAAqB,C;K;;IA/CvD,qC;MAAA,mD;MACgC,sBAAK,eA  
AS,IAAT,CAAL,C;MADhC,Y;K;;,;mCAPJ,Y;MAAA,OAKqB,oDALrB,M;K;mCAAA,Y;MAAA,c;MAKqB,wD;

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,C;O;KAXX,C;gFACa,oB;MAGkE,e;K;I6LnE5C,wC;MAsBIB,iC;MatBsD,2BAAgB,KAaHb,EAAuB,YAAvB,E  
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B,U7NwCqC,KAAjB,E6NxCX,K7NwCwC,KAA7B,C6NxCpB,K;MAAA,S;QAAkB,O7NwCE,Y6NxCF,K7NwC  
mB,KAAjB,E6NxC0,S7NwCsB,KAA7B,C6NxCF,K;MAAIB,W;K;kCAE9C,Y;MAKkC,O7NiCgC,Y6NjChC,U7  
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CAGJ,Y;MACI,OAAI,cAAJ,GAAe,EAAf,GAAwB,MAAK,U7NyQA,K6NzQL,QAAqB,S7NyQhB,K6NzQL,I;K;  
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A0B,4BAAK,UAA/B,C;K;;IAFIC,2C;MAAA,0C;QAAA,yB;;MAAA,mC;K;;IAYJ,oD;MA4CI,uC;MatCI,IAAI,S  
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GuB,I;K;yCAEvB,Y;MAAgD,mCAAwB,UAAxB,EAA+B,SAA/B,EAAqC,SAArC,C;K;wCAEHd,Y;MAMqC,OA  
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K;IAEHf,qC;MAAA,yC;K;kEACI,sC;MAQ2F,2BAAgB,UAAhB,EAA4B,QAA5B,EAA5C,IAAtC,C;K;;IAT/F,iD;  
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C,S6Nkd7C,W7NIDuD,KAAK,G6NkdDpD,W7NID+D,KAAX,IAAf,C;;M6NoDjD,OAAO,K;K;;IC3Hf,yB;K;mCA  
II,Y;MAA4B,uB;K;;IAMhC,0B;K;oCAII,Y;MAA4B,wB;K;;IAMhC,wB;K;kCAII,Y;MAA4B,sB;K;;IAMhC,yB;K;  
mCAII,Y;MAA4B,uB;K;;I9M5BP,qB;MAErB,6B;MAFwD,gB;K;IAExD,2B;MAAA,+B;MACI,iBAGoC,a;MAEp  
C,iBAGoC,c;MAEpC,kBAGmC,C;MAEnC,iBAGkC,E;K;;IANtC,uC;MAAA,sC;QAAA,qB;;MAAA,+B;K;sGAs  
BA,yB;MjBqRA,WAS6D,0B;MAT7D,+B;MiB7PA,gD;MAxBA,wB;QAM0D,OAYBS,aAAa,IAAK,KAAIB,EAA  
8B,CjB+P5D,eAAW,oBiBxRyB,KjBwR9B,KAAK,CAAL,UAAN,CiB/P4D,MAA9B,C;O;KA/BnE,C;sGAQA,yB;  
Mf8QA,aAS6D,0B;MAT7D,+B;Me9PA,gD;MAhBA,wB;QAM2D,OaiBQ,aAAa,IAAK,KAAIB,EAA8B,CfgQ5D,  
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,sB;MAT7D,+B;MgBjRA,gD;MARA,wB;QAMyD,OASU,aAAa,IAAK,KAAIB,EAA8B,ChBmR5D,eAAW,oBgB5  
RwB,KhB4R7B,KAAK,CAAL,iBAAN,CgBnR4D,MAA9B,C;O;KAFnE,C;kGAQA,yB;MAAA,gD;MAAA,wB;Q  
AOmE,oBAAa,IAAK,KAAIB,EAAwB,KAAM,KAA9B,C;O;KAPnE,C;4FASA,yB;MjBoPA,WAS6D,wB;MAT7D  
,+B;MiBpPA,wB;QAEuD,OASA,eAAM,IAAK,KAAK,KAAW,CjBkP7C,eAAW,oBiB3PiB,KjB2PtB,KAAK,CAA  
L,UAAN,CiBIP6C,MAAX,CAAhB,C;O;KAXvD,C;4FAGA,yB;MfkPA,aAS6D,0B;MAT7D,+B;MelPA,wB;QAE  
wD,OAMD,eAAM,IAAK,KAAK,KAAW,CfmP7C,eAAW,oBezPkB,KfyPvB,KAAK,CAAL,YAAN,CenP6C,MA  
AX,CAAhB,C;O;KARvD,C;4FAGA,yB;MhBkQA,kBAS6D,sB;MAT7D,+B;MgBlQA,wB;QAEsD,OAGC,eAAM,  
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C;O;KALvD,C;4FAGA,yB;MAAA,+B;MAAA,wB;QAEuD,sBAAM,IAAK,KAAK,KAAK,KAAM,KAAX,CAAH  
B,C;O;KAFvD,C;8FAIA,yB;MjBuOA,WAS6D,wB;MAT7D,+B;MiBvOA,wB;QAEwD,OASA,eAAM,IAAK,KAA  
K,UAAy,CjBqO/C,eAAW,oBiB9OmB,KjB8OxB,KAAK,CAAL,UAAN,CiBrO+C,MAAZ,CAAhB,C;O;KAXxD,  
C;8FAGA,yB;MfqOA,aAS6D,0B;MAT7D,+B;MerOA,wB;QAEyD,OAMD,eAAM,IAAK,KAAK,UAAy,CfsO/C,e  
AAW,oBe5OoB,Kf4OzB,KAAK,CAAL,YAAN,CetO+C,MAAZ,CAAhB,C;O;KARxD,C;8FAGA,yB;MhBqPA,kB  
AS6D,sB;MAT7D,+B;MgBrPA,wB;QAEuD,OAGC,eAAM,IAAK,KAAK,UAAy,ChByP/C,eAAW,oBgB5PkB,Kh

B4PvB,KAAK,CAAL,iBAAN,CgBzP+C,MAAZ,CAAhB,C;O;KALxD,C;8FAGA,yB;MAAA,+B;MAAA,wB;QA  
EwD,sBAAM,IAAK,KAAK,UAAM,KAAM,KAAZ,CAAhB,C;O;KAFxD,C;8FAIA,yB;MjB0NA,WAS6D,wB;M  
AT7D,+B;MiB1NA,wB;QAEwD,OASA,eAAM,IAAK,KAAK,UAAY,CjBwN/C,eAAW,oBiBjOmB,KjBiOxB,KA  
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A,wB;QAEyD,OAMD,eAAM,IAAK,KAAK,UAAY,CfyN/C,eAAW,oBe/NoB,Kf+NzB,KAAK,CAAL,YAAN,Cez  
N+C,MAAZ,CAAhB,C;O;KARxD,C;8FAGA,yB;MhBwOA,kBAS6D,sB;MAT7D,+B;MgBxOA,wB;QAEuD,OA  
GC,eAAM,IAAK,KAAK,UAAY,ChB4O/C,eAAW,oBgB/OkB,KhB+OvB,KAAK,CAAL,iBAAN,CgB5O+C,MAA  
Z,CAAhB,C;O;KALxD,C;8FAGA,yB;MAAA,+B;MAAA,wB;QAEwD,sBAAM,IAAK,KAAK,UAAM,KAAM,K  
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,yB;Mf2MA,aAS6D,0B;MAT7D,+B;MerMA,8C;MANA,wB;QAEuD,OAMD,YAAY,IAAZ,Ef4MjB,eAAW,oBeI  
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CgB/NiB,C;O;KALtD,C;0FAGA,yB;MAAA,8C;MAAA,wB;QAEsD,mBAAY,IAAZ,EAaKB,KAAIB,C;O;KAFtD  
,C;0FAIA,yB;MjBgMA,WAS6D,wB;MAT7D,+B;MiB3KA,oD;MArBA,wB;QAMsD,OAqBA,eAAe,IAAf,EjB8Kj  
B,eAAW,oBiBnMe,KjBmMpB,KAAK,CAAL,UAAN,CiB9KiB,C;O;KA3BtD,C;0FAOA,yB;Mf0LA,aAS6D,0B;M  
AT7D,+B;Me5KA,oD;MAdA,wB;QAMuD,OAcD,eAAe,IAAf,Ef+KjB,eAAW,oBe7LgB,Kf6LrB,KAAK,CAAL,Y  
AAN,Ce/KiB,C;O;KApBtD,C;0FAOA,yB;MhBsMA,kBAS6D,sB;MAT7D,+B;MgB/LA,oD;MAPA,wB;QAMqD,  
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A,yB;MAAA,oD;MAAA,wB;QAMsD,sBAaE,IAAf,EAAqB,KAArB,C;O;KANtD,C;oGAQA,yB;MjBmKA,WAS6  
D,wB;MAT7D,+B;MiBpMA,8C;MAiCA,wB;QAMkD,OArCI,YAAY,IAAZ,EjB2MjB,eAAW,oBiBtKgB,KjBsKr  
B,KAAK,CAAL,UAAN,CiB3MiB,C;O;KA+BtD,C;oGAOA,yB;Mf6JA,aAS6D,0B;MAT7D,+B;MerMA,8C;MAw  
CA,wB;QAMmD,OA5CG,YAAY,IAAZ,Ef4MjB,eAAW,oBehKiB,KfgKtB,KAAK,CAAL,YAAN,Ce5MiB,C;O;K  
AsCtD,C;oGAOA,yB;MhByKA,kBAS6D,sB;MAT7D,+B;MgBxNA,8C;MA+CA,wB;QAMiD,OAnDK,YAAY,IA  
AZ,EhB+NjB,eAAW,oBgB5Ke,KhB4KpB,KAAK,CAAL,iBAAN,CgB/NiB,C;O;KA6CtD,C;oGAOA,yB;MatDA,  
8C;MAsDA,wB;QAMkD,OA1DI,YAAY,IAAZ,EA0DA,KA1DA,C;O;KAoDtD,C;0FAQA,yB;MjBsIA,WAS6D,w  
B;MAT7D,+B;MiB3KA,oD;MjB4OJ,0B;MAAA,+B;MiBvMI,wB;QAQ6C,OjB0MP,eAAW,OiBjPK,eAAe,IAAf,E  
jB8KjB,eAAW,oBiBvIM,KjBuIX,KAAK,CAAL,UAAN,CiB9KiB,CA4KjB,KjBqEY,SAAX,C;O;KiBINtC,C;0FA  
SA,yB;Mf8HA,aAS6D,0B;MAT7D,+B;Me5KA,oD;Mf6OJ,4B;MAAA,iC;Me/LI,wB;QAQ+C,OfkMP,gBAAY,Qel  
PE,eAAe,IAAf,Ef+KjB,eAAW,oBe/HQ,Kf+Hb,KAAK,CAAL,YAAN,Ce/KiB,CAsLf,Kf4Da,SAAZ,C;O;Ke1MxC  
,C;0FASA,yB;MhBwIA,kBAS6D,sB;MAT7D,+B;MgB/LA,oD;MhBkQJ,6B;MgB3MI,wB;QAQ2C,OhB8MP,cgBv  
QkB,eAAe,IAAf,EhBkMjB,eAAW,oBgBzII,KhByIT,KAAK,CAAL,iBAAN,CgBIMiB,CAGMnB,KhBuEW,QAAV  
,C;O;KgBtNpC,C;0FASA,yB;MAhEA,oD;MAGEA,wB;QAQ6C,OAIES,eAAe,IAAf,EAkEL,KAIEK,C;O;KA0DtD  
,C;0EAUA,yB;MAAA,+B;MAAA,mB;QAM0C,sBAAM,SAAK,MAAX,C;O;KAN1C,C;0EAQA,yB;MAAA,+B;  
MAAA,mB;QAM0C,sBAAM,SAAK,MAAX,C;O;KAN1C,C;gGAQA,yB;MAAA,gD;MAAA,wB;QAE+D,2BAA  
W,IAAX,EAAiB,KAAjB,C;O;KAF/D,C;0FAIA,yB;MAAA,+B;MAAA,2B;QAOoD,sBAAM,oBAAS,QAAT,CAA  
N,C;O;KAPpD,C;0FASA,yB;MAAA,+B;MAAA,2B;QAOoD,sBAAM,6BAAU,QAAV,CAAN,C;O;KAPpD,C;0F  
ASA,yB;MAAA,+B;MAAA,wB;QAEuD,sBAAM,IAAK,KAAL,KAAC,KAAM,KAApB,CAAN,C;O;KAFnD,C;w  
FAGA,yB;MAAA,+B;MAAA,wB;QAEkD,sBAAM,IAAK,KAAL,IAAa,KAAM,KAAAnB,CAAN,C;O;KAFID,C;0F  
AGA,yB;MAAA,+B;MAAA,wB;QAEuD,sBAAM,IAAK,KAAL,KAAC,KAAM,KAApB,CAAN,C;O;KAFnD,C;0  
EAGA,yB;MAAA,+B;MAAA,mB;QAEiC,sBAAM,SAAK,MAAX,C;O;KAFjC,C;gFAIA,yB;MAAA,0B;MAAA,  
mB;QAUmC,OAAK,OAAL,SAAK,S;O;KAVxC,C;kFAWA,yB;MAAA,4B;MAAA,mB;QAUqC,OAAK,QAAL,S  
AAK,S;O;KAV1C,C;8EAWA,Y;MAU1C,OAAA,SAAK,Q;K;gFACtC,Y;MASmC,gB;K;kFAEnC,yB;MjBmEJ,0B;  
MAAA,+B;MiBnEI,mB;QASqC,OjBqEC,eAAW,OiBrEZ,SjBqEY,SAAX,C;O;KiB9EtC,C;oFAUA,yB;Mf0DJ,4B;  
MAAA,iC;Me1DI,mB;QASuC,Of4DC,gBAAY,Qe5Db,Sf4Da,SAAZ,C;O;KerExC,C;gFAUA,yB;MhBqEJ,6B;Mg  
BrEI,mB;QASmC,OhBuEC,cgBvED,ShBuEW,QAAV,C;O;KgBhFpC,C;kFAUA,Y;MAEqC,W;K;kFAErC,yB;MA  
SA,kD;MATA,mB;QAQqC,OASE,cAAc,SAAd,C;O;KAjBvC,C;oFASA,yB;MAAA,kD;MAAA,mB;QAQuC,qBA  
Ac,SAAd,C;O;KARvC,C;+BAUA,Y;MAAyC,qBAAc,SAAd,C;K;::;+BAnW7C,Y;MAAA,c;MAG4D,qD;MAH5D

,a;K;6BAAA,iB;MAAA,2IAG4D,oCAH5D,G;K;wEAuWA,yB;MAAA,+B;MAAA,4B;QAW0C,sBAAW,oBAAL, SAAK,CAAX,C;O;KAX1C,C;0EAYA,yB;MAAA,+B;MAAA,4B;QAW2C,sBAAW,oBAAL,SAAK,CAAX,C;O;K AX3C,C;0EAYA,yB;MAAA,+B;MAAA,4B;QAWyC,sBAAW,oBAAL,SAAK,CAAX,C;O;KAXzC,C;0EAYA,yB; MAAA,+B;MAAA,4B;QAU0C,sBAAM,SAAN,C;O;KAV1C,C;yEAYA,yB;MAAA,kD;MAAA,4B;QAS2C,qBAA mB,SAAnB,C;O;KAT3C,C;0EAUUA,yB;MAAA,kD;MAAA,4B;QAS4C,qBAAC,SAAd,C;O;KAT5C,C;liB9ZA,6B; MACqB,sB;K;uCAKjB,iB;MAM6C,OjBsYP,UiBtYO,aAAQ,KAAR,CjBsYP,C;K;uCiBpYtC,wB;MAOI,aAAQ,K AAR,IAAiB,KjBoRc,K;K;kFiBhRL,Y;MAAQ,OAAA,YAAQ,O;K;oCAE9C,Y;MAC8E,+BAAS,YAAT,C;K;IAGx D,oC;MAAiC,wB;MAAhC,oB;MACnB,eAAoB,C;K;4CACpB,Y;MAAyB,sBAAQ,YAAM,O;K;8CACvC,Y;MAA yD,Q;MAA9B,IAAI,eAAQ,YAAM,OAAIB,C;QAAA,OjBgXO,UiBhXiB,aAAM,mBAAN,EAAM,2BAAN,OjBgX jB,C;;QiBhX+C,MAAM,2BAAuB,YAAM,WAA7B,C;K;;0CAG3F,mB;MAIS,Q;MAAL,IAAI,eAAC,0EAAD,QA AJ,C;QAAiC,OAAO,K;MAExC,OAAe,WAAR,YAAQ,EAAS,OjB8PO,KiB9PhB,C;K;+CAGnB,oB;MACY,Q;MA A2B,gBAA3B,gE;MAA2B,c;;QhB0nDvB,U;QADhB,IAAI,wCAAsB,mBAA1B,C;UAAqC,aAAO,I;UAAP,e;;QA CrB,6B;QAAhB,OAAgB,gBAAhB,C;UAAgB,2B;UgB1nD6B,2BhB0nDR,OgB1nDQ,Q;UAAA,W;YAAuB,oBAA R,YAAQ,EhB0nD/B,ODh4CF,KiB1PiC,C;;UhB0nD9C,IAAI,OAAJ,C;YAAyB,aAAO,K;YAAP,e;;;QAC/C,aAAO ,I;;;MgB3nDH,iB;K;mCAGJ,Y;MAAkC,OAAA,IAAK,QAAQ,OAAb,KAAqB,C;K;;IA/CvD,sC;MAAA,oD;MAC gC,uBAAK,iBAAU,IAAV,CAAL,C;MADhC,Y;K;;;oCAPJ,Y;MAAA,OAKqB,qDALrB,M;K;oCAAA,Y;MAAA, c;MAKqB,wD;MALrB,a;K;kCAAA,iB;MAAA,2IAKqB,0CALrB,G;K;gFAyDA,yB;MAAA,yC;MAWSc,yC;QAA A,wB;UAAW,OAAA,aAAK,KAAL,CjByOV,K;S;O;MiBpPvC,6B;QAWI,OAAO,oBAAW,kBAAU,IAAV,EAAG B,uBAAhB,CAAX,C;O;KAXX,C;kFAcA,oB;MAGqE,e;K;I8LnE9C,2C;MAAsBnB,kC;MAtByD,4BAAiB,KAAjB, EAAwB,YAAxB,K;K;qFAC/B,Y;MAAQ,iB;K;4FACD,Y;MAAQ,gB;K;8CAEzC,iB;MAA+C,W/MgDoB,a+MhD pB,U/MgDsC,KAAIB,E+MhDX,K/MgDyC,KAA9B,C+MhDpB,K;MAAA,S;QAAkB,O/MgDE,a+MhDF,K/MgDo B,KAAIB,E+MhDO,S/MgDuB,KAA9B,C+MhDF,K;;MAAIB,W;K;qCAE/C,Y;MAKkC,O/MyCiC,a+MzCjC,U/M yCmD,KAAIB,E+MzCzB,S/MyCuD,KAA9B,C+MzCjC,I;K;oCAEIC,iB;MAEY,UAAwB,M;MADhC,8CAAwB,k BAAa,KAAM,UAAAnB,KACHB,2CAAS,KAAM,MAAf,cAAwB,6CAAQ,KAAM,KAAd,QAAxB,CADgB,CAAxB ,C;K;sCAGJ,Y;MACI,OAAI,cAAJ,GAAe,EAaf,GAAwB,M/M0QK,CARckB,U+MrOjB,U/MqO4B,KAAL,KAAo B,CAVzB,U+M3NP,U/M2Na,yB+M3NH,E/M2NG,CAAN,CAUyB,MAApB,CAAN,CAqCIB,MAAK,Q+M1QV,Q /M0QK,CARckB,U+MrOoB,S/MqOT,KAAL,KAAoB,CAVzB,U+M3N6B,S/M2NvB,yB+M3NgC,E/M2NhC,CAA N,CAUyB,MAApB,CAAN,CAqCIB,MAAK,Q+M1QV,I;K;sCAE5B,Y;MAAkC,OAAE,UAAF,qBAAU,S;K;IAE5 C,gC;MAAA,oC;MACI,aAC+B,iBAAW,6BAAM,UAAjB,EAA4B,6BAAM,UAAIC,C;K;;IAFnC,4C;MAAA,2C; QAAA,0B;;MAAA,oC;K;;IAYJ,qD;MA4CI,wC;MAtCI,IAAI,gBAAJ,C;QAAwB,MAAa,gCAAyB,wBAAzB,C;M ACrC,IAAI,sCAAJ,C;QAA4B,MAAa,gCAAyB,yEAAzB,C;MAG7C,aAG0B,K;MAE1B,YAGyB,4BAA0B,KAA1 B,EAAiC,YAAjC,EAA+C,IAA/C,C;MAEZB,YAGwB,I;K;0CAExB,Y;MAAiD,oCAAYB,UAAzB,EAAgC,SAAhC ,EAAcC,SAATC,C;K;yCAEjD,Y;MAMqC,OAAI,uBAAO,CAAX,G/Mf8B,a+MehB,U/MfkC,KAAIB,E+MeR,S/Mf sC,KAA9B,C+MehB,IAAd,G/Mf8B,a+MeE,U/MfgB,KAAIB,E+MeU,S/MfoB,KAA9B,C+MeE,I;K;wCAErE,iB; MAEY,UAAwB,M;MADhC,kDAA8B,kBAAa,KAAM,UAAAnB,KACTB,2CAAS,KAAM,MAAf,cAAwB,6CAAQ, KAAM,KAAd,QAAxB,KAA8C,kBAAQ,KAAM,KAAd,CADxB,CAA9B,C;K;0CAGJ,Y;MACI,OAAI,cAAJ,GAA e,EAaf,GAAwB,OAAM,M/MkND,CARckB,U+M7KX,U/M6KsB,KAAL,KAAoB,CAVzB,U+MnKD,U/MmKO,y B+MnKG,E/MmKH,CAAN,CAUyB,MAApB,CAAN,CAqCIB,MAAK,Q+MINJ,Q/MkND,CARckB,U+M7K0B,S/ M6Kf,KAAL,KAAoB,CAVzB,U+MnKmC,S/MmK7B,yB+MnKsC,E/MmKtC,CAAN,CAUyB,MAApB,CAAN,C AqCIB,MAAK,Q+MINJ,IAAN,SAAQF,cAAU,6BAAU,EAAY,CAAV,CAAYB,QAA9G,I;K;0CAE5B,Y;MAAkC, OAAI,uBAAO,CAAX,GAAgB,UAAF,qBAAU,SAAV,cAAqB,SAARB,WAAAd,GAAgD,UAAF,2BAAgB,SAAhB,c AA6B,SAAD,aAA5B,W;K;IAEHF,sC;MAAA,0C;K;mEACI,sC;MAQ+F,4BAAiB,UAAjB,EAA6B,QAA7B,EAAu C,IAAvC,C;K;;IATnG,kD;MAAA,iD;QAAA,gC;;MAAA,0C;K;;IAObkC,qD;MAA0C,wB;MAC5E,sBAA2B,I;M AC3B,iBAAMc,kBAAO,CAA1C,G/MhDmE,a+MgDtB,K/MhDwC,KAAIB,E+MgDb,I/MhD2C,KAA9B,C+MgDt B,KAA7C,G/MhDmE,a+MgDH,K/MhDqB,KAAIB,E+MgDM,I/MhDwB,KAA9B,C+MgDH,K;MACHc,c/M0SsC, U+M1SnB,I/M0SmB,C;M+MzStC,cAAuB,cAAJ,GAAa,KAAb,GAAwB,mB;K;iDAE3C,Y;MAAkC,qB;K;mDAEI C,Y;MACI,YAAY,W;MACZ,IAAI,6BAAS,mBAAT,QAAJ,C;QACI,IAAI,CAAC,cAAL,C;UAAc,MAAa,6B;QAC 3B,iBAAU,K;;QAEV,c/M/C+C,U+M+C/C,W/M/C0D,KAAK,K+M+CvD,W/M/CkE,KAAX,CAAhB,C;;M+MiDn

D,OAAO,K;K;;wEC7Hf,yB;MAAA,8C;MAAA,uB;QAOI,OAAO,MAAM,CAAN,EAAS,CAAT,C;O;KAPX,C;wE  
AUA,yB;MAAA,8C;MAAA,uB;QAOI,OAAO,MAAM,CAAN,EAAS,CAAT,C;O;KAPX,C;wEAUA,yB;MAAA,8  
C;MAAA,uB;QAOI,OAAO,MAAM,CAAN,EAAS,CAAT,C;O;KAPX,C;wEAUA,yB;MAAA,8C;MAAA,uB;QAO  
I,OAAO,MAAM,CAAN,EAAS,CAAT,C;O;KAPX,C;oFC7BA,yB;MAAA,gD;MAAA,4B;QAM6C,OAAQ,ajO+R  
hB,ciO/RgB,C;O;KANrD,C;oGAQA,yB;M/GwCA,iB;M+GxCA,4B;QAMqD,O/GwCM,MAAO,OIH+O7B,ckH/O  
6B,C;O;K+G9CIE,C;sGAQA,yB;MAAA,kE;MAAA,4B;QAMsD,OAAQ,sBjO+QzB,ciO/QyB,C;O;KAN9D,C;8FA  
QA,yB;MAAA,0D;MjOwWA,6B;MiOxWA,4B;QAOmD,OjO2WZ,ciO3WoB,kBjOsQtB,ciOtQsB,CjO2WpB,C;O;  
KiOlXvC,C;4FASA,yB;MAAA,wD;MjO+VA,6B;MiO/VA,4B;QAOkD,OjOkWX,ciOlWmB,iBjO6PrB,ciO7PqB,C  
jOkWnB,C;O;KiOzWvC,C;gFASA,yB;MAAA,4C;MjOsVA,6B;MiOtVA,sC;QAayD,OjOmVIB,ciOnV0B,WjO8O  
5B,ciO9O4B,EAAW,QAAX,CjOmV1B,C;O;KiOhWvC,C;kFAGBA,yB;MAAA,8C;MjOsUA,6B;MiOtUA,sC;QAa  
0D,OjOmUnB,ciOnU2B,YjO8N7B,ciO9N6B,EAAZ,QAAX,CjOmU3B,C;O;KiOhVvC,C;oFAGBA,yB;MAAA,gD;  
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S,qBjNwNxB,ciNxNwB,C;O;KAN/D,C;sGAQA,yB;MAAA,kE;MAAA,4B;QAMuD,OAAS,sBjNgNzB,ciNhNyB,  
C;O;KANhE,C;8FAQA,yB;MAAA,0D;MjN6SA,+B;MiN7SA,4B;QAOqD,OjNgTX,eiNhToB,kBjNuMvB,ciNvMu  
B,CjNgTpB,C;O;KiNvT1C,C;4FASA,yB;MAAA,wD;MjNoSA,+B;MiNpSA,4B;QAOoD,OjNuSV,eiNvSmB,iBjN  
8LtB,ciN9LsB,CjNuSnB,C;O;KiN9S1C,C;+EASA,yB;MAAA,4C;MjN2RA,+B;MiN3RA,sC;QAa2D,OjNwRjB,ei  
NxR0B,WjN+K7B,ciN/K6B,EAAW,QAAX,CjNwR1B,C;O;KiNrS1C,C;iFAeA,yB;M/GgEA,4C;MIG4MA,+B;Mi  
N5QA,sC;QAa4D,OjNyQIB,ekGzMuB,WIGgG1B,ckGhG0B,EAAW,C+GhEK,Q/GgEL,IAAX,CIGyMvB,C;O;Ki  
NrR1C,C;oFAeA,yB;MIOWJI,6B;MkO1SJ,gD;MAKJA,4B;QAM8C,OAIJO,ajO+RhB,CDcE,cAAU,cAAL,GAAiB,  
GAAtB,CCdF,MiO/RgB,C;O;KA4IrD,C;oGAQA,yB;M/G1GA,iB;M+G0GA,4B;QAMsD,O/G1GK,MAAO,OnHu  
M3B,c2N1Ge,GAAY,GxG7FA,CwG6Fb,GAA6C,EAA7C,I;O;KOOzE,C;sGAQA,yB;MPbA,kE;MOaA,4B;QAMu  
D,OPbkB,sB3NkGIC,c2NIGgB,GAAW,GAAO,C;O;KOOzE,C;8FAQA,yB;MAAA,0D;MIO+LA,0B;MAAA,+B;M  
kO/LA,4B;QAOqD,OIOmMZ,eAAW,OkOnMS,kBlOgGnB,cAAL,GAAiB,GkOhGO,CIOmMT,CAAX,C;O;KkO1  
MzC,C;4FASA,yB;MAAA,wD;MIOsLA,0B;MAAA,+B;MkO/LA,4B;QAOoD,OIO0LX,eAAW,OkO1LQ,iBlOuFl  
B,cAAL,GAAiB,GkOvFM,CIO0LR,CAAX,C;O;KkOjMzC,C;gFAUA,yB;MAAA,4C;MIOqJA,+B;MkOrJA,sC;Q  
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MIOsIA,+B;MkOtIA,sC;QAa4D,OIOmIIB,ekOnI2B,YIOoC9B,ckOpC8B,EAAZ,QAAX,CIOmI3B,C;O;KkOhJ1C,  
C;oFAeA,yB;MhOgFI,6B;MgO3SJ,gD;MA2NA,4B;QAM+C,OA3NM,ajO+RhB,CCeE,cAAU,cAAL,GAAiB,KA  
AtB,CDfF,MiO/RgB,C;O;KAqNrD,C;oGAQA,yB;M/GnLA,iB;M+GmLA,4B;QAMuD,O/GnLI,MAAO,OjHkNzB,  
cyN3CpC,GAAY,KxGvKiD,CwGuK9D,GAA+C,EAA/C,I;O;KOMJ,C;sGAQA,yB;MPZA,kE;MOYA,4B;QAMw  
D,OPZoB,sBzNmCnC,cyNnCe,GAAY,KAAS,C;O;KOM5E,C;8FAQA,yB;MAAA,0D;MhOuHA,4B;MAAA,iC;M  
gOvHA,4B;QAOuD,OhO2HZ,gBAAY,QgO3HQ,kBhOwBrB,cAAL,GAAiB,KgOxBS,ChO2HR,CAAZ,C;O;KgOl  
I3C,C;4FASA,yB;MAAA,wD;MhO8GA,4B;MAAA,iC;MgO9GA,4B;QAOsD,OhOkHX,gBAAY,QgOIHO,iBhOep  
B,cAAL,GAAiB,KgOfQ,ChOkHP,CAAZ,C;O;KgOzH3C,C;gFAUA,yB;MAAA,4C;MhOyFA,iC;MgOzFA,sC;QA  
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pF7C,C;ICtRA,qC;MAEI,SIOuIoD,ckOvI3C,CIOul2C,EkOvIvC,CIOuIuC,C;MkOtIpD,SIOsIoD,ckOtI3C,CIOsI2C,  
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,SkOIFpB,EIOkF8B,KAAK,GkOIF9B,EIOkF0C,KAAZ,IAAf,CaBs,MAAK,GkOrExB,CIOqEmC,KAAZ,IAAf,C;  
K;IkOIEzD,qC;MACI,SINwIsD,ekNxI7C,CINwI6C,EkNxIzC,CINwIyC,C;MkNvItD,SINuIsD,ekNvI7C,CINuI6C,E  
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AX,GIN+EwD,UkN/EnC,EIN+E8C,KAAK,UkN/E9C,EIN+E0D,KAAZ,CAAhB,CkN/ExD,GINkEuD,UAAW,CAa  
V,UkN/EtB,EIN+EiC,KAAK,UkN/EjC,EIN+E6C,KAAZ,CAAhB,CaBU,MAAK,KkNIE3B,CINkEsC,KAAZ,CAA  
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# Jackson JSON processor

Jackson is a high-performance, Free/Open Source JSON processing library.

It was originally written by Tatu Saloranta (tatu.saloranta@iki.fi), and has been in development since 2007.

It is currently developed by a community of developers.

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jar/io/netty/channel/udt/nio/NioUdtByteAcceptorChannel.java
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\* /opt/cola/permits/1475197334\_1668596572.7727456/0/netty-handler-proxy-4-1-85-final-sources-jar/io/netty/handler/proxy/ProxyConnectException.java

\* /opt/cola/permits/1475197334\_1668596572.7727456/0/netty-handler-proxy-4-1-85-final-sources-jar/io/netty/handler/proxy/package-info.java

\* /opt/cola/permits/1475197334\_1668596572.7727456/0/netty-handler-proxy-4-1-85-final-sources-jar/io/netty/handler/proxy/ProxyHandler.java

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\* /opt/cola/permits/1475197334\_1668596572.7727456/0/netty-handler-proxy-4-1-85-final-sources-jar/META-INF/maven/io.netty/netty-handler-proxy/pom.xml

## 1.89 netty-transport-classes-kqueue

### 4.1.85.Final

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\* /opt/cola/permits/1475197320\_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-jar/io/netty/channel/kqueue/KQueueDomainDatagramChannel.java  
\* /opt/cola/permits/1475197320\_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-jar/io/netty/channel/kqueue/AbstractKQueueDatagramChannel.java  
\*  
/opt/cola/permits/1475197320\_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-jar/io/netty/channel/kqueue/KQueueDomainDatagramChannelConfig.java  
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\* /opt/cola/permits/1475197320\_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-jar/io/netty/channel/kqueue/KQueueServerSocketChannelConfig.java  
\* /opt/cola/permits/1475197320\_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-jar/io/netty/channel/kqueue/KQueueSocketChannel.java  
\*  
/opt/cola/permits/1475197320\_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-jar/io/netty/channel/kqueue/KQueueEventArray.java  
\* /opt/cola/permits/1475197320\_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-jar/io/netty/channel/kqueue/Native.java  
\* /opt/cola/permits/1475197320\_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-jar/io/netty/channel/kqueue/AbstractKQueueChannel.java  
\* /opt/cola/permits/1475197320\_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-jar/io/netty/channel/kqueue/AbstractKQueueStreamChannel.java  
\* /opt/cola/permits/1475197320\_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-jar/io/netty/channel/kqueue/KQueueDatagramChannelConfig.java  
\* /opt/cola/permits/1475197320\_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-jar/io/netty/channel/kqueue/KQueueRecvByteAllocatorHandle.java  
\* /opt/cola/permits/1475197320\_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-jar/io/netty/channel/kqueue/KQueueStaticallyReferencedJniMethods.java  
\*  
/opt/cola/permits/1475197320\_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-jar/io/netty/channel/kqueue/KQueueChannelConfig.java  
\* /opt/cola/permits/1475197320\_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-jar/io/netty/channel/kqueue/KQueueServerDomainSocketChannel.java  
\* /opt/cola/permits/1475197320\_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-jar/io/netty/channel/kqueue/KQueueChannelOption.java  
\* /opt/cola/permits/1475197320\_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-jar/io/netty/channel/kqueue/KQueueDomainSocketChannel.java  
\* /opt/cola/permits/1475197320\_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-jar/io/netty/channel/kqueue/KQueueServerSocketChannel.java  
\* /opt/cola/permits/1475197320\_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-jar/io/netty/channel/kqueue/BsdSocket.java  
\*

```

/opt/cola/permits/1475197320_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-
jar/io/netty/channel/kqueue/KQueueDomainSocketChannelConfig.java
* /opt/cola/permits/1475197320_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-
jar/io/netty/channel/kqueue/KQueueServerChannelConfig.java
* /opt/cola/permits/1475197320_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-
jar/io/netty/channel/kqueue/KQueueDatagramChannel.java
* /opt/cola/permits/1475197320_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-
jar/io/netty/channel/kqueue/AbstractKQueueServerChannel.java
* /opt/cola/permits/1475197320_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-
jar/io/netty/channel/kqueue/package-info.java
* /opt/cola/permits/1475197320_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-
jar/io/netty/channel/kqueue/KQueueSocketChannelConfig.java
*
/opt/cola/permits/1475197320_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-
jar/io/netty/channel/kqueue/KQueueEventLoop.java
* /opt/cola/permits/1475197320_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-
jar/io/netty/channel/kqueue/KQueue.java
* /opt/cola/permits/1475197320_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-
jar/io/netty/channel/kqueue/NativeLongArray.java
* /opt/cola/permits/1475197320_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-
jar/io/netty/channel/kqueue/AcceptFilter.java
* /opt/cola/permits/1475197320_1668596561.065882/0/netty-transport-classes-kqueue-4-1-85-final-sources-
jar/io/netty/channel/kqueue/KQueueEventLoopGroup.java

```

# 1.90 netty-codec-memcache 4.1.85.Final

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* /opt/cola/permits/1475197236_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-jar/META-

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INF/maven/io.netty/netty-codec-memcache/pom.xml

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\* /opt/cola/permits/1475197236\_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-jar/io/netty/handler/codec/memcache/binary/AbstractBinaryMemcacheMessage.java

\* /opt/cola/permits/1475197236\_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-jar/io/netty/handler/codec/memcache/AbstractMemcacheObjectEncoder.java

\*

/opt/cola/permits/1475197236\_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-jar/io/netty/handler/codec/memcache/MemcacheObject.java

\* /opt/cola/permits/1475197236\_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-jar/io/netty/handler/codec/memcache/binary/BinaryMemcacheRequestDecoder.java

\* /opt/cola/permits/1475197236\_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-jar/io/netty/handler/codec/memcache/binary/AbstractBinaryMemcacheEncoder.java

\* /opt/cola/permits/1475197236\_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-jar/io/netty/handler/codec/memcache/AbstractMemcacheObjectAggregator.java

\* /opt/cola/permits/1475197236\_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-jar/io/netty/handler/codec/memcache/binary/DefaultBinaryMemcacheResponse.java

\* /opt/cola/permits/1475197236\_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-jar/io/netty/handler/codec/memcache/MemcacheMessage.java

\*

/opt/cola/permits/1475197236\_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-jar/io/netty/handler/codec/memcache/binary/BinaryMemcacheOpCodes.java

\* /opt/cola/permits/1475197236\_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-jar/io/netty/handler/codec/memcache/binary/BinaryMemcacheRequestEncoder.java

\* /opt/cola/permits/1475197236\_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-jar/io/netty/handler/codec/memcache/binary/BinaryMemcacheMessage.java

\* /opt/cola/permits/1475197236\_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-jar/io/netty/handler/codec/memcache/binary/DefaultBinaryMemcacheRequest.java

\* /opt/cola/permits/1475197236\_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-jar/io/netty/handler/codec/memcache/FullMemcacheMessage.java



```

* /opt/cola/permits/1475197236_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-
jar/io/netty/handler/codec/memcache/binary/DefaultFullBinaryMemcacheResponse.java
*
/opt/cola/permits/1475197236_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-
jar/io/netty/handler/codec/memcache/binary/BinaryMemcacheResponseDecoder.java
* /opt/cola/permits/1475197236_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-
jar/io/netty/handler/codec/memcache/LastMemcacheContent.java
* /opt/cola/permits/1475197236_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-
jar/io/netty/handler/codec/memcache/AbstractMemcacheObject.java
* /opt/cola/permits/1475197236_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-
jar/io/netty/handler/codec/memcache/binary/BinaryMemcacheObjectAggregator.java
* /opt/cola/permits/1475197236_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-
jar/io/netty/handler/codec/memcache/binary/package-info.java
* /opt/cola/permits/1475197236_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-
jar/io/netty/handler/codec/memcache/binary/BinaryMemcacheResponseEncoder.java
*
/opt/cola/permits/1475197236_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-
jar/io/netty/handler/codec/memcache/binary/BinaryMemcacheClientCodec.java
* /opt/cola/permits/1475197236_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-
jar/io/netty/handler/codec/memcache/AbstractMemcacheObjectDecoder.java
* /opt/cola/permits/1475197236_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-
jar/io/netty/handler/codec/memcache/DefaultLastMemcacheContent.java
* /opt/cola/permits/1475197236_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-
jar/io/netty/handler/codec/memcache/binary/AbstractBinaryMemcacheDecoder.java
* /opt/cola/permits/1475197236_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-
jar/io/netty/handler/codec/memcache/MemcacheContent.java
* /opt/cola/permits/1475197236_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-
jar/io/netty/handler/codec/memcache/binary/BinaryMemcacheRequest.java
*
/opt/cola/permits/1475197236_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-
jar/io/netty/handler/codec/memcache/DefaultMemcacheContent.java
* /opt/cola/permits/1475197236_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-
jar/io/netty/handler/codec/memcache/binary/FullBinaryMemcacheRequest.java
* /opt/cola/permits/1475197236_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-
jar/io/netty/handler/codec/memcache/binary/DefaultFullBinaryMemcacheRequest.java
* /opt/cola/permits/1475197236_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-
jar/io/netty/handler/codec/memcache/binary/FullBinaryMemcacheResponse.java
* /opt/cola/permits/1475197236_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-
jar/io/netty/handler/codec/memcache/package-info.java
* /opt/cola/permits/1475197236_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-
jar/io/netty/handler/codec/memcache/binary/BinaryMemcacheResponse.java
* /opt/cola/permits/1475197236_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-
jar/io/netty/handler/codec/memcache/binary/BinaryMemcacheServerCodec.java
*
/opt/cola/permits/1475197236_1668596558.2160223/0/netty-codec-memcache-4-1-85-final-sources-
jar/io/netty/handler/codec/memcache/binary/BinaryMemcacheResponseStatus.java

```

# 1.91 netty-codec-stomp 4.1.85.Final

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* /opt/cola/permits/1475197292_1668596553.3857033/0/netty-codec-stomp-4-1-85-final-sources-jar/io/netty/handler/codec/stomp/StompSubframeDecoder.java
```

```
* /opt/cola/permits/1475197292_1668596553.3857033/0/netty-codec-stomp-4-1-85-final-sources-jar/io/netty/handler/codec/stomp/StompSubframe.java
```

```

*
/opt/cola/permits/1475197292_1668596553.3857033/0/netty-codec-stomp-4-1-85-final-sources-
jar/io/netty/handler/codec/stomp/StompSubframeAggregator.java
* /opt/cola/permits/1475197292_1668596553.3857033/0/netty-codec-stomp-4-1-85-final-sources-
jar/io/netty/handler/codec/stomp/package-info.java
* /opt/cola/permits/1475197292_1668596553.3857033/0/netty-codec-stomp-4-1-85-final-sources-
jar/io/netty/handler/codec/stomp/StompHeaders.java
* /opt/cola/permits/1475197292_1668596553.3857033/0/netty-codec-stomp-4-1-85-final-sources-
jar/io/netty/handler/codec/stomp/DefaultStompHeadersSubframe.java
* /opt/cola/permits/1475197292_1668596553.3857033/0/netty-codec-stomp-4-1-85-final-sources-
jar/io/netty/handler/codec/stomp/StompCommand.java
* /opt/cola/permits/1475197292_1668596553.3857033/0/netty-codec-stomp-4-1-85-final-sources-
jar/io/netty/handler/codec/stomp/StompFrame.java
* /opt/cola/permits/1475197292_1668596553.3857033/0/netty-codec-stomp-4-1-85-final-sources-
jar/io/netty/handler/codec/stomp/StompHeadersSubframe.java
*
/opt/cola/permits/1475197292_1668596553.3857033/0/netty-codec-stomp-4-1-85-final-sources-
jar/io/netty/handler/codec/stomp/StompContentSubframe.java
* /opt/cola/permits/1475197292_1668596553.3857033/0/netty-codec-stomp-4-1-85-final-sources-
jar/io/netty/handler/codec/stomp/StompSubframeEncoder.java
* /opt/cola/permits/1475197292_1668596553.3857033/0/netty-codec-stomp-4-1-85-final-sources-
jar/io/netty/handler/codec/stomp/DefaultStompContentSubframe.java
* /opt/cola/permits/1475197292_1668596553.3857033/0/netty-codec-stomp-4-1-85-final-sources-
jar/io/netty/handler/codec/stomp/DefaultStompFrame.java
* /opt/cola/permits/1475197292_1668596553.3857033/0/netty-codec-stomp-4-1-85-final-sources-
jar/io/netty/handler/codec/stomp/StompConstants.java
* /opt/cola/permits/1475197292_1668596553.3857033/0/netty-codec-stomp-4-1-85-final-sources-
jar/io/netty/handler/codec/stomp/DefaultLastStompContentSubframe.java
* /opt/cola/permits/1475197292_1668596553.3857033/0/netty-codec-stomp-4-1-85-final-sources-
jar/io/netty/handler/codec/stomp/DefaultStompHeaders.java
*
/opt/cola/permits/1475197292_1668596553.3857033/0/netty-codec-stomp-4-1-85-final-sources-
jar/io/netty/handler/codec/stomp/LastStompContentSubframe.java

```

## 1.92 netty-transport-sctp 4.1.85.Final

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\* /opt/cola/permits/1475197285\_1668596570.1165512/0/netty-transport-sctp-4-1-85-final-sources-jar/io/netty/channel/sctp/SctpChannelOption.java

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\* /opt/cola/permits/1475197285\_1668596570.1165512/0/netty-transport-sctp-4-1-85-final-sources-jar/io/netty/channel/sctp/package-info.java

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/opt/cola/permits/1475197285\_1668596570.1165512/0/netty-transport-sctp-4-1-85-final-sources-jar/io/netty/channel/sctp/oio/package-info.java

\* /opt/cola/permits/1475197285\_1668596570.1165512/0/netty-transport-sctp-4-1-85-final-sources-jar/io/netty/channel/sctp/nio/package-info.java

\* /opt/cola/permits/1475197285\_1668596570.1165512/0/netty-transport-sctp-4-1-85-final-sources-jar/io/netty/handler/codec/sctp/SctpOutboundByteStreamHandler.java

\* /opt/cola/permits/1475197285\_1668596570.1165512/0/netty-transport-sctp-4-1-85-final-sources-jar/io/netty/channel/sctp/oio/OioSctpServerChannel.java

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\* /opt/cola/permits/1475197285\_1668596570.1165512/0/netty-transport-sctp-4-1-85-final-sources-jar/com/sun/nio/sctp/AssociationChangeNotification.java

\*

/opt/cola/permits/1475197285\_1668596570.1165512/0/netty-transport-sctp-4-1-85-final-sources-jar/io/netty/channel/sctp/nio/NioSctpChannel.java

\* /opt/cola/permits/1475197285\_1668596570.1165512/0/netty-transport-sctp-4-1-85-final-sources-jar/com/sun/nio/sctp/SendFailedNotification.java

\* /opt/cola/permits/1475197285\_1668596570.1165512/0/netty-transport-sctp-4-1-85-final-sources-jar/com/sun/nio/sctp/SctpStandardSocketOptions.java

\* /opt/cola/permits/1475197285\_1668596570.1165512/0/netty-transport-sctp-4-1-85-final-sources-jar/com/sun/nio/sctp/SctpSocketOption.java

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jar/io/netty/channel/sctp/SctpMessage.java
* /opt/cola/permits/1475197285_1668596570.1165512/0/netty-transport-sctp-4-1-85-final-sources-
jar/com/sun/nio/sctp/AbstractNotificationHandler.java
* /opt/cola/permits/1475197285_1668596570.1165512/0/netty-transport-sctp-4-1-85-final-sources-
jar/io/netty/channel/sctp/nio/NioSctpServerChannel.java
*
/opt/cola/permits/1475197285_1668596570.1165512/0/netty-transport-sctp-4-1-85-final-sources-
jar/io/netty/channel/sctp/SctpServerChannelConfig.java
* /opt/cola/permits/1475197285_1668596570.1165512/0/netty-transport-sctp-4-1-85-final-sources-
jar/com/sun/nio/sctp/MessageInfo.java
* /opt/cola/permits/1475197285_1668596570.1165512/0/netty-transport-sctp-4-1-85-final-sources-
jar/com/sun/nio/sctp/PeerAddressChangeNotification.java
* /opt/cola/permits/1475197285_1668596570.1165512/0/netty-transport-sctp-4-1-85-final-sources-
jar/com/sun/nio/sctp/package-info.java
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jar/com/sun/nio/sctp/SctpChannel.java
* /opt/cola/permits/1475197285_1668596570.1165512/0/netty-transport-sctp-4-1-85-final-sources-
jar/com/sun/nio/sctp/SctpServerChannel.java
* /opt/cola/permits/1475197285_1668596570.1165512/0/netty-transport-sctp-4-1-85-final-sources-
jar/com/sun/nio/sctp/HandlerResult.java
* /opt/cola/permits/1475197285_1668596570.1165512/0/netty-transport-sctp-4-1-85-final-sources-
jar/com/sun/nio/sctp/Notification.java
*
/opt/cola/permits/1475197285_1668596570.1165512/0/netty-transport-sctp-4-1-85-final-sources-
jar/com/sun/nio/sctp/NotificationHandler.java
* /opt/cola/permits/1475197285_1668596570.1165512/0/netty-transport-sctp-4-1-85-final-sources-
jar/com/sun/nio/sctp/ShutdownNotification.java
* /opt/cola/permits/1475197285_1668596570.1165512/0/netty-transport-sctp-4-1-85-final-sources-
jar/com/sun/nio/sctp/UnsupportedOperationException.java
* /opt/cola/permits/1475197285_1668596570.1165512/0/netty-transport-sctp-4-1-85-final-sources-
jar/io/netty/channel/sctp/SctpChannel.java
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jar/io/netty/channel/sctp/SctpServerChannel.java
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jar/io/netty/channel/sctp/SctpChannelConfig.java
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jar/com/sun/nio/sctp/Association.java
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/opt/cola/permits/1475197285_1668596570.1165512/0/netty-transport-sctp-4-1-85-final-sources-
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/opt/cola/permits/1475197285\_1668596570.1165512/0/netty-transport-sctp-4-1-85-final-sources-jar/io/netty/handler/codec/sctp/SctpMessageCompletionHandler.java

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## 1.93 netty-resolver-dns-classes-macos

### 4.1.85.Final

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jar/io/netty/resolver/dns/macos/MacOSDnsServerAddressStreamProvider.java
* /opt/cola/permits/1475197252_1668596574.0739276/0/netty-resolver-dns-classes-macos-4-1-85-final-sources-
jar/io/netty/resolver/dns/macos/DnsResolver.java
*
/opt/cola/permits/1475197252_1668596574.0739276/0/netty-resolver-dns-classes-macos-4-1-85-final-sources-
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* /opt/cola/permits/1475197252_1668596574.0739276/0/netty-resolver-dns-classes-macos-4-1-85-final-sources-
jar/META-INF/maven/io.netty/netty-resolver-dns-classes-macos/pom.xml
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# 1.94 netty-transport-rxtx 4.1.85.Final

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jar/io/netty/channel/rxtx/package-info.java
* /opt/cola/permits/1475197306_1668596562.6155424/0/netty-transport-rxtx-4-1-85-final-sources-
jar/io/netty/channel/rxtx/RxtxDeviceAddress.java
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/opt/cola/permits/1475197306_1668596562.6155424/0/netty-transport-rxtx-4-1-85-final-sources-
jar/io/netty/channel/rxtx/RxtxChannelOption.java
* /opt/cola/permits/1475197306_1668596562.6155424/0/netty-transport-rxtx-4-1-85-final-sources-
jar/io/netty/channel/rxtx/RxtxChannelConfig.java
* /opt/cola/permits/1475197306_1668596562.6155424/0/netty-transport-rxtx-4-1-85-final-sources-
jar/io/netty/channel/rxtx/DefaultRxtxChannelConfig.java
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## 1.95 netty-codec-mqtt 4.1.85.Final

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jar/io/netty/handler/codec/mqtt/MqttMessageIdVariableHeader.java  
* /opt/cola/permits/1475197307_1668596554.8305566/0/netty-codec-mqtt-4-1-85-final-sources-  
jar/io/netty/handler/codec/mqtt/MqttVersion.java  
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\* /opt/cola/permits/1475197307\_1668596554.8305566/0/netty-codec-mqtt-4-1-85-final-sources-jar/io/netty/handler/codec/mqtt/MqttMessageBuilders.java

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jar/io/netty/handler/codec/mqtt/MqttQoS.java
* /opt/cola/permits/1475197307_1668596554.8305566/0/netty-codec-mqtt-4-1-85-final-sources-
jar/io/netty/handler/codec/mqtt/package-info.java
```

## 1.96 netty-codec-smtp 4.1.85.Final

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INF/maven/io.netty.netty-codec-smtp/pom.xml
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* /opt/cola/permits/1475197229_1668596564.088437/0/netty-codec-smtp-4-1-85-final-sources-
jar/io/netty/handler/codec/smtp/SntpRequest.java
* /opt/cola/permits/1475197229_1668596564.088437/0/netty-codec-smtp-4-1-85-final-sources-
jar/io/netty/handler/codec/smtp/package-info.java
*
/opt/cola/permits/1475197229_1668596564.088437/0/netty-codec-smtp-4-1-85-final-sources-
jar/io/netty/handler/codec/smtp/SntpResponseDecoder.java
* /opt/cola/permits/1475197229_1668596564.088437/0/netty-codec-smtp-4-1-85-final-sources-
jar/io/netty/handler/codec/smtp/SntpContent.java
* /opt/cola/permits/1475197229_1668596564.088437/0/netty-codec-smtp-4-1-85-final-sources-
jar/io/netty/handler/codec/smtp/SntpRequestEncoder.java
* /opt/cola/permits/1475197229_1668596564.088437/0/netty-codec-smtp-4-1-85-final-sources-
jar/io/netty/handler/codec/smtp/SntpCommand.java
* /opt/cola/permits/1475197229_1668596564.088437/0/netty-codec-smtp-4-1-85-final-sources-
jar/io/netty/handler/codec/smtp/DefaultSntpRequest.java
* /opt/cola/permits/1475197229_1668596564.088437/0/netty-codec-smtp-4-1-85-final-sources-
jar/io/netty/handler/codec/smtp/DefaultLastSntpContent.java
* /opt/cola/permits/1475197229_1668596564.088437/0/netty-codec-smtp-4-1-85-final-sources-
jar/io/netty/handler/codec/smtp/LastSntpContent.java
*
/opt/cola/permits/1475197229_1668596564.088437/0/netty-codec-smtp-4-1-85-final-sources-
jar/io/netty/handler/codec/smtp/SntpRequests.java
* /opt/cola/permits/1475197229_1668596564.088437/0/netty-codec-smtp-4-1-85-final-sources-
jar/io/netty/handler/codec/smtp/SntpUtils.java
* /opt/cola/permits/1475197229_1668596564.088437/0/netty-codec-smtp-4-1-85-final-sources-
jar/io/netty/handler/codec/smtp/DefaultSntpContent.java
* /opt/cola/permits/1475197229_1668596564.088437/0/netty-codec-smtp-4-1-85-final-sources-
jar/io/netty/handler/codec/smtp/SntpResponse.java
* /opt/cola/permits/1475197229_1668596564.088437/0/netty-codec-smtp-4-1-85-final-sources-
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# 1.97 netty-resolver-dns 4.1.85.Final

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jar/io/netty/resolver/dns/DnsQueryContext.java
* /opt/cola/permits/1475197327_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-
jar/io/netty/resolver/dns/DnsNameResolver.java
*
/opt/cola/permits/1475197327_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-
jar/io/netty/resolver/dns/DnsAddressResolverGroup.java
* /opt/cola/permits/1475197327_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-
jar/io/netty/resolver/dns/DnsServerAddresses.java
* /opt/cola/permits/1475197327_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-
jar/io/netty/resolver/dns/DnsResolveContext.java
* /opt/cola/permits/1475197327_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-
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\*

/opt/cola/permits/1475197327\_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-jar/io/netty/resolver/dns/NoopDnsCache.java

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\* /opt/cola/permits/1475197327\_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-jar/io/netty/resolver/dns/InflightNameResolver.java

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\* /opt/cola/permits/1475197327\_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-jar/io/netty/resolver/dns/DnsNameResolverException.java  
\*  
/opt/cola/permits/1475197327\_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-jar/io/netty/resolver/dns/RotationalDnsServerAddresses.java  
\* /opt/cola/permits/1475197327\_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-jar/io/netty/resolver/dns/DefaultDnsServerAddresses.java  
\* /opt/cola/permits/1475197327\_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-jar/io/netty/resolver/dns/ShuffledDnsServerAddressStream.java  
\* /opt/cola/permits/1475197327\_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-jar/io/netty/resolver/dns/DnsNameResolverBuilder.java

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* /opt/cola/permits/1475197327_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-
jar/io/netty/resolver/dns/DnsQueryContextManager.java
* /opt/cola/permits/1475197327_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-
jar/io/netty/resolver/dns/SequentialDnsServerAddressStream.java
* /opt/cola/permits/1475197327_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-
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jar/io/netty/resolver/dns/TcpDnsQueryContext.java
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- /opt/cola/permits/1475197327\_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-jar/io/netty/resolver/dns/NoopDnsQueryLifecycleObserverFactory.java
- \* /opt/cola/permits/1475197327\_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-jar/io/netty/resolver/dns/DnsServerAddressStreamProviders.java
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- \* /opt/cola/permits/1475197327\_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-jar/io/netty/resolver/dns/UniSequentialDnsServerAddressStreamProvider.java
- \* /opt/cola/permits/1475197327\_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-jar/io/netty/resolver/dns/DnsCacheEntry.java
- \* /opt/cola/permits/1475197327\_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-jar/io/netty/resolver/dns/DnsNameResolverTimeoutException.java
- \* /opt/cola/permits/1475197327\_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-jar/io/netty/resolver/dns/SingletonDnsServerAddressStreamProvider.java
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- \* /opt/cola/permits/1475197327\_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-jar/io/netty/resolver/dns/DnsQueryLifecycleObserverFactory.java
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\* /opt/cola/permits/1475197327\_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-jar/io/netty/resolver/dns/AuthoritativeDnsServerCache.java

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/opt/cola/permits/1475197327\_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-jar/io/netty/resolver/dns/DnsAddressDecoder.java

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/opt/cola/permits/1475197327\_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-jar/io/netty/resolver/dns/NameServerComparator.java

\* /opt/cola/permits/1475197327\_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-jar/io/netty/resolver/dns/AuthoritativeDnsServerCacheAdapter.java

\* /opt/cola/permits/1475197327\_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-jar/io/netty/resolver/dns/Cache.java

\* /opt/cola/permits/1475197327\_1668596568.7309096/0/netty-resolver-dns-4-1-85-final-sources-

# 1.98 netty-codec-haproxy 4.1.85.Final

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* /opt/cola/permits/1475197271_1668596556.8811443/0/netty-codec-haproxy-4-1-85-final-sources-
jar/io/netty/handler/codec/haproxy/HAProxyTLV.java
* /opt/cola/permits/1475197271_1668596556.8811443/0/netty-codec-haproxy-4-1-85-final-sources-
jar/io/netty/handler/codec/haproxy/HAProxySSLTLV.java
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\* /opt/cola/permits/1475197271\_1668596556.8811443/0/netty-codec-haproxy-4-1-85-final-sources-jar/io/netty/handler/codec/haproxy/HAProxyProtocolVersion.java

\*

```
/opt/cola/permits/1475197271_1668596556.8811443/0/netty-codec-haproxy-4-1-85-final-sources-
jar/io/netty/handler/codec/haproxy/HAProxyProxiedProtocol.java
* /opt/cola/permits/1475197271_1668596556.8811443/0/netty-codec-haproxy-4-1-85-final-sources-
jar/io/netty/handler/codec/haproxy/HAProxyProtocolException.java
* /opt/cola/permits/1475197271_1668596556.8811443/0/netty-codec-haproxy-4-1-85-final-sources-
jar/io/netty/handler/codec/haproxy/HAProxyMessageDecoder.java
* /opt/cola/permits/1475197271_1668596556.8811443/0/netty-codec-haproxy-4-1-85-final-sources-
jar/io/netty/handler/codec/haproxy/HAProxyCommand.java
* /opt/cola/permits/1475197271_1668596556.8811443/0/netty-codec-haproxy-4-1-85-final-sources-
jar/io/netty/handler/codec/haproxy/package-info.java
* /opt/cola/permits/1475197271_1668596556.8811443/0/netty-codec-haproxy-4-1-85-final-sources-
jar/io/netty/handler/codec/haproxy/HAProxyConstants.java
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# 1.99 netty-codec-dns 4.1.85.Final

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```
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jar/io/netty/handler/codec/dns/TcpDnsQueryEncoder.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DnsResponseDecoder.java
*
/opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DnsQueryEncoder.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/TcpDnsResponseDecoder.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DnsCodecUtil.java
```



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* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DnsOptEcsRecord.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/AbstractDnsOptPseudoRrRecord.java
*
 /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DefaultDnsOptEcsRecord.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DefaultDnsPtrRecord.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DnsPtrRecord.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
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\* /opt/cola/permits/1475197299\_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-jar/io/netty/handler/codec/dns/TcpDnsQueryDecoder.java

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jar/io/netty/handler/codec/dns/DefaultDnsQuery.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DefaultDnsQuestion.java
*
/opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DefaultDnsRawRecord.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DnsRawRecord.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DnsResponse.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DatagramDnsResponse.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DnsResponseCode.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/AbstractDnsMessage.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DnsQuery.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DnsQuestion.java
*
/opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DnsRecordType.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DefaultDnsResponse.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DnsRecord.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DatagramDnsQueryEncoder.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DefaultDnsRecordDecoder.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DatagramDnsQueryDecoder.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DnsRecordDecoder.java
*
/opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DnsOpCode.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DatagramDnsQuery.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DatagramDnsResponseEncoder.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/AbstractDnsRecord.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DatagramDnsResponseDecoder.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DnsSection.java

```

```
*
/opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DnsMessageUtil.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DnsRecordEncoder.java
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jar/io/netty/handler/codec/dns/package-info.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DefaultDnsRecordEncoder.java
* /opt/cola/permits/1475197299_1668596575.6103935/0/netty-codec-dns-4-1-85-final-sources-
jar/io/netty/handler/codec/dns/DnsMessage.java
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jar/io/netty/handler/codec/redis/AbstractStringRedisMessage.java  
\* /opt/cola/permits/1475197250\_1668596565.6194344/0/netty-codec-redis-4-1-85-final-sources-  
jar/io/netty/handler/codec/redis/BulkStringHeaderRedisMessage.java

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/opt/cola/permits/1475197250\_1668596565.6194344/0/netty-codec-redis-4-1-85-final-sources-  
jar/io/netty/handler/codec/redis/DefaultLastBulkStringRedisContent.java

\* /opt/cola/permits/1475197250\_1668596565.6194344/0/netty-codec-redis-4-1-85-final-sources-  
jar/io/netty/handler/codec/redis/package-info.java

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jar/io/netty/handler/codec/redis/RedisMessageType.java

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jar/io/netty/handler/codec/redis/RedisConstants.java

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jar/io/netty/handler/codec/redis/RedisMessagePool.java

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jar/io/netty/handler/codec/redis/FullBulkStringRedisMessage.java

\* /opt/cola/permits/1475197250\_1668596565.6194344/0/netty-codec-redis-4-1-85-final-sources-  
jar/io/netty/handler/codec/redis/IntegerRedisMessage.java

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*
/opt/cola/permits/1475197250_1668596565.6194344/0/netty-codec-redis-4-1-85-final-sources-
jar/io/netty/handler/codec/redis/DefaultBulkStringRedisContent.java
* /opt/cola/permits/1475197250_1668596565.6194344/0/netty-codec-redis-4-1-85-final-sources-
jar/io/netty/handler/codec/redis/SimpleStringRedisMessage.java
* /opt/cola/permits/1475197250_1668596565.6194344/0/netty-codec-redis-4-1-85-final-sources-
jar/io/netty/handler/codec/redis/ErrorRedisMessage.java
* /opt/cola/permits/1475197250_1668596565.6194344/0/netty-codec-redis-4-1-85-final-sources-
jar/io/netty/handler/codec/redis/RedisMessage.java
* /opt/cola/permits/1475197250_1668596565.6194344/0/netty-codec-redis-4-1-85-final-sources-
jar/io/netty/handler/codec/redis/ArrayRedisMessage.java
* /opt/cola/permits/1475197250_1668596565.6194344/0/netty-codec-redis-4-1-85-final-sources-
jar/io/netty/handler/codec/redis/BulkStringRedisContent.java
* /opt/cola/permits/1475197250_1668596565.6194344/0/netty-codec-redis-4-1-85-final-sources-
jar/io/netty/handler/codec/redis/FixedRedisMessagePool.java
*
/opt/cola/permits/1475197250_1668596565.6194344/0/netty-codec-redis-4-1-85-final-sources-
jar/io/netty/handler/codec/redis/RedisCodecUtil.java
* /opt/cola/permits/1475197250_1668596565.6194344/0/netty-codec-redis-4-1-85-final-sources-
jar/io/netty/handler/codec/redis/ArrayHeaderRedisMessage.java
* /opt/cola/permits/1475197250_1668596565.6194344/0/netty-codec-redis-4-1-85-final-sources-
jar/io/netty/handler/codec/redis/LastBulkStringRedisContent.java
* /opt/cola/permits/1475197250_1668596565.6194344/0/netty-codec-redis-4-1-85-final-sources-
jar/io/netty/handler/codec/redis/RedisDecoder.java
* /opt/cola/permits/1475197250_1668596565.6194344/0/netty-codec-redis-4-1-85-final-sources-
jar/io/netty/handler/codec/redis/RedisCodecException.java
* /opt/cola/permits/1475197250_1668596565.6194344/0/netty-codec-redis-4-1-85-final-sources-
jar/io/netty/handler/codec/redis/RedisEncoder.java
*
/opt/cola/permits/1475197250_1668596565.6194344/0/netty-codec-redis-4-1-85-final-sources-
jar/io/netty/handler/codec/redis/RedisArrayAggregator.java
* /opt/cola/permits/1475197250_1668596565.6194344/0/netty-codec-redis-4-1-85-final-sources-
jar/io/netty/handler/codec/redis/RedisBulkStringAggregator.java

```

# 1.101 netty-codec-socks 4.1.85.Final

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- \* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socksx/v4/package-info.java
  - \* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socksx/v5/Socks5InitialResponseDecoder.java
  - \*
  - /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socksx/v5/Socks5Message.java
  - \* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socksx/v4/Socks4ServerEncoder.java
  - \* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socksx/v5/Socks5PasswordAuthResponseDecoder.java
  - \* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socksx/v4/Socks4ClientEncoder.java
  - \* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socksx/AbstractSocksMessage.java
  - \* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socksx/v4/Socks4Message.java
  - \* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socksx/v5/Socks5CommandRequestDecoder.java
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  - /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socksx/v5/Socks5ServerEncoder.java
  - \* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socksx/v5/Socks5ClientEncoder.java
  - \* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socksx/v5/AbstractSocks5Message.java
  - \* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socksx/v5/Socks5CommandResponseDecoder.java
  - \* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socksx/v4/AbstractSocks4Message.java
  - \* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socksx/v5/Socks5InitialRequestDecoder.java
  - \*
  - /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socksx/package-info.java
  - \* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socksx/v5/Socks5PasswordAuthRequestDecoder.java
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```

```
* /opt/cola/permits/1475197264_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socks/SocksRequestType.java
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/opt/cola/permits/1475197264_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socks/SocksAddressType.java
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* /opt/cola/permits/1475197264_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socksx/v5/Socks5PasswordAuthStatus.java
```

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* /opt/cola/permits/1475197264_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-
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jar/io/netty/handler/codec/socks/SocksCmdStatus.java  
\* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-  
jar/io/netty/handler/codec/socks/SocksSubnegotiationVersion.java  
\* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-  
jar/io/netty/handler/codec/socksx/v5/Socks5AddressType.java  
\* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-  
jar/io/netty/handler/codec/socks/SocksMessageType.java  
\* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-  
jar/io/netty/handler/codec/socks/SocksAuthStatus.java  
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/opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-  
jar/io/netty/handler/codec/socks/SocksProtocolVersion.java  
\* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-  
jar/io/netty/handler/codec/socksx/v5/Socks5CommandStatus.java  
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jar/io/netty/handler/codec/socksx/v5/Socks5AuthMethod.java  
\* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-  
jar/io/netty/handler/codec/socksx/SocksVersion.java  
\* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-  
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jar/io/netty/handler/codec/socksx/v5/DefaultSocks5CommandRequest.java  
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\* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socks/SocksMessage.java  
\* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socks/SocksAuthResponseDecoder.java  
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\* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socks/SocksInitResponse.java  
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\* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socks/SocksInitRequest.java  
\* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socks/SocksCmdResponse.java  
\* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socks/SocksAuthResponse.java  
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\* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socksx/v4/Socks4CommandResponse.java  
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/opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socks/SocksAuthRequestDecoder.java  
\* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socks/UnknownSocksRequest.java  
\* /opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-

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jar/io/netty/handler/codec/socks/SocksResponse.java
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* /opt/cola/permits/1475197264_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-
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* /opt/cola/permits/1475197264_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-
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* /opt/cola/permits/1475197264_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-
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* /opt/cola/permits/1475197264_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-
jar/io/netty/handler/codec/socks/package-info.java
* /opt/cola/permits/1475197264_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-
jar/io/netty/handler/codec/socks/UnknownSocksResponse.java
* /opt/cola/permits/1475197264_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-
jar/io/netty/handler/codec/socksx/v5/DefaultSocks5PasswordAuthResponse.java
* /opt/cola/permits/1475197264_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-
jar/io/netty/handler/codec/socks/SocksMessageEncoder.java
* /opt/cola/permits/1475197264_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-
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/opt/cola/permits/1475197264\_1668596571.4906313/0/netty-codec-socks-4-1-85-final-sources-jar/io/netty/handler/codec/socksx/v5/Socks5AddressEncoder.java

## 1.102 netty-codec-xml 4.1.85.Final

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\* /opt/cola/permits/1475197222\_1668596559.7368999/0/netty-codec-xml-4-1-85-final-sources-jar/io/netty/handler/codec/xml/XmlAttribute.java  
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/opt/cola/permits/1475197222\_1668596559.7368999/0/netty-codec-xml-4-1-85-final-sources-jar/io/netty/handler/codec/xml/XmlEntityReference.java  
\* /opt/cola/permits/1475197222\_1668596559.7368999/0/netty-codec-xml-4-1-85-final-sources-jar/io/netty/handler/codec/xml/XmlCdata.java

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* /opt/cola/permits/1475197222_1668596559.7368999/0/netty-codec-xml-4-1-85-final-sources-
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jar/io/netty/handler/codec/xml/XmlDocumentEnd.java
* /opt/cola/permits/1475197222_1668596559.7368999/0/netty-codec-xml-4-1-85-final-sources-
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* /opt/cola/permits/1475197222_1668596559.7368999/0/netty-codec-xml-4-1-85-final-sources-
jar/io/netty/handler/codec/xml/XmlDocumentStart.java
* /opt/cola/permits/1475197222_1668596559.7368999/0/netty-codec-xml-4-1-85-final-sources-
jar/io/netty/handler/codec/xml/XmlDecoder.java
* /opt/cola/permits/1475197222_1668596559.7368999/0/netty-codec-xml-4-1-85-final-sources-
jar/io/netty/handler/codec/xml/XmlContent.java
* /opt/cola/permits/1475197222_1668596559.7368999/0/netty-codec-xml-4-1-85-final-sources-
jar/io/netty/handler/codec/xml/XmlCharacters.java
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```

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Found in path(s):

```
* /opt/cola/permits/1475197222_1668596559.7368999/0/netty-codec-xml-4-1-85-final-sources-jar/META-
INF/maven/io.netty/netty-codec-xml/pom.xml
```

# 1.103 zlib 1.2.13-r1

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## 1.104 jctools-core 4.0.1

### 1.104.1 Available under license :

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Manifest-Version: 1.0  
Bnd-LastModified: 1662622707903  
Build-Jdk-Spec: 11  
Bundle-Description: Java Concurrency Tools Core Library  
Bundle-License: <http://www.apache.org/licenses/LICENSE-2.0.txt>  
Bundle-ManifestVersion: 2  
Bundle-Name: Java Concurrency Tools Core Library  
Bundle-SymbolicName: org.jctools.core  
Bundle-Version: 4.0.1  
Created-By: Apache Maven Bundle Plugin 5.1.6  
Export-Package: org.jctools.maps;version="4.0.1",org.jctools.util;uses:="sun.misc";version="4.0.1",org.jctools.queues;version="4.0.1",org.jctools.queues.atomic;uses:="org.jctools.queues";version="4.0.1",org.jctools.queues.unpadded;uses:="org.jctools.queues";version="4.0.1",org.jctools.counters;version="4.0.1"  
Import-Package: sun.misc;resolution:=optional  
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.6))"  
Tool: Bnd-6.2.0.202202251641

Found in path(s):

\* /opt/cola/permits/1500645298\_1670406227.9308958/0/jctools-core-4-0-1-jar/META-INF/MANIFEST.MF

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\* /opt/cola/permits/1500645298\_1670406227.9308958/0/jctools-core-4-0-1-jar/META-

INF/maven/org.jctools/jctools-core/pom.xml

## 1.105 scala 2.12.10.v20190904-150159-VFINAL-61701c2

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not-a-legal-formal-parameter-tuple.scala:2: error: not a legal formal parameter.

Note: Tuples cannot be directly destructured in method or function parameters.

Either create a single parameter accepting the Tuple2,  
or consider a pattern matching anonymous function: `{ case (a, b) => ... }`  
val x: ((Int, Int) => Int) = (((a, b)) => a)  
^

not-a-legal-formal-parameter-tuple.scala:3: error: not a legal formal parameter.

Note: Tuples cannot be directly destructured in method or function parameters.

Either create a single parameter accepting the Tuple2,  
or consider a pattern matching anonymous function: `{ case (param1, param2) => ... }`  
val y: ((Int, Int, Int) => Int) = (((a, !)) => a)  
^

not-a-legal-formal-parameter-tuple.scala:4: error: not a legal formal parameter.

Note: Tuples cannot be directly destructured in method or function parameters.

Either create a single parameter accepting the  
Tuple3,  
or consider a pattern matching anonymous function: `{ case (param1, ..., param3) => ... }`  
val z: ((Int, Int, Int) => Int) = (((a, NotAPatternVariableName, c)) => a)  
^

three errors found

```
{% if site.thisScalaVersion != site.latestScalaVersion %}
```

```
<div class="version-notice">This is the specification of a previous version of Scala. See the <a href="{ {  
site.baseurl} }"/>{ { site.latestScalaVersion } }"/>Scala { { site.latestScalaVersion } } spec</a>.</div>
```

```
{% endif %}
```

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This product optionally depends on 'JBoss Marshalling', an alternative Java serialization API, which can be obtained at:

- \* LICENSE:
  - \* license/LICENSE.jboss-marshalling.txt (Apache License 2.0)
- \* HOMEPAGE:
  - \* <https://github.com/jboss-remoting/jboss-marshalling>

This product

optionally depends on 'Caliper', Google's micro-benchmarking framework, which can be obtained at:

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  - \* license/LICENSE.caliper.txt (Apache License 2.0)
- \* HOMEPAGE:
  - \* <https://github.com/google/caliper>

This product optionally depends on 'Apache Commons Logging', a logging framework, which can be obtained at:

- \* LICENSE:
  - \* license/LICENSE.common-logging.txt (Apache License 2.0)
- \* HOMEPAGE:
  - \* <https://commons.apache.org/logging/>

This product optionally depends on 'Apache Log4J', a logging framework, which can be obtained at:

- \* LICENSE:
  - \* license/LICENSE.log4j.txt (Apache License 2.0)
- \* HOMEPAGE:
  - \* <https://logging.apache.org/log4j/>

This product optionally depends on 'Aalto XML', an ultra-high performance non-blocking XML processor, which can be obtained at:

- \* LICENSE:
  - \* license/LICENSE.aalto-xml.txt (Apache License 2.0)
- \* HOMEPAGE:
  - \* <https://wiki.fasterxml.com/AaltoHome>

This product contains a modified version of 'HPACK', a Java implementation of the HTTP/2 HPACK algorithm written by Twitter. It can be obtained at:

- \* LICENSE:
  - \* license/LICENSE.hpack.txt (Apache License 2.0)
- \* HOMEPAGE:
  - \* <https://github.com/twitter/hpack>

This product contains a modified version of 'HPACK', a Java implementation of the HTTP/2 HPACK algorithm written by Cory Benfield. It can be obtained at:

- \* LICENSE:
  - \* license/LICENSE.hyper-hpack.txt (MIT License)
- \* HOMEPAGE:
  - \* <https://github.com/python-hyper/hpack/>

This product contains a modified version of 'HPACK', a Java implementation of the HTTP/2 HPACK algorithm written by Tatsuhiro Tsujikawa. It can be obtained at:

- \* LICENSE:
  - \* license/LICENSE.nghttp2-hpack.txt (MIT License)
- \* HOMEPAGE:
  - \* <https://github.com/nghttp2/nghttp2/>

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  - \* license/LICENSE.commons-lang.txt (Apache License 2.0)
- \* HOMEPAGE:
  - \* <https://commons.apache.org/proper/commons-lang/>

This product contains the Maven wrapper scripts from 'Maven Wrapper', that provides an easy way to ensure a user has everything necessary to run the Maven build.

- \* LICENSE:
  - \* license/LICENSE.mvn-wrapper.txt (Apache License 2.0)
- \* HOMEPAGE:
  - \* <https://github.com/takari/maven-wrapper>

This product contains the dnsinfo.h header file, that provides a way to retrieve the system DNS configuration on MacOS.

This private header is also used by Apple's open source mDNSResponder (<https://opensource.apple.com/tarballs/mDNSResponder/>).

- \* LICENSE:
  - \* license/LICENSE.dnsinfo.txt (Apple Public Source License 2.0)
- \* HOMEPAGE:
  - \* <https://www.opensource.apple.com/source/configd/configd-453.19/dnsinfo/dnsinfo.h>

This product optionally depends on 'Brotli4j', Brotli compression and decompression for Java., which can be obtained at:

- \* LICENSE:
  - \* license/LICENSE.brotli4j.txt (Apache License 2.0)
- \* HOMEPAGE:
  - \* <https://github.com/hyperxpro/Brotli4j>

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# 1.107 netty-transport-native-epoll 4.1.85.Final

## 1.107.1 Available under license :

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\*/

Found in path(s):

\* /opt/cola/permits/1501752506\_1670492918.1945343/0/netty-transport-native-epoll-4-1-85-final-sources-jar/netty\_epoll\_native.c

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Found in path(s):

\* /opt/cola/permits/1501752506\_1670492918.1945343/0/netty-transport-native-epoll-4-1-85-final-sources-jar/netty\_epoll\_linuxsocket.h

\* /opt/cola/permits/1501752506\_1670492918.1945343/0/netty-transport-native-epoll-4-1-85-final-sources-jar/netty\_epoll\_linuxsocket.c

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\* /opt/cola/permits/1501752506\_1670492918.1945343/0/netty-transport-native-epoll-4-1-85-final-sources-

# 1.108 netty-resolver-dns-native-macos

## 4.1.85.Final

### 1.108.1 Available under license :

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```

Found in path(s):

```
* /opt/cola/permits/1501917810_1689673698.0563817/0/netty-resolver-dns-native-macos-4-1-85-final-jar/META-INF/maven/io.netty/netty-resolver-dns-native-macos/pom.xml
```

No license file was found, but licenses were detected in source scan.

Manifest-Version: 1.0

Implementation-Title: Netty/Resolver/DNS/Native/MacOS

Bundle-Description: Netty is an asynchronous event-driven network application framework for rapid development of maintainable high performance protocol servers and clients.

Automatic-Module-Name: io.netty.resolver.dns.macos.osx.aarch\_64

Bundle-License: https://www.apache.org/licenses/LICENSE-2.0

Bundle-SymbolicName: io.netty.resolver-dns-native-macos

Implementation-Version: 4.1.85.Final

Built-By: chris

Bnd-LastModified: 1668019112741

Bundle-ManifestVersion: 2

Implementation-Vendor-Id: io.netty

Bundle-DocURL: https://netty.io/

Bundle-Vendor: The Netty Project

Import-Package: sun.nio.ch;resolution:=optional,org.eclipse.jetty.npn;version="[1,2)";resolution:=optional,org.eclipse.jetty.alpn;version="

[1,2)];resolution:=optional  
Tool: Bnd-2.4.1.201501161923  
Implementation-Vendor: The Netty Project  
Bundle-Name: Netty/Resolver/DNS/Native/MacOS  
Bundle-Version:  
4.1.85.Final  
Created-By: Apache Maven Bundle Plugin  
Build-Jdk: 1.8.0\_312  
Implementation-URL: <https://netty.io/netty-resolver-dns-native-macos/>

Found in path(s):

\* /opt/cola/permits/1501917810\_1689673698.0563817/0/netty-resolver-dns-native-macos-4-1-85-final-jar/META-INF/MANIFEST.MF

## 1.109 netty-transport-native-kqueue

### 4.1.85.Final

#### 1.109.1 Available under license :

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-->
```

Found in path(s):

\* /opt/cola/permits/1501918358\_1670505562.1510534/0/netty-transport-native-kqueue-4-1-85-final-sources-jar/META-INF/maven/io.netty/netty-transport-native-kqueue/pom.xml

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Found in path(s):

\* /opt/cola/permits/1501918358\_1670505562.1510534/0/netty-transport-native-kqueue-4-1-85-final-sources-jar/netty\_kqueue\_bsdsocket.h  
\* /opt/cola/permits/1501918358\_1670505562.1510534/0/netty-transport-native-kqueue-4-1-85-final-sources-jar/netty\_kqueue\_eventarray.h  
\* /opt/cola/permits/1501918358\_1670505562.1510534/0/netty-transport-native-kqueue-4-1-85-final-sources-jar/netty\_kqueue\_native.c  
\*  
/opt/cola/permits/1501918358\_1670505562.1510534/0/netty-transport-native-kqueue-4-1-85-final-sources-jar/netty\_kqueue\_eventarray.c  
\* /opt/cola/permits/1501918358\_1670505562.1510534/0/netty-transport-native-kqueue-4-1-85-final-sources-jar/netty\_kqueue\_bsdsocket.c

## 1.110 netty 4.1.86.Final

### 1.110.1 Available under license :

No license file was found, but licenses were detected in source scan.

Manifest-Version: 1.0

Implementation-Title: Netty/Transport/Classes/Epoll

Bundle-Description: Netty is an asynchronous event-driven network application framework for rapid development of maintainable high performance protocol servers and clients.

Automatic-Module-Name: io.netty.transport.classes.epoll

Bundle-License: <https://www.apache.org/licenses/LICENSE-2.0>

Bundle-SymbolicName: io.netty.transport-classes-epoll

Implementation-Version: 4.1.86.Final

Built-By: root

Bnd-LastModified: 1670851209269

Bundle-ManifestVersion: 2

Implementation-Vendor-Id: io.netty

Bundle-DocURL: <https://netty.io/>

Bundle-Vendor: The Netty Project

Import-Package: io.netty.buffer;version="[4.1,5)",io.netty.channel,io.netty.channel.socket;version="[4.1,5)",io.netty.channel.unix;version="[4.1,5)",io.netty.util;version="[4.1,5)",io.netty.util.collection;ve

rsion="[4.1,5)",io.netty.util.concurrent;version="[4.1,5)",io.netty.u  
til.internal;version="[4.1,5)",io.netty.util.internal.logging;version  
="[4.1,5)",sun.nio.ch;resolution:=optional,org.eclipse.jetty.npn;vers  
ion="[1,2)";resolution:=optional,org.eclipse.jetty.alpn;version="[1,2  
)";resolution:=optional  
Require-Capability: osgi.ee;filter="(&(osgi.ee=JavaSE)(version=1.6))"  
Tool: Bnd-2.4.1.201501161923  
Implementation-Vendor: The Netty Project  
Export-Package: io.netty.channel.epoll;uses:="io.netty.buffer,io.netty  
.channel,io.netty.channel.socket,io.netty.channel.unix,io.netty.util,  
io.netty.util.concurrent";version="4.1.86"  
Bundle-Name: Netty/Transport/Classes/Epoll  
Bundle-Version: 4.1.86.Final  
Created-By: Apache Maven Bundle Plugin  
Build-Jdk: 1.8.0\_352  
Implementation-URL: <https://netty.io/netty-transport-classes-epoll/>

Found in path(s):

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-transport-classes-epoll-4-1-86-final-jar/META-INF/MANIFEST.MF

No license file was found, but licenses were detected in source scan.

Manifest-Version: 1.0  
Implementation-Title: Netty/Transport/Native/Unix/Common  
Bundle-Description: Static library which contains common unix utilitie  
s.  
Automatic-Module-Name: io.netty.transport.unix.common  
Bundle-License: <https://www.apache.org/licenses/LICENSE-2.0>  
Bundle-SymbolicName: io.netty.transport-native-unix-common  
Implementation-Version: 4.1.86.Final  
Built-By: norman  
Bnd-LastModified: 1670855190526  
Bundle-ManifestVersion: 2  
Implementation-Vendor-Id: io.netty  
Bundle-DocURL: <https://netty.io/>  
Bundle-Vendor: The Netty Project  
Import-Package: io.netty.buffer;version="[4.1,5)",io.netty.channel,io.  
netty.channel.socket;version="[4.1,5)",io.netty.util;version="[4.1,5)  
",io.netty.util.internal;version="[4.1,5)",sun.nio.ch;resolution:=opt  
ional,org.eclipse.jetty.npn;version="[1,2)";resolution:=optional,org.  
eclipse.jetty.alpn;version="[1,2)";resolution:=optional  
Require-Capability: osgi.ee;filter="(&(osgi.ee=JavaSE)(version=1.6))"  
Tool:  
Bnd-2.4.1.201501161923  
Implementation-Vendor: The Netty Project  
Export-Package: io.netty.channel.unix;uses:="io.netty.buffer,io.netty.  
channel,io.netty.channel.socket,io.netty.util";version="4.1.86"  
Bundle-Name: Netty/Transport/Native/Unix/Common

Bundle-Version: 4.1.86.Final  
Created-By: Apache Maven Bundle Plugin  
Build-Jdk: 1.8.0\_252  
Implementation-URL: <https://netty.io/netty-transport-native-unix-common/>

Found in path(s):

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-transport-native-unix-common-4-1-86-final-jar/META-INF/MANIFEST.MF

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\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-transport-classes-epoll-4-1-86-final-jar/META-INF/maven/io.netty/netty-transport-classes-epoll/pom.xml

No license file was found, but licenses were detected in source scan.

Manifest-Version: 1.0

Implementation-Title: Netty/Handler/Proxy

Bundle-Description: Netty is an asynchronous event-driven network application framework for rapid development of maintainable high performance protocol servers and clients.

Automatic-Module-Name: io.netty.handler.proxy

Bundle-License: <https://www.apache.org/licenses/LICENSE-2.0>

Bundle-SymbolicName: io.netty.handler-proxy

Implementation-Version: 4.1.86.Final

Built-By: root

Bnd-LastModified: 1670851161046

Bundle-ManifestVersion: 2

Implementation-Vendor-Id: io.netty

Bundle-DocURL: <https://netty.io/>

Bundle-Vendor: The Netty Project

Import-Package: io.netty.buffer;version="[4.1,5)",io.netty.channel;ver

sion="[4.1,5)",io.netty.handler.codec.base64;version="[4.1,5)",io.netty.handler.codec.http;version="[4.1,5)",io.netty.handler.codec.socksv4;version="[4.1,5)",io.netty.handler.codec.socksv5;version="[4.1,5)",io.netty.util;version="[4.1,5)",io.netty.util.concurrent;version="[4.1,5)",io.netty.util.internal;version="[4.1,5)",io.netty.util.internal.logging;version="[4.1,5)",sun.nio.ch;resolution:=optional,org.eclipse.jetty.npn;version="[1,2)";resolution:=optional,org.eclipse.jetty.alpn;version="[1,2)";resolution:=optional  
Require-Capability: osgi.ee;filter="(&(osgi.ee=JavaSE)(version=1.6))"  
Tool: Bnd-2.4.1.201501161923  
Implementation-Vendor: The Netty Project  
Export-Package: io.netty.handler.proxy;uses:="io.netty.channel,io.netty.handler.codec.http,io.netty.util.concurrent";version="4.1.86"  
Bundle-Name: Netty/Handler/Proxy  
Bundle-Version: 4.1.86.Final  
Created-By: Apache Maven Bundle Plugin  
Build-Jdk: 1.8.0\_352  
Implementation-URL: <https://netty.io/netty-handler-proxy/>

Found in path(s):

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-handler-proxy-4-1-86-final-jar/META-INF/MANIFEST.MF

No license file was found, but licenses were detected in source scan.

Manifest-Version: 1.0

Implementation-Title: Netty/Resolver

Bundle-Description: Netty is an asynchronous event-driven network application framework for rapid development of maintainable high performance protocol servers and clients.

Automatic-Module-Name: io.netty.resolver

Bundle-License: <https://www.apache.org/licenses/LICENSE-2.0>

Bundle-SymbolicName: io.netty.resolver

Implementation-Version: 4.1.86.Final

Built-By: norman

Bnd-LastModified: 1670855159282

Bundle-ManifestVersion: 2

Implementation-Vendor-Id: io.netty

Bundle-DocURL: <https://netty.io/>

Bundle-Vendor: The Netty Project

Import-Package: io.netty.util;version="[4.1,5)",io.netty.util.concurrent;version="[4.1,5)",io.netty.util.internal;version="[4.1,5)",io.netty.util.internal.logging;version="[4.1,5)",sun.nio.ch;resolution:=optional,org.eclipse.jetty.npn;version="[1,2)";resolution:=optional,org.eclipse.jetty.alpn;version="[1,2)";resolution:=optional

Require-Capability:

osgi.ee;filter="(&(osgi.ee=JavaSE)(version=1.6))"

Tool: Bnd-2.4.1.201501161923

Implementation-Vendor: The Netty Project

Export-Package: io.netty.resolver;uses:="io.netty.util.concurrent";version="4.1.86"  
Bundle-Name: Netty/Resolver  
Bundle-Version: 4.1.86.Final  
Created-By: Apache Maven Bundle Plugin  
Build-Jdk: 1.8.0\_252  
Implementation-URL: <https://netty.io/netty-resolver/>

Found in path(s):

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-resolver-4-1-86-final-jar/META-INF/MANIFEST.MF

No license file was found, but licenses were detected in source scan.

Manifest-Version: 1.0  
Implementation-Title: Netty/Common  
Bundle-Description: Netty is an asynchronous event-driven network application framework for rapid development of maintainable high performance protocol servers and clients.  
Automatic-Module-Name: io.netty.common  
Bundle-License: <https://www.apache.org/licenses/LICENSE-2.0>  
Bundle-SymbolicName: io.netty.common  
Implementation-Version: 4.1.86.Final  
Built-By: norman  
Bnd-LastModified: 1670855137664  
Bundle-ManifestVersion: 2  
Implementation-Vendor-Id: io.netty  
Bundle-DocURL: <https://netty.io/>  
Bundle-Vendor: The Netty Project  
Import-Package: sun.misc;resolution:=optional,com.oracle.svm.core.annotate;resolution:=optional,javax.security.cert;resolution:=optional,org.apache.commons.logging;resolution:=optional;version="[1.2,2)",org.apache.log4j;resolution:=optional;version="[2.17,3)",org.apache.logging.log4j;resolution:=optional;version="[2.17,3)",org.apache.logging.log4j.message;resolution:=optional;version="[2.17,3)",org.apache.logging.log4j.spi;resolution:=optional;version="[2.17,3)",org.slf4j;resolution:=optional;version="[1.7,2)",org.slf4j.helpers;resolution:=optional;version="[1.7,2)",org.slf4j.spi;resolution:=optional;version="[1.7,2)",reactor.blockhound;resolution:=optional,reactor.blockhound.integration;resolution:=optional  
Require-Capability: osgi.ee;filter="(&(osgi.ee=JavaSE)(version=1.6))"  
DynamicImport-Package: \*  
Tool: Bnd-2.4.1.201501161923  
Implementation-Vendor: The Netty Project  
Export-Package: io.netty.util;uses:="io.netty.util.concurrent,io.netty.util.internal";version="4.1.86",io.netty.util.collection;version="4.1.86",io.netty.util.concurrent;uses:="io.netty.util.internal";version="4.1.86",io.netty.util.internal;uses:="io.netty.util,io.netty.util.concurrent,io.netty.util.internal.logging,javax.security.cert,reactor.



blockhound,reactor.blockhound.integration";version="4.1.86",io.netty.  
util.internal.logging;version="4.1.86",io.netty.util.internal.svm;ver  
sion="4.1.86"  
Bundle-Name: Netty/Common  
Bundle-Version: 4.1.86.Final  
Created-By: Apache Maven Bundle Plugin  
Build-Jdk: 1.8.0\_252  
Implementation-URL: https://netty.io/netty-common/

Found in path(s):

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-common-4-1-86-final-jar/META-INF/MANIFEST.MF

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-->

Found in path(s):

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-common-4-1-86-final-jar/META-INF/maven/io.netty/netty-common/pom.xml

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-buffer-4-1-86-final-jar/META-INF/maven/io.netty/netty-buffer/pom.xml

\*

/opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-codec-4-1-86-final-jar/META-INF/maven/io.netty/netty-codec/pom.xml

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-transport-4-1-86-final-jar/META-INF/maven/io.netty/netty-transport/pom.xml

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-handler-4-1-86-final-jar/META-INF/maven/io.netty/netty-handler/pom.xml

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-codec-http-4-1-86-final-jar/META-INF/maven/io.netty/netty-codec-http/pom.xml

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-codec-socks-4-1-86-final-jar/META-INF/maven/io.netty/netty-codec-socks/pom.xml

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Manifest-Version: 1.0  
Implementation-Title: Netty/Transport/Native/Epoll  
Bundle-Description: Netty is an asynchronous event-driven network application framework for rapid development of maintainable high performance protocol servers and clients.  
Automatic-Module-Name: io.netty.transport.epoll.linux.x86\_64  
Bundle-License: <https://www.apache.org/licenses/LICENSE-2.0>  
Bundle-SymbolicName: io.netty.transport-native-epoll  
Implementation-Version: 4.1.86.Final  
Built-By: root  
Bnd-LastModified: 1670851257748  
Bundle-ManifestVersion: 2  
Implementation-Vendor-Id: io.netty  
Bundle-DocURL: <https://netty.io/>  
Bundle-Vendor: The Netty Project  
Import-Package: sun.nio.ch;resolution:=optional,org.eclipse.jetty.npn;version="[1,2)";resolution:=optional,org.eclipse.jetty.alpn;version="[1,2)";resolution:=optional  
Tool: Bnd-2.4.1.201501161923  
Implementation-Vendor: The Netty Project  
Bundle-Name: Netty/Transport/Native/Epoll  
Bundle-Version:  
4.1.86.Final  
Created-By: Apache Maven Bundle Plugin  
Build-Jdk: 1.8.0\_352  
Implementation-URL: <https://netty.io/netty-transport-native-epoll/>

Found in path(s):

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-transport-native-epoll-4-1-86-final-jar/META-INF/MANIFEST.MF

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# WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the
# License for the specific language governing permissions and limitations
# under the License.
io.netty.util.internal.Hidden$NettyBlockHoundIntegration
```

Found in path(s):

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-common-4-1-86-final-jar/META-INF/services/reactor.blockhound.integration.BlockHoundIntegration  
No license file was found, but licenses were detected in source scan.

Manifest-Version: 1.0

Implementation-Title: Netty/Codec/HTTP2

Bundle-Description: Netty is an asynchronous event-driven network application framework for rapid development of maintainable high performance protocol servers and clients.

Automatic-Module-Name: io.netty.codec.http2

Bundle-License: <https://www.apache.org/licenses/LICENSE-2.0>

Bundle-SymbolicName: io.netty.codec-http2

Implementation-Version: 4.1.86.Final

Built-By: root

Bnd-LastModified: 1670851101053

Bundle-ManifestVersion: 2

Implementation-Vendor-Id: io.netty

Bundle-DocURL: <https://netty.io/>

Bundle-Vendor: The Netty Project

Import-Package: com.aayushatharva.brotli4j.encoder;resolution:=optional,io.netty.buffer;version="[4.1,5)",io.netty.channel;version="[4.1,5)",io.netty.channel.embedded;version="[4.1,5)",io.netty.handler.codec,io.netty.handler.codec.base64;version="[4.1,5)",io.netty.handler.codec.compression;version="[4.1,5)",io.netty.handler.codec.http;version="[4.1,5)",io.netty.handler.logging;version="[4.1,5)",io.netty.handler.ssl;version="[4.1,5)",io.netty.handler.stream;version="[4.1,5)",io.netty.util;version="[4.1,5)",io.netty.util.collection;version="[4.1,5)",io.netty.util.concurrent;version="[4.1,5)",io.netty.util.internal;version="[4.1,5)",io.netty.util.internal.logging;version="[4.1,5)",javax.net.ssl,sun.nio.ch;resolution:=optional,org.eclipse.jetty.npn;version="[1,2)";resolution:=optional,org.eclipse.jetty.alpn;version="[1,2)";resolution:=optional

Require-Capability: osgi.ee;filter="(&(osgi.ee=JavaSE)(version=1.6))"

Tool: Bnd-2.4.1.201501161923

Implementation-Vendor: The Netty Project

Export-Package: io.netty.handler.codec.http2;uses:="io.netty.buffer,io.netty.channel,io.netty.channel.embedded,io.netty.handler.codec,io.netty.handler.codec.compression,io.netty.handler.codec.http,io.netty.handler.logging,io.netty.handler.stream,io.netty.util,io.netty.util.collection,io.netty.util.concurrent";version="4.1.86"

Bundle-Name:

Netty/Codec/HTTP2

Bundle-Version: 4.1.86.Final

Created-By: Apache Maven Bundle Plugin

Build-Jdk: 1.8.0\_352

Implementation-URL: <https://netty.io/netty-codec-http2/>

Found in path(s):

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-codec-http2-4-1-86-final-jar/META-INF/MANIFEST.MF

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\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-transport-native-epoll-4-1-86-final-jar/META-INF/maven/io.netty/netty-transport-native-epoll/pom.xml

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-codec-http2-4-1-86-final-jar/META-INF/maven/io.netty/netty-codec-http2/pom.xml

\*

/opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-resolver-4-1-86-final-jar/META-INF/maven/io.netty/netty-resolver/pom.xml

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-handler-proxy-4-1-86-final-jar/META-INF/maven/io.netty/netty-handler-proxy/pom.xml

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Manifest-Version: 1.0

Implementation-Title: Netty/Handler

Bundle-Description: Netty is an asynchronous event-driven network application framework for rapid development of maintainable high performance protocol servers and clients.

Automatic-Module-Name: io.netty.handler

Bundle-License: <https://www.apache.org/licenses/LICENSE-2.0>

Bundle-SymbolicName: io.netty.handler

Implementation-Version: 4.1.86.Final

Built-By: norman

Bnd-LastModified: 1670855199960

Bundle-ManifestVersion: 2

Implementation-Vendor-Id: io.netty

Bundle-DocURL: <https://netty.io/>

Bundle-Vendor: The Netty Project

Import-Package: sun.security.x509;resolution:=optional,org.eclipse.jet

ty.npn;version="[1,2]";resolution:=optional,org.eclipse.jetty.alpn;version="[1,2]";resolution:=optional,io.netty.buffer;version="[4.1,5)",io.netty.channel;version="[4.1,5)",io.netty.channel.socket;version="[4.1,5)",io.netty.channel.unix;version="[4.1,5)",io.netty.handler.codec;version="[4.1,5)",io.netty.handler.codec.base64;version="[4.1,5)",io.netty.internal.tcnative;version="[2.0,3)";resolution:=optional,io.netty.resolver;version="[4.1,5)",io.netty.util;version="[4.1,5)",io.netty.util.concurrent;version="[4.1,5)",io.netty.util.internal;version="[4.1,5)",io.netty.util.internal.logging;version="[4.1,5)",javax.crypto,javax.crypto.spec,javax.net.ssl,javax.security.auth.x500,javax.security.cert,org.bouncycastle.asn1.pkcs;version="[1.69,2)";resolution:=optional,org.bouncycastle.asn1.x500;version="[1.69,2)";resolution:=optional,org.bouncycastle.cert;version="[1.69,2)";resolution:=optional,org.bouncycastle.cert.jcajce;version="[1.69,2)";resolution:=optional,org.bouncycastle.jce.provider;version="[1.69,2)";resolution:=optional,org.bouncycastle.openssl;version="[1.69,2)";resolution:=optional,org.bouncycastle.openssl.jcajce;version="[1.69,2)";resolution:=optional,org.bouncycastle.operator;version="[1.69,2)";resolution:=optional,org.bouncycastle.operator.jcajce;version="[1.69,2)";resolution:=optional,org.bouncycastle.pkcs;version="[1.69,2)";resolution:=optional,org.conscrypt;version="[2.5,3)";resolution:=optional,sun.nio.ch;resolution:=optional

Require-Capability: osgi.ee;filter="(&(osgi.ee=JavaSE)(version=1.6))"

Tool: Bnd-2.4.1.201501161923

Implementation-Vendor: The Netty Project

Export-Package: io.netty.handler.address;uses:="io.netty.channel,io.netty.resolver";version="4.1.86",io.netty.handler.flow;uses:="io.netty.channel";version="4.1.86",io.netty.handler.flush;uses:="io.netty.channel";version="4.1.86",io.netty.handler.ipfilter;uses:="io.netty.channel";version="4.1.86",io.netty.handler.logging;uses:="io.netty.channel,io.netty.util.internal.logging";version="4.1.86",io.netty.handler.pcap;uses:="io.netty.channel";version="4.1.86",io.netty.handler.ssl;uses:="io.netty.buffer,io.netty.channel,io.netty.handler.codec,io.netty.util,io.netty.util.concurrent,javax.crypto,javax.net.ssl";version="4.1.86",io.netty.handler.ssl.ocsp;uses:="io.netty.channel,io.netty.handler.ssl";version="4.1.86",io.netty.handler.ssl.util;uses:="javax.net.ssl,javax.security.auth.x500,javax.security.cert";version="4.1.86",io.netty.handler.stream;uses:="io.netty.buffer,io.netty.channel";version="4.1.86",io.netty.handler.timeout;uses:="io.netty.channel";version="4.1.86",io.netty.handler.traffic;uses:="io.netty.channel,io.netty.util.concurrent";version="4.1.86"

Bundle-Name: Netty/Handler

Bundle-Version: 4.1.86.Final

Created-By: Apache Maven Bundle Plugin

Build-Jdk: 1.8.0\_252

Implementation-URL: <https://netty.io/netty-handler/>

Found in path(s):

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-handler-4-1-86-final-jar/META-INF/MANIFEST.MF

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\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-codec-http2-4-1-86-final-jar/META-INF/native-image/io.netty/netty-codec-http2/native-image.properties

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-transport-4-1-86-final-jar/META-INF/native-image/io.netty/netty-transport/native-image.properties

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-codec-http-4-1-86-final-jar/META-INF/native-image/io.netty/netty-codec-http/native-image.properties

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-buffer-4-1-86-final-jar/META-INF/native-image/io.netty/netty-buffer/native-image.properties

\*

/opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-common-4-1-86-final-jar/META-INF/native-image/io.netty/netty-common/native-image.properties

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-codec-4-1-86-final-jar/META-INF/native-image/io.netty/netty-codec/native-image.properties

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-handler-4-1-86-final-jar/META-INF/native-image/io.netty/netty-handler/native-image.properties

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Manifest-Version: 1.0

Implementation-Title: Netty/Codec/Socks

Bundle-Description: Netty is an asynchronous event-driven network application framework for rapid development of maintainable high performance protocol servers and clients.

Automatic-Module-Name: io.netty.codec.socks

Bundle-License: <https://www.apache.org/licenses/LICENSE-2.0>

Bundle-SymbolicName: io.netty.codec-socks

Implementation-Version: 4.1.86.Final

Built-By: root

Bnd-LastModified: 1670851140833

Bundle-ManifestVersion: 2

Implementation-Vendor-Id: io.netty

Bundle-DocURL: <https://netty.io/>

Bundle-Vendor: The Netty Project

Import-Package: io.netty.buffer;version="[4.1,5)",io.netty.channel;version="[4.1,5)",io.netty.handler.codec,io.netty.util;version="[4.1,5)",io.netty.util.internal;version="[4.1,5)",io.netty.util.internal.logging;version="[4.1,5)",sun.nio.ch;resolution:=optional,org.eclipse.jetty.npn;version="[1,2)";resolution:=optional,org.eclipse.jetty.alpn;ve

rsion="[1,2)";resolution:=optional  
Require-Capability: osgi.ee;filter="(&(osgi.ee=JavaSE)(version=1.6))"  
Tool: Bnd-2.4.1.201501161923  
Implementation-Vendor: The Netty Project  
Export-Package: io.netty.handler.codec.socks;uses:="io.netty.buffer,io.netty.channel,io.netty.handler.codec";version="4.1.86",io.netty.handler.codec.socksx;uses:="io.netty.buffer,io.netty.channel,io.netty.handler.codec,io.netty.handler.codec.socksx.v5";version="4.1.86",io.netty.handler.codec.socksx.v4;uses:="io.netty.buffer,io.netty.channel,io.netty.handler.codec,io.netty.handler.codec.socksx";version="4.1.86",io.netty.handler.codec.socksx.v5;uses:="io.netty.buffer,io.netty.channel,io.netty.handler.codec,io.netty.handler.codec.socksx";version="4.1.86"  
Bundle-Name: Netty/Codec/Socks  
Bundle-Version: 4.1.86.Final  
Created-By: Apache Maven Bundle Plugin  
Build-Jdk: 1.8.0\_352  
Implementation-URL: https://netty.io/netty-codec-socks/

Found in path(s):

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-codec-socks-4-1-86-final-jar/META-INF/MANIFEST.MF

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```
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/maven-v4_0_0.xsd">
  <modelVersion>4.0.0</modelVersion>
```

```
  <artifactId>jctools-core</artifactId>
  <groupId>org.jctools</groupId>
  <version>3.1.0</version>
  <name>Java Concurrency Tools Core Library</name>
  <description>Java Concurrency Tools Core Library</description>
  <packaging>bundle</packaging>
```

```
  <dependencies>
    <dependency>
      <groupId>org.hamcrest</groupId>
      <artifactId>hamcrest-all</artifactId>
      <version>${hamcrest.version}</version>
      <scope>test</scope>
    </dependency>
```

```
    <dependency>
      <groupId>junit</groupId>
      <artifactId>junit</artifactId>
      <version>${junit.version}</version>
      <scope>test</scope>
```

```

</dependency>

<dependency>
  <groupId>com.google.guava</groupId>
  <artifactId>guava-testlib</artifactId>
  <version>${guava-testlib.version}</version>
  <scope>test</scope>
</dependency>
</dependencies>
<build>
  <plugins>
    <plugin>
      <groupId>org.apache.maven.plugins</groupId>
      <artifactId>maven-surefire-plugin</artifactId>
      <version>3.0.0-M3</version>
      <configuration>
        <includes>
          <include>*</include>
        </includes>
      </configuration>
    </plugin>
    <plugin>
      <groupId>org.apache.felix</groupId>
      <artifactId>maven-bundle-plugin</artifactId>
      <version>4.2.1</version>
      <extensions>>true</extensions>
      <configuration>
        <instructions>
          <Import-Package>sun.misc;resolution:=optional</Import-Package>
        </instructions>
      </configuration>
    </plugin>
    <plugin>
      <groupId>org.apache.maven.plugins</groupId>
      <artifactId>maven-source-plugin</artifactId>
      <version>3.2.0</version>
      <executions>
        <execution>
          <id>attach-sources</id>
          <phase>verify</phase>
          <goals>
            <goal>jar-no-fork</goal>
          </goals>
        </execution>
      </executions>
    </plugin>
    <plugin>
      <groupId>org.apache.maven.plugins</groupId>

```



```

<artifactId>maven-javadoc-plugin</artifactId>
<version>3.1.1</version>
<configuration>
  <additionalOptions>
    <additionalOption>-Xdoclint:none</additionalOption>
  </additionalOptions>
  <source>8</source>
</configuration>
<executions>
  <execution>
    <id>attach-javadocs</id>
    <goals>
      <goal>jar</goal>
    </goals>
  </execution>
</executions>
</plugin>
</plugins>
</build>

<distributionManagement>
  <repository>
    <id>bintray-jctools-jctools</id>
    <name>jctools-jctools</name>
    <url>https://api.bintray.com/maven/jctools/jctools/jctools-core/;publish=1</url>
  </repository>
</distributionManagement>

<url>https://github.com/JCTools</url>
<inceptionYear>2013</inceptionYear>

<licenses>
  <license>
    <name>Apache
License, Version 2.0</name>
    <url>http://www.apache.org/licenses/LICENSE-2.0.txt</url>
    <distribution>repo</distribution>
  </license>
</licenses>

<scm>
  <url>https://github.com/JCTools/JCTools</url>
  <connection>scm:git:https://github.com/JCTools/JCTools</connection>
  <tag>HEAD</tag>
</scm>

<developers>
  <developer>

```

```

    <url>https://github.com/nitsanw</url>
  </developer>
  <developer>
    <url>https://github.com/mjpt777</url>
  </developer>
  <developer>
    <url>https://github.com/RichardWarburton</url>
  </developer>
  <developer>
    <url>https://github.com/kay</url>
  </developer>
  <developer>
    <url>https://github.com/franz1981</url>
  </developer>
</developers>

<prerequisites>
  <maven>3.5.0</maven>
</prerequisites>

<properties>
  <project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>
  <java.version>1.6</java.version>
  <java.test.version>1.8</java.test.version>

  <maven.compiler.source>${java.version}</maven.compiler.source>
  <maven.compiler.target>${java.version}</maven.compiler.target>
  <maven.compiler.testSource>${java.test.version}</maven.compiler.testSource>
  <maven.compiler.testTarget>${java.test.version}</maven.compiler.testTarget>

  <hamcrest.version>1.3</hamcrest.version>
  <junit.version>4.12</junit.version>
  <guava-testlib.version>21.0</guava-testlib.version>
</properties>
</project>

```

Found

in path(s):

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-common-4-1-86-final-jar/META-INF/maven/org.jctools/jctools-core/pom.xml

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-->

Found in path(s):

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-transport-native-unix-common-4-1-86-final-jar/META-INF/maven/io.netty/netty-transport-native-unix-common/pom.xml

No license file was found, but licenses were detected in source scan.

Manifest-Version: 1.0

Implementation-Title: Netty/Codec

Bundle-Description: Netty is an asynchronous event-driven network application framework for rapid development of maintainable high performance protocol servers and clients.

Automatic-Module-Name: io.netty.codec

Bundle-License: <https://www.apache.org/licenses/LICENSE-2.0>

Bundle-SymbolicName: io.netty.codec

Implementation-Version: 4.1.86.Final

Built-By: norman

Bnd-LastModified: 1670855178734

Bundle-ManifestVersion: 2

Implementation-Vendor-Id: io.netty

Bundle-DocURL: <https://netty.io/>

Bundle-Vendor: The Netty Project

Import-Package: com.aayushatharva.brotli4j;resolution:=optional,com.aayushatharva.brotli4j.decoder;resolution:=optional,com.aayushatharva.brotli4j.encoder;resolution:=optional,com.github.luben.zstd;version="[1.5,2)";resolution:=optional,com.google.protobuf;version="[2.6,3)";resolution:=optional,com.google.protobuf.nano;resolution:=optional,com.jcraft.jzlib;resolution:=optional,com.ning.compress;version="[1.0,2)";resolution:=optional,com.ning.compress.lzf;version="[1.0,2)";resolution:=optional,com.ning.compress.lzf.util;version="[1.0,2)";resolution:=optional,io.netty.buffer;version="[4.1,5)",io.netty.channel;version="[4.1,5)",io.netty.channel.socket;version="[4.1,5)",io.netty.util;version="[4.1,5)",io.netty.util.concurrent;version="[4.1,5)",io.netty.util.internal;version="[4.1,5)",io.netty.util.internal.logging;version="[4.1,5)",lzma.sdk;resolution:=optional,lzma.sdk.lzma;resolution:=optional,net.jpountz.lz4;resolution:=optional,net.jpountz.xxhash;resolution:=optional,org.jboss.marshalling;resolution:=optional,sun.nio.ch;resolution:=optional,org.eclipse.jetty.npn;version="[1,2)";resolution:=optional,org.eclipse.jetty.alpn;version="[1,2)";resolution:=optiona

l

Require-Capability: osgi.ee;filter="(&(osgi.ee=JavaSE)(version=1.6))"

Tool: Bnd-2.4.1.201501161923

Implementation-Vendor: The Netty Project

Export-Package:

io.netty.handler.codec;uses:="io.netty.buffer,io.netty.channel,io.netty.channel.socket,io.netty.util";version="4.1.86",io.netty.handler.codec.base64;uses:="io.netty.buffer,io.netty.channel,io.netty.handler.codec";version="4.1.86",io.netty.handler.codec.bytes;uses:="io.netty.buffer,io.netty.channel,io.netty.handler.codec";version="4.1.86",io.netty.handler.codec.compression;uses:="com.aayushatharva.brotli4j.encoder,io.netty.buffer,io.netty.channel,io.netty.handler.codec,net.jpountz.lz4";version="4.1.86",io.netty.handler.codec.json;uses:="io.netty.buffer,io.netty.channel,io.netty.handler.codec";version="4.1.86",io.netty.handler.codec.marshalling;uses:="io.netty.buffer,io.netty.channel,io.netty.handler.codec,org.jboss.marshalling";version="4.1.86",io.netty.handler.codec.protobuf;uses:="com.google.protobuf,com.google.protobuf.nano,io.netty.buffer,io.netty.channel,io.netty.handler.codec";version="4.1.86",io.netty.handler.codec.serialization;uses:="io.netty.buffer,io.netty.channel,io.netty.handler.codec";version="4.1.86",io.netty.handler.codec.string;uses:="io.netty.buffer,io.netty.channel,io.netty.handler.codec";version="4.1.86",io.netty.handler.codec.xml;uses:="io.netty.buffer,io.netty.channel,io.netty.handler.codec";version="4.1.86"

Bundle-Name: Netty/Codec

Bundle-Version: 4.1.86.Final

Created-By: Apache Maven Bundle Plugin

Build-Jdk: 1.8.0\_252

Implementation-URL: <https://netty.io/netty-codec/>

Found in path(s):

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-codec-4-1-86-final-jar/META-INF/MANIFEST.MF

No license file was found, but licenses were detected in source scan.

Manifest-Version: 1.0

Implementation-Title: Netty/Codec/HTTP

Bundle-Description: Netty is an asynchronous event-driven network application framework for rapid development of maintainable high performance protocol servers and clients.

Automatic-Module-Name: io.netty.codec.http

Bundle-License: <https://www.apache.org/licenses/LICENSE-2.0>

Bundle-SymbolicName: io.netty.codec-http

Implementation-Version: 4.1.86.Final

Built-By: norman

Bnd-LastModified: 1670855212920

Bundle-ManifestVersion: 2

Implementation-Vendor-Id: io.netty

Bundle-DocURL: <https://netty.io/>

Bundle-Vendor: The Netty Project

Import-Package: com.aayushatharva.brotli4j.encoder;resolution:=optional,com.jcraft.jzlib;resolution:=optional,io.netty.buffer;version="[4.1,5)",io.netty.channel;version="[4.1,5)",io.netty.channel.embedded;version="[4.1,5)",io.netty.handler.codec,io.netty.handler.codec.base64;version="[4.1,5)",io.netty.handler.codec.compression;version="[4.1,5)",io.netty.handler.ssl;version="[4.1,5)",io.netty.handler.stream;version="[4.1,5)",io.netty.util;version="[4.1,5)",io.netty.util.concurrent;version="[4.1,5)",io.netty.util.internal;version="[4.1,5)",io.netty.util.internal.logging;version="[4.1,5)",sun.nio.ch;resolution:=optional,org.eclipse.jetty.npn;version="[1,2)";resolution:=optional,org.eclipse.jetty.alpn;version="[1,2)";resolution:=optional  
Require-Capability: osgi.ee;filter="(&(osgi.ee=JavaSE)(version=1.6))"  
Tool: Bnd-2.4.1.201501161923

Implementation-Vendor: The Netty Project

Export-Package: io.netty.handler.codec.http;uses:="io.netty.buffer,io.netty.channel,io.netty.channel.embedded,io.netty.handler.codec,io.netty.handler.codec.compression,io.netty.handler.codec.http.cookie,io.netty.handler.stream,io.netty.util";version="4.1.86",io.netty.handler.codec.http.cookie;version="4.1.86",io.netty.handler.codec.http.cors;uses:="io.netty.channel,io.netty.handler.codec.http";version="4.1.86",io.netty.handler.codec.http.multipart;uses:="io.netty.buffer,io.netty.channel,io.netty.handler.codec,io.netty.handler.codec.http,io.netty.handler.stream,io.netty.util";version="4.1.86",io.netty.handler.codec.http.websocketx;uses:="io.netty.buffer,io.netty.channel,io.netty.handler.codec,io.netty.handler.codec.http,io.netty.handler.stream,io.netty.util,io.netty.util.internal.logging";version="4.1.86",io.netty.handler.codec.http.websocketx.extensions;uses:="io.netty.channel,io.netty.handler.codec,io.netty.handler.codec.http.websocketx";version="4.1.86",io.netty.handler.codec.http.websocketx.extensions.compression;uses:="io.netty.channel,io.netty.handler.codec.http.websocketx.extensions";version="4.1.86",io.netty.handler.codec.rtsp;uses:="io.netty.buffer,io.netty.channel,io.netty.handler.codec.http,io.netty.util";version="4.1.86",io.netty.handler.codec.spdy;uses:="io.netty.buffer,io.netty.channel,io.netty.handler.codec,io.netty.handler.codec.http,io.netty.util";version="4.1.86"

Bundle-Name:

Netty/Codec/HTTP

Bundle-Version: 4.1.86.Final

Created-By: Apache Maven Bundle Plugin

Build-Jdk: 1.8.0\_252

Implementation-URL: <https://netty.io/netty-codec-http/>

Found in path(s):

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-codec-http-4-1-86-final-jar/META-INF/MANIFEST.MF

No license file was found, but licenses were detected in source scan.

Manifest-Version: 1.0  
Implementation-Title: Netty/Transport  
Bundle-Description: Netty is an asynchronous event-driven network application framework for rapid development of maintainable high performance protocol servers and clients.  
Automatic-Module-Name: io.netty.transport  
Bundle-License: <https://www.apache.org/licenses/LICENSE-2.0>  
Bundle-SymbolicName: io.netty.transport  
Implementation-Version: 4.1.86.Final  
Built-By: norman  
Bnd-LastModified: 1670855167311  
Bundle-ManifestVersion: 2  
Implementation-Vendor-Id: io.netty  
Bundle-DocURL: <https://netty.io/>  
Bundle-Vendor: The Netty Project  
Import-Package: io.netty.buffer;version="[4.1,5)",io.netty.resolver;version="[4.1,5)",io.netty.util;version="[4.1,5)",io.netty.util.concurrent;version="[4.1,5)",io.netty.util.internal;version="[4.1,5)",io.netty.util.internal.logging;version="[4.1,5)",sun.nio.ch;resolution:=optional,org.eclipse.jetty.npn;version="[1,2)";resolution:=optional,org.eclipse.jetty.alpn;version="[1,2)";resolution:=optional  
Require-Capability: osgi.ee;filter="(&(osgi.ee=JavaSE)(version=1.6))"  
Tool: Bnd-2.4.1.201501161923  
Implementation-Vendor: The Netty Project  
Export-Package: io.netty.bootstrap;uses:="io.netty.channel,io.netty.resolver,io.netty.util";version="4.1.86",io.netty.channel;uses:="io.netty.bootstrap,io.netty.buffer,io.netty.util,io.netty.util.concurrent";version="4.1.86",io.netty.channel.embedded;uses:="io.netty.channel";version="4.1.86",io.netty.channel.group;uses:="io.netty.channel,io.netty.util.concurrent";version="4.1.86",io.netty.channel.internal;version="4.1.86",io.netty.channel.local;uses:="io.netty.channel";version="4.1.86",io.netty.channel.nio;uses:="io.netty.buffer,io.netty.channel,io.netty.util,io.netty.util.concurrent";version="4.1.86",io.netty.channel.nio.oio;uses:="io.netty.buffer,io.netty.channel";version="4.1.86",io.netty.channel.pool;uses:="io.netty.bootstrap,io.netty.channel,io.netty.util.concurrent";version="4.1.86",io.netty.channel.socket;uses:="io.netty.buffer,io.netty.channel,io.netty.util";version="4.1.86",io.netty.channel.socket.nio;uses:="io.netty.buffer,io.netty.channel,io.netty.channel.nio,io.netty.channel.socket";version="4.1.86",io.netty.channel.socket.oio;uses:="io.netty.buffer,io.netty.channel,io.netty.channel.oio,io.netty.channel.socket";version="4.1.86"  
Bundle-Name: Netty/Transport  
Bundle-Version: 4.1.86.Final  
Created-By: Apache Maven Bundle Plugin  
Build-Jdk: 1.8.0\_252  
Implementation-URL: <https://netty.io/netty-transport/>

Found in path(s):

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-transport-4-1-86-final-jar/META-INF/MANIFEST.MF

No license file was found, but licenses were detected in source scan.

Manifest-Version: 1.0

Implementation-Title: Netty/Buffer

Bundle-Description: Netty is an asynchronous event-driven network application framework for rapid development of maintainable high performance protocol servers and clients.

Automatic-Module-Name: io.netty.buffer

Bundle-License: <https://www.apache.org/licenses/LICENSE-2.0>

Bundle-SymbolicName: io.netty.buffer

Implementation-Version: 4.1.86.Final

Built-By: norman

Bnd-LastModified: 1670855150807

Bundle-ManifestVersion: 2

Implementation-Vendor-Id: io.netty

Bundle-DocURL: <https://netty.io/>

Bundle-Vendor: The Netty Project

Import-Package: io.netty.util;version="[4.1,5)",io.netty.util.concurrent;version="[4.1,5)",io.netty.util.internal;version="[4.1,5)",io.netty.util.internal.logging;version="[4.1,5)",sun.nio.ch;resolution:=optional,org.eclipse.jetty.npn;version="[1,2)";resolution:=optional,org.eclipse.jetty.alpn;version="[1,2)";resolution:=optional

Require-Capability:

osgi.ee;filter="(&(osgi.ee=JavaSE)(version=1.6))"

Tool: Bnd-2.4.1.201501161923

Implementation-Vendor: The Netty Project

Export-Package: io.netty.buffer;uses:="io.netty.util";version="4.1.86",io.netty.buffer.search;uses:="io.netty.util";version="4.1.86"

Bundle-Name: Netty/Buffer

Bundle-Version: 4.1.86.Final

Created-By: Apache Maven Bundle Plugin

Build-Jdk: 1.8.0\_252

Implementation-URL: <https://netty.io/netty-buffer/>

Found in path(s):

\* /opt/cola/permits/1509095589\_1671715267.5524309/0/netty-zip/netty/netty-buffer-4-1-86-final-jar/META-INF/MANIFEST.MF

## 1.111 netty-handler 4.1.86.Final

### 1.111.1 Available under license :

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Found in path(s):

\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/traffic/TrafficCounter.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/traffic/ChannelTrafficShapingHandler.java  
\*  
/opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/traffic/package-info.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/traffic/GlobalTrafficShapingHandler.java

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\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/ssl/OpenSslSession.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/ssl/DefaultOpenSslKeyMaterial.java  
\*



/opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslCachingX509KeyManagerFactory.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslKeyMaterial.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/SignatureAlgorithmConverter.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslPrivateKey.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslX509KeyManagerFactory.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslKeyMaterialProvider.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslX509TrustManagerWrapper.java  
\*

/opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslCachingKeyMaterialProvider.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/ExtendedOpenSslSession.java

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Found in path(s):

\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/traffic/GlobalChannelTrafficShapingHandler.java

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Found in path(s):

\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/SslContextBuilder.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/ApplicationProtocolAccessor.java  
\*  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/ClientAuth.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslSessionTicketKey.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/util/LazyJavaxX509Certificate.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/ApplicationProtocolNames.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/ApplicationProtocolNegotiationHandler.java  
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Found in path(s):

\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/JdkSslContext.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-

jar/io/netty/handler/ipfilter/package-info.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/ssl/util/BouncyCastleSelfSignedCertGenerator.java  
\*  
/opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/ssl/util/OpenJdkSelfSignedCertGenerator.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/ipfilter/UniqueIpFilter.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/ssl/ApplicationProtocolUtil.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/ssl/JdkSslServerContext.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/ssl/OpenSslDefaultApplicationProtocolNegotiator.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/ssl/util/InsecureTrustManagerFactory.java  
\*  
/opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/ssl/util/SimpleTrustManagerFactory.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/ssl/PemReader.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/ssl/OpenSslSessionStats.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/traffic/GlobalChannelTrafficCounter.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/ssl/OpenSslEngine.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/ssl/ApplicationProtocolConfig.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/ipfilter/IpFilterRule.java  
\*  
/opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/ssl/SslUtils.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/ssl/OpenSslEngineMap.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/ssl/SslProvider.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/ssl/OpenSslSessionContext.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/ssl/OpenSslServerContext.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/ipfilter/RuleBasedIpFilter.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/ssl/JettyNpnSslEngine.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/ssl/JdkBaseApplicationProtocolNegotiator.java

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*
/opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-
jar/io/netty/handler/ssl/OpenSslContext.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-
jar/io/netty/handler/ssl/util/LazyX509Certificate.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-
jar/io/netty/handler/ipfilter/IpFilterRuleType.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-
jar/io/netty/handler/ssl/CipherSuiteFilter.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-
jar/io/netty/handler/ssl/ApplicationProtocolNegotiator.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-
jar/io/netty/handler/ssl/JdkApplicationProtocolNegotiator.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-
jar/io/netty/handler/ssl/JettyAlpnSslEngine.java
*
/opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-
jar/io/netty/handler/ssl/SslContext.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-
jar/io/netty/handler/ssl/OpenSslNpnApplicationProtocolNegotiator.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-
jar/io/netty/handler/ssl/SniHandler.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-
jar/io/netty/handler/ssl/JdkAlpnApplicationProtocolNegotiator.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-
jar/io/netty/handler/ipfilter/IpSubnetFilterRule.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-
jar/io/netty/handler/ssl/OpenSslClientContext.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-
jar/io/netty/handler/ssl/JdkNpnApplicationProtocolNegotiator.java
*
/opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-
jar/io/netty/handler/ssl/OpenSslApplicationProtocolNegotiator.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-
jar/io/netty/handler/ssl/JdkSslEngine.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-
jar/io/netty/handler/ssl/OpenSslServerSessionContext.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-
jar/io/netty/handler/ssl/IdentityCipherSuiteFilter.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-
jar/io/netty/handler/ssl/JdkSslClientContext.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-
jar/io/netty/handler/ssl/util/FingerprintTrustManagerFactory.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-
jar/io/netty/handler/ssl/SupportedCipherSuiteFilter.java
*
/opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-
jar/io/netty/handler/ssl/JdkDefaultApplicationProtocolNegotiator.java

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\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ipfilter/AbstractRemoteAddressFilter.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/Java7SslParametersUtils.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSsl.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/CipherSuiteConverter.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/util/ThreadLocalInsecureRandom.java  
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\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslClientSessionCache.java  
\*  
/opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/BouncyCastleAlpnSslUtils.java  
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\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/SslProtocols.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/BouncyCastleAlpnSslEngine.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslAsyncPrivateKeyMethod.java  
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\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslSessionId.java

\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/SslContextOption.java

\*

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\*

/opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/util/KeyManagerFactoryWrapper.java

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jar/io/netty/handler/ssl/OpenSslPrivateKeyMethod.java  
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jar/io/netty/handler/ssl/PseudoRandomFunction.java  
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jar/io/netty/handler/address/DynamicAddressConnectHandler.java  
\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/ssl/util/SimpleKeyManagerFactory.java  
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jar/io/netty/handler/address/package-info.java  
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\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/timeout/package-info.java  
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jar/io/netty/handler/ipfilter/IpSubnetFilterRuleComparator.java  
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jar/io/netty/handler/address/ResolveAddressHandler.java  
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/logging/ByteBufFormat.java  
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/ssl/util/FingerprintTrustManagerFactoryBuilder.java  
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/ssl/SslHandshakeTimeoutException.java  
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-  
jar/io/netty/handler/ssl/SslClosedEngineException.java
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\* /opt/cola/permits/1509095619\_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/pcap/package-info.java

\*

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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-
jar/io/netty/handler/ssl/OptionalSslHandler.java
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jar/io/netty/handler/ssl/SslClientHelloHandler.java
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jar/io/netty/handler/codec/spdy/SpdyHeaderBlockRawEncoder.java
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* /opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-
jar/io/netty/handler/codec/http/FullHttpRequest.java
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jar/io/netty/handler/codec/spdy/DefaultSpdyWindowUpdateFrame.java
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jar/io/netty/handler/codec/spdy/DefaultSpdyStreamFrame.java
*
/opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-
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* /opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-
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* /opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-
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jar/io/netty/handler/codec/spdy/DefaultSpdyHeaders.java
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jar/io/netty/handler/codec/http/HttpHeaderNames.java  
* /opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-  
jar/io/netty/handler/codec/http/websocketx/extensions/WebSocketServerExtensionHandshaker.java  
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* /opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-  
jar/io/netty/handler/codec/http/websocketx/Utf8FrameValidator.java  
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jar/io/netty/handler/codec/http/HttpHeadersEncoder.java  
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jar/io/netty/handler/codec/http/websocketx/extensions/compression/DeflateEncoder.java  
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jar/io/netty/handler/codec/http/websocketx/extensions/WebSocketClientExtensionHandshaker.java  
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jar/io/netty/handler/codec/http/websocketx/extensions/compression/WebSocketClientCompressionHandler.java
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* /opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-
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* /opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-
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jar/io/netty/handler/codec/http/websocketx/extensions/WebSocketServerExtension.java
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jar/io/netty/handler/codec/http/cookie/CookieEncoder.java
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\* /opt/cola/permits/1509095605\_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-jar/io/netty/handler/codec/http/cookie/CookieHeaderNames.java  
\* /opt/cola/permits/1509095605\_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-jar/io/netty/handler/codec/http/cookie/ServerCookieEncoder.java  
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Found in path(s):

\* /opt/cola/permits/1509095605\_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-jar/io/netty/handler/codec/http/cors/CorsConfigBuilder.java

## 1.113 netty-resolver 4.1.86.Final

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Found in path(s):

\* /opt/cola/permits/1509095582\_1671044586.3678293/0/netty-resolver-4-1-86-final-sources-jar/io/netty/resolver/HostsFileEntriesProvider.java

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Found in path(s):

\* /opt/cola/permits/1509095582\_1671044586.3678293/0/netty-resolver-4-1-86-final-sources-jar/META-INF/maven/io.netty/netty-resolver/pom.xml

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\* /opt/cola/permits/1509095582\_1671044586.3678293/0/netty-resolver-4-1-86-final-sources-jar/io/netty/resolver/SimpleNameResolver.java

\* /opt/cola/permits/1509095582\_1671044586.3678293/0/netty-resolver-4-1-86-final-sources-jar/io/netty/resolver/NoopAddressResolverGroup.java

\*  
/opt/cola/permits/1509095582\_1671044586.3678293/0/netty-resolver-4-1-86-final-sources-jar/io/netty/resolver/package-info.java  
\* /opt/cola/permits/1509095582\_1671044586.3678293/0/netty-resolver-4-1-86-final-sources-jar/io/netty/resolver/AddressResolverGroup.java  
\* /opt/cola/permits/1509095582\_1671044586.3678293/0/netty-resolver-4-1-86-final-sources-jar/io/netty/resolver/NoopAddressResolver.java  
\* /opt/cola/permits/1509095582\_1671044586.3678293/0/netty-resolver-4-1-86-final-sources-jar/io/netty/resolver/NameResolver.java  
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Found in path(s):  
\* /opt/cola/permits/1509095582\_1671044586.3678293/0/netty-resolver-4-1-86-final-sources-jar/io/netty/resolver/HostsFileEntries.java  
\* /opt/cola/permits/1509095582\_1671044586.3678293/0/netty-resolver-4-1-86-final-sources-jar/io/netty/resolver/ResolvedAddressTypes.java  
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\* /opt/cola/permits/1509095582\_1671044586.3678293/0/netty-resolver-4-1-86-final-sources-jar/io/netty/resolver/DefaultHostsFileEntriesResolver.java

\* /opt/cola/permits/1509095582\_1671044586.3678293/0/netty-resolver-4-1-86-final-sources-jar/io/netty/resolver/AbstractAddressResolver.java

\*

/opt/cola/permits/1509095582\_1671044586.3678293/0/netty-resolver-4-1-86-final-sources-jar/io/netty/resolver/DefaultAddressResolverGroup.java

\* /opt/cola/permits/1509095582\_1671044586.3678293/0/netty-resolver-4-1-86-final-sources-jar/io/netty/resolver/InetSocketAddressResolver.java

\* /opt/cola/permits/1509095582\_1671044586.3678293/0/netty-resolver-4-1-86-final-sources-jar/io/netty/resolver/DefaultNameResolver.java

\* /opt/cola/permits/1509095582\_1671044586.3678293/0/netty-resolver-4-1-86-final-sources-jar/io/netty/resolver/InetAddressResolver.java

\* /opt/cola/permits/1509095582\_1671044586.3678293/0/netty-resolver-4-1-86-final-sources-jar/io/netty/resolver/AddressResolver.java

\* /opt/cola/permits/1509095582\_1671044586.3678293/0/netty-resolver-4-1-86-final-sources-jar/io/netty/resolver/CompositeNameResolver.java

\* /opt/cola/permits/1509095582\_1671044586.3678293/0/netty-resolver-4-1-86-final-sources-jar/io/netty/resolver/HostsFileParser.java

\* /opt/cola/permits/1509095582\_1671044586.3678293/0/netty-resolver-4-1-86-final-sources-jar/io/netty/resolver/HostsFileEntriesResolver.java

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\* /opt/cola/permits/1509095582\_1671044586.3678293/0/netty-resolver-4-1-86-final-sources-jar/io/netty/resolver/RoundRobinInetAddressResolver.java

# 1.114 netty-codec 4.1.86.Final

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```

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```
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/Bzip2HuffmanStageEncoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/SnappyFramedEncoder.java
*
/opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/Bzip2MTFAndRLE2StageEncoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/FastLz.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/json/JsonObjectDecoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/AsciiHeadersEncoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/Bzip2Constants.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/SnappyFramedDecoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/json/package-info.java
*
/opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/LzfDecoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/Bzip2Encoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
```

```
jar/io/netty/handler/codec/compression/Lz4Constants.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/DecoderResultProvider.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/FastLzFrameDecoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/Bzip2MoveToFrontTable.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/Lz4FrameDecoder.java
*
/opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/Bzip2HuffmanStageDecoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/Bzip2BlockCompressor.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/FastLzFrameEncoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/Bzip2DivSufSort.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/Bzip2BitWriter.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/MessageAggregationException.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/Bzip2BitReader.java
*
/opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/Bzip2Decoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/Crc32.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/Bzip2HuffmanAllocator.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/Bzip2BlockDecompressor.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/LzfEncoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/Bzip2Rand.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/Lz4FrameEncoder.java
*
/opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/LzmaFrameEncoder.java
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*/
/*
* Written by Robert Harder and released to the public domain, as explained at
* https://creativecommons.org/licenses/publicdomain
*/
/**
* Enumeration of supported Base64 dialects.
* <p>
* The internal lookup tables in this class has been derived from
* <a href="http://iharder.sourceforge.net/current/java/base64/">Robert
  Harder's Public Domain
* Base64 Encoder/Decoder</a>.
*/
```

Found in path(s):

```
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io.netty.handler.codec.base64/Base64Dialect.java
```

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Found in path(s):

```
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/META-INF/native-
image/io.netty.netty-codec/native-image.properties
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\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-  
jar/io/netty/handler/codec/DefaultHeaders.java  
\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-  
jar/io/netty/handler/codec/EmptyHeaders.java  
\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-  
jar/io/netty/handler/codec/Headers.java

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\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-  
jar/io/netty/handler/codec/compression/Lz4XXHash32.java

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*/
/*
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* https://creativecommons.org/licenses/publicdomain
*/
/**
* Utility class for { @link ByteBuffer } that encodes and decodes to and from
* Base64 notation.
* <p>
* The encoding and decoding algorithm in this class has been derived from
* Robert Harder's Public Domain
* Base64 Encoder/Decoder</a>.
*/
```

Found in path(s):

```
*/opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/base64/Base64.java
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*/
/**
* A decoder that splits the received { @link ByteBuffer }s dynamically by the
* value of the length field in the message. It is particularly useful when you
* decode a binary message which has an integer header field that represents the
* length of the message body or the whole message.
*
* <p>
* { @link LengthFieldBasedFrameDecoder } has many configuration parameters so
* that it can decode any message with a length field, which is often seen in
* proprietary client-server protocols. Here are some example that will give
* you the basic idea on which option does what.
```

\*  
 \* <h3>2 bytes length field at offset 0, do not strip header</h3>  
 \*  
 \* The value of the length field in this example is <tt>12 (0x0C)</tt> which  
 \* represents the length of "HELLO, WORLD". By default, the decoder assumes  
 \* that the length field represents the number of the bytes that follows the  
 \* length field. Therefore, it can be decoded with the simplistic parameter  
 \* combination.

```
* <pre>
* <b>lengthFieldOffset</b> = <b>0</b>
* <b>lengthFieldLength</b> = <b>2</b>
* lengthAdjustment = 0
* initialBytesToStrip = 0 (= do not strip header)
```

```
* BEFORE DECODE (14 bytes)    AFTER DECODE (14 bytes)
* +-----+-----+ +-----+-----+
* | Length | Actual Content
* |---->| Length | Actual Content |
* | 0x000C | "HELLO, WORLD" | | 0x000C | "HELLO, WORLD" |
* +-----+-----+ +-----+-----+
```

\* <h3>2 bytes length field at offset 0, strip header</h3>  
 \*  
 \* Because we can get the length of the content by calling  
 \* { @link ByteBuf#readableBytes() }, you might want to strip the length  
 \* field by specifying <tt>initialBytesToStrip</tt>. In this example, we  
 \* specified <tt>2</tt>, that is same with the length of the length field, to  
 \* strip the first two bytes.

```
* <pre>
* lengthFieldOffset = 0
* lengthFieldLength = 2
* lengthAdjustment = 0
* <b>initialBytesToStrip</b> = <b>2</b> (= the length of the Length field)
```

```
* BEFORE DECODE (14 bytes)    AFTER DECODE (12 bytes)
* +-----+-----+ +-----+
* | Length | Actual Content |---->| Actual Content |
* | 0x000C | "HELLO, WORLD" | | "HELLO, WORLD" |
* +-----+-----+ +-----+
```

\* <h3>2 bytes length field at offset 0, do not strip header, the length field  
 \* represents the length of the whole message</h3>  
 \*  
 \* In most cases, the length field represents the length of the message body  
 \* only, as shown in the previous examples. However, in some protocols, the  
 \* length field represents the length of the whole message, including the

\* message header. In such a case, we specify a non-zero  
 \* `<tt>lengthAdjustment</tt>`. Because the length value in this example message  
 \* is always greater than the body length by `<tt>2</tt>`, we specify `<tt>-2</tt>`  
 \* as `<tt>lengthAdjustment</tt>` for compensation.

```
* <pre>
* lengthFieldOffset = 0
* lengthFieldLength = 2
* <b>lengthAdjustment</b> = <b>-2</b> (= the length of the Length field)
* initialBytesToStrip = 0
*
```

\* BEFORE DECODE (14 bytes)      AFTER DECODE (14 bytes)

```
* +-----+-----+ +-----+-----+
* | Length | Actual Content |---->| Length | Actual
* Content |
* | 0x000E | "HELLO, WORLD" | | 0x000E | "HELLO, WORLD" |
* +-----+-----+ +-----+-----+
* </pre>
```

\* `<h3>3 bytes length field at the end of 5 bytes header, do not strip header</h3>`

\* The following message is a simple variation of the first example. An extra  
 \* header value is prepended to the message. `<tt>lengthAdjustment</tt>` is zero  
 \* again because the decoder always takes the length of the prepended data into  
 \* account during frame length calculation.

```
* <pre>
* <b>lengthFieldOffset</b> = <b>2</b> (= the length of Header 1)
* <b>lengthFieldLength</b> = <b>3</b>
* lengthAdjustment = 0
* initialBytesToStrip = 0
*
```

\* BEFORE DECODE (17 bytes)      AFTER DECODE (17 bytes)

```
* +-----+-----+-----+ +-----+-----+-----+
* | Header 1 | Length | Actual Content |---->| Header 1 | Length | Actual Content |
* | 0xCAFE | 0x00000C | "HELLO, WORLD" |
* | 0xCAFE | 0x00000C | "HELLO, WORLD" |
* +-----+-----+-----+ +-----+-----+-----+
* </pre>
```

\* `<h3>3 bytes length field at the beginning of 5 bytes header, do not strip header</h3>`

\* This is an advanced example that shows the case where there is an extra  
 \* header between the length field and the message body. You have to specify a  
 \* positive `<tt>lengthAdjustment</tt>` so that the decoder counts the extra  
 \* header into the frame length calculation.

```
* <pre>
* lengthFieldOffset = 0
* lengthFieldLength = 3
* <b>lengthAdjustment</b> = <b>2</b> (= the length of Header 1)
```

```

* initialBytesToStrip = 0
*
* BEFORE DECODE (17 bytes)          AFTER DECODE (17 bytes)
* +-----+-----+-----+-----+ +-----+-----+-----+-----+
* | Length | Header 1 | Actual Content |---->| Length | Header 1 | Actual Content |
* | 0x00000C | 0xCAFE | "HELLO, WORLD" |    | 0x00000C | 0xCAFE | "HELLO,
* WORLD" |
* +-----+-----+-----+-----+ +-----+-----+-----+-----+
* </pre>

```

\* <h3>2 bytes length field at offset 1 in the middle of 4 bytes header,  
\* strip the first header field and the length field</h3>

\* This is a combination of all the examples above. There are the prepended  
\* header before the length field and the extra header after the length field.  
\* The prepended header affects the <tt>lengthFieldOffset</tt> and the extra  
\* header affects the <tt>lengthAdjustment</tt>. We also specified a non-zero  
\* <tt>initialBytesToStrip</tt> to strip the length field and the prepended  
\* header from the frame. If you don't want to strip the prepended header, you  
\* could specify <tt>0</tt> for <tt>initialBytesToSkip</tt>.

```

* <pre>
* lengthFieldOffset = 1 (= the length of HDR1)
* lengthFieldLength = 2
* <b>lengthAdjustment</b> = <b>1</b> (= the length of HDR2)
* <b>initialBytesToStrip</b> = <b>3</b> (= the length of HDR1 +
* LEN)

```

```

* BEFORE DECODE (16 bytes)          AFTER DECODE (13 bytes)
* +-----+-----+-----+-----+ +-----+-----+-----+-----+
* | HDR1 | Length | HDR2 | Actual Content |---->| HDR2 | Actual Content |
* | 0xCA | 0x000C | 0xFE | "HELLO, WORLD" |    | 0xFE | "HELLO, WORLD" |
* +-----+-----+-----+-----+ +-----+-----+-----+-----+
* </pre>

```

\* <h3>2 bytes length field at offset 1 in the middle of 4 bytes header,  
\* strip the first header field and the length field, the length field  
\* represents the length of the whole message</h3>

\* Let's give another twist to the previous example. The only difference from  
\* the previous example is that the length field represents the length of the  
\* whole message instead of the message body, just like the third example.  
\* We have to count the length of HDR1 and Length into <tt>lengthAdjustment</tt>.  
\* Please note that we don't need to take the length of HDR2 into account  
\* because  
\* the length field already includes the whole header length.

```

* <pre>
* lengthFieldOffset = 1
* lengthFieldLength = 2

```

```

* <b>lengthAdjustment</b> = <b>-3</b> (= the length of HDR1 + LEN, negative)
* <b>initialBytesToStrip</b> = <b> 3</b>
*
* BEFORE DECODE (16 bytes)                AFTER DECODE (13 bytes)
* +-----+-----+-----+-----+-----+ +-----+-----+-----+
* | HDR1 | Length | HDR2 | Actual Content |----->| HDR2 | Actual Content |
* | 0xCA | 0x0010 | 0xFE | "HELLO, WORLD" | | 0xFE | "HELLO, WORLD" |
* +-----+-----+-----+-----+-----+ +-----+-----+-----+
* </pre>
* @see LengthFieldPrepender
*/

```

Found in path(s):

```

* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/LengthFieldBasedFrameDecoder.java

```

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Found in path(s):

```

* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/protobuf/ProtobufEncoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/HeadersUtils.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/ProtocolDetectionResult.java
*
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/ProtocolDetectionState.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/protobuf/ProtobufVarint32LengthFieldPrepender.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/UnsupportedValueConverter.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-

```

```
jar/io/netty/handler/codec/protobuf/ProtobufVarint32FrameDecoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/protobuf/ProtobufDecoderNano.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/protobuf/ProtobufEncoderNano.java
*
/opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/protobuf/ProtobufDecoder.java
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```
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/DecompressionException.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/base64/Base64Decoder.java
*
/opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/marshalling/package-info.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/serialization/ReferenceMap.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/JZlibDecoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/marshalling/ThreadLocalUnmarshallerProvider.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/marshalling/DefaultMarshallerProvider.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/string/StringDecoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/FixedLengthFrameDecoder.java
*
```

/opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/compression/ZlibWrapper.java  
\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/ReplayingDecoder.java  
\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/ByteToMessageDecoder.java  
\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/DecoderException.java  
\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/serialization/CompactObjectInputStream.java  
\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/PrematureChannelClosureException.java  
\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/compression/ZlibUtil.java  
\*  
/opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/UnsupportedMessageTypeException.java  
\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/serialization/ObjectDecoderInputStream.java  
\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/compression/SnappyFrameDecoder.java  
\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/marshalling/LimitingByteInput.java  
\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/MessageToMessageDecoder.java  
\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/ReplayingDecoderByteBuf.java  
\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/compression/ZlibCodecFactory.java  
\*  
/opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/MessageToByteEncoder.java  
\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/serialization/CompatibleObjectEncoder.java  
\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/marshalling/DefaultUnmarshallerProvider.java  
\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/LengthFieldPrepender.java  
\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/marshalling/ChannelBufferByteInput.java  
\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/marshalling/ChannelBufferByteOutput.java  
\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/DecoderResult.java  
\*  
/opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/string/StringEncoder.java  
\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-



```

jar/io/netty/handler/codec/compression/JdkZlibEncoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/MessageToMessageCodec.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/CorruptedFrameException.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/DelimiterBasedFrameDecoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/xml/package-info.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/package-info.java
*
/opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/MessageAggregator.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/MessageToMessageEncoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/marshalling/CompatibleMarshallingDecoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/base64/Base64Encoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/SnappyFrameEncoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/serialization/ObjectDecoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/serialization/ClassResolver.java
*
/opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/marshalling/MarshallerProvider.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/Delimiters.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/serialization/CachingClassResolver.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/serialization/ObjectEncoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/Snappy.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/bytes/ByteArrayDecoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/CompressionException.java
*
/opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/serialization/ClassResolvers.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/protobuf/package-info.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/ZlibDecoder.java

```

\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-  
 jar/io/netty/handler/codec/marshalling/MarshallingEncoder.java  
 \* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-  
 jar/io/netty/handler/codec/marshalling/MarshallingDecoder.java  
 \* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-  
 jar/io/netty/handler/codec/marshalling/UnmarshallerProvider.java  
 \* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-  
 jar/io/netty/handler/codec/compression/ZlibEncoder.java  
 \*  
 /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-  
 jar/io/netty/handler/codec/CodecException.java  
 \* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-  
 jar/io/netty/handler/codec/marshalling/CompatibleMarshallingEncoder.java  
 \* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-  
 jar/io/netty/handler/codec/serialization/package-info.java  
 \* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-  
 jar/io/netty/handler/codec/LineBasedFrameDecoder.java  
 \* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-  
 jar/io/netty/handler/codec/marshalling/ThreadLocalMarshallerProvider.java  
 \* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-  
 jar/io/netty/handler/codec/TooLongFrameException.java  
 \* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-  
 jar/io/netty/handler/codec/serialization/CompactObjectOutputStream.java  
 \*  
 /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-  
 jar/io/netty/handler/codec/base64/package-info.java  
 \* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-  
 jar/io/netty/handler/codec/marshalling/ContextBoundUnmarshallerProvider.java  
 \* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-  
 jar/io/netty/handler/codec/bytes/ByteArrayEncoder.java  
 \* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-  
 jar/io/netty/handler/codec/serialization/ObjectEncoderOutputStream.java  
 \* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-  
 jar/io/netty/handler/codec/serialization/SoftReferenceMap.java  
 \* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-  
 jar/io/netty/handler/codec/ByteToMessageCodec.java  
 \* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-  
 jar/io/netty/handler/codec/package-info.java  
 \*  
 /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-  
 jar/io/netty/handler/codec/bytes/package-info.java  
 \* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-  
 jar/io/netty/handler/codec/serialization/WeakReferenceMap.java  
 \* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-  
 jar/io/netty/handler/codec/string/package-info.java  
 \* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-  
 jar/io/netty/handler/codec/compression/JZlibEncoder.java  
 \* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-

jar/io/netty/handler/codec/serialization/ClassLoaderClassResolver.java

\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-

jar/io/netty/handler/codec/EncoderException.java

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\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-

jar/io/netty/handler/codec/compression/Crc32c.java

\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-

jar/io/netty/handler/codec/xml/XmlFrameDecoder.java

\*

/opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-

jar/io/netty/handler/codec/compression/JdkZlibDecoder.java

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```
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/CompressionOptions.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/ZstdOptions.java
*
/opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/BrotliEncoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/StandardCompressionOptions.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/BrotliDecoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/ZstdEncoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/Zstd.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/DeflateOptions.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/BrotliOptions.java
*
/opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/Brotli.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/GzipOptions.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/ZstdConstants.java
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```
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INF/maven/io.netty/netty-codec/pom.xml
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jar/io/netty/handler/codec/CodecOutputList.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/ByteBufChecksum.java
*
 /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/string/LineEncoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/string/LineSeparator.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/DatagramPacketEncoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/DateFormatter.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/DatagramPacketDecoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-
jar/io/netty/handler/codec/compression/CompressionUtil.java
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\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/DefaultHeadersImpl.java  
\* /opt/cola/permits/1509095575\_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/CharSequenceValueConverter.java

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\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/socket/oio/DefaultOioDatagramChannelConfig.java  
\*  
/opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/PendingBytesTracker.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/nio/SelectedSelectionKeySetSelector.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/socket/ChannelInputShutdownReadComplete.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/socket/oio/OioDatagramChannelConfig.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/internal/ChannelUtils.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/socket/ChannelOutputShutdownException.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/socket/ChannelOutputShutdownEvent.java  
\*  
/opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/DelegatingChannelPromiseNotifier.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/internal/package-info.java  
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/opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/bootstrap/ChannelFactory.java

\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/ChannelProgressivePromise.java

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\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/DefaultAddressedEnvelope.java

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\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/ChannelId.java

\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/MessageSizeEstimator.java

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/opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/group/ChannelGroupException.java

\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/group/ChannelMatchers.java

\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/DefaultChannelProgressivePromise.java

\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/SimpleChannelInboundHandler.java

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\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/AbstractEventLoopGroup.java

\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/socket/oio/DefaultOioSocketChannelConfig.java

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\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/ChannelHandlerAdapter.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/group/DefaultChannelGroup.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/socket/oio/OioSocketChannelConfig.java  
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\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-

jar/io/netty/channel/socket/DefaultServerSocketChannelConfig.java  
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jar/io/netty/channel/CombinedChannelDuplexHandler.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-  
jar/io/netty/bootstrap/Bootstrap.java  
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jar/io/netty/channel/ChannelDuplexHandler.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-  
jar/io/netty/channel/FixedRecvByteBufAllocator.java  
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/opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-  
jar/io/netty/channel/AdaptiveRecvByteBufAllocator.java  
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jar/io/netty/channel/ChannelPromise.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-  
jar/io/netty/channel/nio/NioEventLoopGroup.java  
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jar/io/netty/channel/oio/AbstractOioByteChannel.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-  
jar/io/netty/channel/group/CombinedIterator.java  
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jar/io/netty/channel/nio/AbstractNioChannel.java  
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jar/io/netty/channel/DefaultEventLoop.java  
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jar/io/netty/channel/socket/nio/ProtocolFamilyConverter.java  
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jar/io/netty/channel/AbstractChannel.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-  
jar/io/netty/channel/EventLoopGroup.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-  
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jar/io/netty/channel/ChannelPipeline.java  
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jar/io/netty/channel/socket/oio/OioServerSocketChannel.java  
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jar/io/netty/channel/ChannelMetadata.java

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 \* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/ThreadPerChannelEventLoop.java  
 \* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/oio/AbstractOioChannel.java  
 \* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/DefaultFileRegion.java  
 \* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/group/ChannelGroupFuture.java  
 \*  
 /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/socket/DatagramPacket.java  
 \* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/FileRegion.java  
 \* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/socket/nio/package-info.java  
 \* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/socket/oio/OioSocketChannel.java  
 \* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/local/LocalServerChannel.java  
 \* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/group/ChannelGroupFutureListener.java  
 \* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/SingleThreadEventLoop.java  
 \*  
 /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/local/package-info.java  
 \* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/EventLoopException.java  
 \* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/group/DefaultChannelGroupFuture.java  
 \* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/socket/ServerSocketChannelConfig.java  
 \* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-

jar/io/netty/channel/nio/package-info.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/ChannelOutboundHandlerAdapter.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/ChannelFlushPromiseNotifier.java  
\*  
/opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/group/package-info.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/nio/NioEventLoop.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/ChannelHandlerContext.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/local/LocalAddress.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/socket/nio/NioDatagramChannel.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/nio/AbstractNioByteChannel.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/ChannelFutureListener.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/embedded/EmbeddedSocketAddress.java  
\*  
/opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/socket/nio/NioServerSocketChannel.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/bootstrap/package-info.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/ChannelInboundHandlerAdapter.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/ChannelPromiseAggregator.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/VoidChannelPromise.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/socket/DatagramChannelConfig.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/socket/SocketChannel.java  
\*  
/opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/bootstrap/AbstractBootstrap.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/FailedChannelFuture.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/ChannelException.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/socket/DefaultDatagramChannelConfig.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/AbstractChannelHandlerContext.java

```

* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/ServerChannel.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/DefaultChannelPipeline.java
*
/opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/socket/oio/package-info.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/SucceededChannelFuture.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/ChannelPipelineException.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/MultithreadEventLoopGroup.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/socket/DatagramChannel.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/DefaultChannelPromise.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/ChannelOption.java
*
/opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/DefaultEventLoopGroup.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/EventLoop.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/embedded/package-info.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/ThreadPerChannelEventLoopGroup.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/local/LocalEventLoopGroup.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/ChannelInitializer.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/nio/AbstractNioMessageChannel.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/DefaultChannelConfig.java
*
/opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/socket/oio/OioDatagramChannel.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/ChannelOutboundHandler.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/oio/package-info.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/embedded/EmbeddedChannel.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/nio/NioTask.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-

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```
jar/io/netty/channel/oio/OioEventLoopGroup.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/CompleteChannelFuture.java
*
/opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/socket/DefaultSocketChannelConfig.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/ChannelPromiseNotifier.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/embedded/EmbeddedEventLoop.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/Channel.java
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* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/oio/OioByteStreamChannel.java
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\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/socket/DuplexChannelConfig.java

\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/StacklessClosedChannelException.java

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\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/DefaultMaxMessagesRecvByteBufAllocator.java

\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/pool/ChannelHealthChecker.java

\*

/opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/pool/package-info.java

\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/pool/AbstractChannelPoolMap.java

\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/pool/AbstractChannelPoolHandler.java

\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/MaxBytesRecvByteBufAllocator.java

\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/DefaultMaxBytesRecvByteBufAllocator.java

\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/pool/SimpleChannelPool.java

\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/pool/FixedChannelPool.java

\*



```
/opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/pool/ChannelPool.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/MaxMessagesRecvByteBufAllocator.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/pool/ChannelPoolMap.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/pool/ChannelPoolHandler.java
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* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/META-
INF/maven/io.netty/netty-transport/pom.xml
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* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/SimpleUserEventChannelHandler.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/socket/nio/NioChannelOption.java
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* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/AbstractEventLoop.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/embedded/EmbeddedChannelId.java
*
/opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/PendingWriteQueue.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/ChannelFactory.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-
jar/io/netty/channel/ReflectiveChannelFactory.java
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*/
/**
* Handles an I/O event or intercepts an I/O operation, and forwards it to its next handler in
* its { @link ChannelPipeline }.
*
* <h3>Sub-types</h3>
* <p>
* { @link ChannelHandler } itself does not provide many methods, but you usually have to implement one of its
subtypes:
* <ul>
* <li>{ @link
ChannelInboundHandler } to handle inbound I/O events, and</li>
* <li>{ @link ChannelOutboundHandler } to handle outbound I/O operations.</li>
* </ul>
* </p>
* <p>
* Alternatively, the following adapter classes are provided for your convenience:
* <ul>
* <li>{ @link ChannelInboundHandlerAdapter } to handle inbound I/O events,</li>
* <li>{ @link ChannelOutboundHandlerAdapter } to handle outbound I/O operations, and</li>
* <li>{ @link ChannelDuplexHandler } to handle both inbound and outbound events</li>
* </ul>
* </p>
* <p>
* For more information, please refer to the documentation of each subtype.
* </p>
*
* <h3>The context object</h3>
* <p>
* A { @link ChannelHandler } is provided with a { @link ChannelHandlerContext }
* object. A { @link ChannelHandler } is supposed to interact with the
* { @link ChannelPipeline } it belongs to via a context object. Using the
* context object, the { @link ChannelHandler } can pass events upstream or
* downstream, modify the pipeline dynamically,
* or store the information
* (using { @link AttributeKey }s) which is specific to the handler.
*
* <h3>State management</h3>
*
* A { @link ChannelHandler } often needs to store some stateful information.
* The simplest and recommended approach is to use member variables:
* <pre>
* public interface Message {
*     // your methods here
* }
*

```



```

* { @code @Sharable }
* public class DataServerHandler extends { @link SimpleChannelInboundHandler } &lt; Message &gt; {
*     private final { @link AttributeKey } &lt; { @link Boolean } &gt; auth =
*         { @link AttributeKey#valueOf(String) AttributeKey.valueOf("auth") };
*
*     { @code @Override }
*     public void channelRead({ @link ChannelHandlerContext } ctx, Message message) {
*         { @link Attribute } &lt; { @link Boolean } &gt; attr = ctx.attr(auth);
*         if (message instanceof LoginMessage) {
*             authenticate((LoginMessage) o);
*             <b>attr.set(true)</b>;
*         } else (message instanceof GetDataMessage) {
*             if (<b>Boolean.TRUE.equals(attr.get())</b>) {
*                 ctx.writeAndFlush(fetchSecret((GetDataMessage) o));
*             } else {
*                 fail();
*             }
*         }
*     }
* }
* ...
* }
* </pre>

```

\* Now that the

state of the handler is attached to the { @link ChannelHandlerContext }, you can add the

\* same handler instance to different pipelines:

```

* <pre>
* public class DataServerInitializer extends { @link ChannelInitializer } &lt; { @link Channel } &gt; {
*
*     private static final DataServerHandler <b>SHARED</b> = new DataServerHandler();
*
*     { @code @Override }
*     public void initChannel({ @link Channel } channel) {
*         channel.pipeline().addLast("handler", <b>SHARED</b>);
*     }
* }
* </pre>

```

\*

\*

\* <h4>The { @code @Sharable } annotation</h4>

\* <p>

\* In the example above which used an { @link AttributeKey },

\* you might have noticed the { @code @Sharable } annotation.

\* <p>

\* If a { @link ChannelHandler } is annotated with the { @code @Sharable }

\* annotation, it means you can create an instance of the handler just once and

\* add it to one or more { @link ChannelPipeline }s multiple times without

\* a race condition.

\* <p>

\* If this annotation is not specified, you have to create a new handler  
\* instance every time you add it to a pipeline because it has unshared state  
\* such as member variables.  
\* <p>  
\* This annotation is provided for documentation purpose, just like  
\* <a href="http://www.javaconcurrencyinpractice.com/annotations/doc/">the JCIP annotations</a>.  
\*  
\* <h3>Additional resources worth reading</h3>  
\* <p>  
\* Please refer to the { @link ChannelHandler }, and  
\* { @link ChannelPipeline } to find out more about inbound and outbound operations,  
\* what fundamental differences they have, how they flow in a pipeline, and how to handle  
\* the operation in your application.  
\*/

Found in path(s):

\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/ChannelHandler.java

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\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/DefaultChannelHandlerContext.java

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\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/EventLoopTaskQueueFactory.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/ExtendedClosedChannelException.java  
\*

/opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/ChannelHandlerMask.java

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\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/socket/DuplexChannel.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/ChannelInboundInvoker.java  
\*  
/opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/SelectStrategy.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/bootstrap/ServerBootstrapConfig.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/PreferHeapByteBufAllocator.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/bootstrap/AbstractBootstrapConfig.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/DefaultSelectStrategy.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/SelectStrategyFactory.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/DefaultSelectStrategyFactory.java  
\*  
/opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/WriteBufferWaterMark.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/group/VoidChannelGroupFuture.java  
\* /opt/cola/permits/1509095609\_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/bootstrap/BootstrapConfig.java

## 1.116 netty-transport-native-unix-common

### 4.1.86.Final

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jar/io/netty/channel/unix/PeerCredentials.java
* /opt/cola/permits/1509095595_1671044615.8406854/0/netty-transport-native-unix-common-4-1-86-final-sources-
jar/netty_unix_util.h
*
/opt/cola/permits/1509095595_1671044615.8406854/0/netty-transport-native-unix-common-4-1-86-final-sources-
jar/io/netty/channel/unix/ErrorsStaticallyReferencedJniMethods.java
* /opt/cola/permits/1509095595_1671044615.8406854/0/netty-transport-native-unix-common-4-1-86-final-sources-
jar/io/netty/channel/unix/LimitsStaticallyReferencedJniMethods.java
* /opt/cola/permits/1509095595_1671044615.8406854/0/netty-transport-native-unix-common-4-1-86-final-sources-
jar/netty_unix_util.c
* /opt/cola/permits/1509095595_1671044615.8406854/0/netty-transport-native-unix-common-4-1-86-final-sources-
jar/io/netty/channel/unix/SocketWritableByteChannel.java
* /opt/cola/permits/1509095595_1671044615.8406854/0/netty-transport-native-unix-common-4-1-86-final-sources-
jar/netty_unix_limits.c
* /opt/cola/permits/1509095595_1671044615.8406854/0/netty-transport-native-unix-common-4-1-86-final-sources-
jar/io/netty/channel/unix/Limits.java
* /opt/cola/permits/1509095595_1671044615.8406854/0/netty-transport-native-unix-common-4-1-86-final-sources-
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\* /opt/cola/permits/1509095595\_1671044615.8406854/0/netty-transport-native-unix-common-4-1-86-final-sources-jar/io/netty/channel/unix/DomainDatagramChannel.java

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/opt/cola/permits/1509095595\_1671044615.8406854/0/netty-transport-native-unix-common-4-1-86-final-sources-jar/io/netty/channel/unix/DatagramSocketAddress.java

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jar/io/netty/channel/unix/package-info.java
*
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jar/io/netty/channel/unix/IovArray.java
* /opt/cola/permits/1509095595_1671044615.8406854/0/netty-transport-native-unix-common-4-1-86-final-sources-
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/opt/cola/permits/1509095595\_1671044615.8406854/0/netty-transport-native-unix-common-4-1-86-final-sources-jar/io/netty/channel/unix/GenericUnixChannelOption.java

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## 1.117 slf4j 1.6.6

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\* /opt/cola/permits/1512417657\_1673636624.6005318/0/slf4j-api-1-6-6-sources-jar/org/slf4j/helpers/SubstituteLoggerFactory.java  
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/opt/cola/permits/1512417657\_1673636624.6005318/0/slf4j-api-1-6-6-sources-jar/org/slf4j/helpers/NOPMDCAdapter.java  
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\* /opt/cola/permits/1512417657\_1673636624.6005318/0/slf4j-api-1-6-6-sources-jar/org/slf4j/spi/LocationAwareLogger.java  
\* /opt/cola/permits/1512417657\_1673636624.6005318/0/slf4j-api-1-6-6-sources-jar/org/slf4j/helpers/FormattingTuple.java  
\* /opt/cola/permits/1512417657\_1673636624.6005318/0/slf4j-api-1-6-6-sources-jar/org/slf4j/spi/MarkerFactoryBinder.java  
\* /opt/cola/permits/1512417657\_1673636624.6005318/0/slf4j-api-1-6-6-sources-jar/org/slf4j/helpers/MessageFormatter.java  
\*  
/opt/cola/permits/1512417657\_1673636624.6005318/0/slf4j-api-1-6-6-sources-jar/org/slf4j/helpers/NamedLoggerBase.java  
\* /opt/cola/permits/1512417657\_1673636624.6005318/0/slf4j-api-1-6-6-sources-jar/org/slf4j/spi/LoggerFactoryBinder.java

```
* /opt/cola/permits/1512417657_1673636624.6005318/0/slf4j-api-1-6-6-sources-jar/org/slf4j/MDC.java
* /opt/cola/permits/1512417657_1673636624.6005318/0/slf4j-api-1-6-6-sources-jar/org/slf4j/helpers/Util.java
* /opt/cola/permits/1512417657_1673636624.6005318/0/slf4j-api-1-6-6-sources-
jar/org/slf4j/helpers/NOPLogger.java
* /opt/cola/permits/1512417657_1673636624.6005318/0/slf4j-api-1-6-6-sources-jar/org/slf4j/ILoggerFactory.java
* /opt/cola/permits/1512417657_1673636624.6005318/0/slf4j-api-1-6-6-sources-jar/org/slf4j/Logger.java
* /opt/cola/permits/1512417657_1673636624.6005318/0/slf4j-api-1-6-6-sources-
jar/org/slf4j/helpers/NOPLoggerFactory.java
* /opt/cola/permits/1512417657_1673636624.6005318/0/slf4j-api-1-6-6-sources-
jar/org/slf4j/helpers/BasicMarker.java
*
/opt/cola/permits/1512417657_1673636624.6005318/0/slf4j-api-1-6-6-sources-jar/org/slf4j/Marker.java
* /opt/cola/permits/1512417657_1673636624.6005318/0/slf4j-api-1-6-6-sources-
jar/org/slf4j/impl/StaticMarkerBinder.java
```

## 1.118 jackson-dataformat-cbor 2.14.0

### 1.118.1 Available under license :

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## 1.119 netty-transport-classes-epoll

### 4.1.86.Final

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```
* /opt/cola/permits/1518493128_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-
jar/META-INF/maven/io.netty/netty-transport-classes-epoll/pom.xml
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* /opt/cola/permits/1518493128_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-
jar/io/netty/channel/epoll/SegmentedDatagramPacket.java
* /opt/cola/permits/1518493128_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-
jar/io/netty/channel/epoll/EpollDomainDatagramChannelConfig.java
*
```

```
/opt/cola/permits/1518493128_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-
jar/io/netty/channel/epoll/EpollDomainDatagramChannel.java
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 */
/**
 * Set the { @code TCP_MD5SIG } option on the socket. See { @code linux/tcp.h } for more details.
 * Keys can only be set on, not read to prevent a potential leak, as they are confidential.
 * Allowing them being read would mean anyone with access to the channel could get them.
 */
```

```
*/
/**
 * Set the {@code TCP_QUICKACK} option on the socket.
 * See TCP\_QUICKACK
 * for more details.
 */
```

Found in path(s):

```
*/opt/cola/permits/1518493128_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-
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 */
/**
 * Set the {@code TCP_MD5SIG} option on the socket. See {@code linux/tcp.h} for more details.
 * Keys can only be set on, not read to prevent a potential leak, as they are confidential.
 * Allowing them being read would mean anyone with access to the channel could get them.
 */
```

Found in path(s):

```
*/opt/cola/permits/1518493128_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-
jar/io/netty/channel/epoll/EpollServerSocketChannelConfig.java
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jar/io/netty/channel/epoll/NativeStaticallyReferencedJniMethods.java  
\* /opt/cola/permits/1518493128\_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-  
jar/io/netty/channel/epoll/LinuxSocket.java  
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\* /opt/cola/permits/1518493128\_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-jar/io/netty/channel/epoll/EpollDatagramChannel.java

\*

/opt/cola/permits/1518493128\_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-jar/io/netty/channel/epoll/package-info.java

\* /opt/cola/permits/1518493128\_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-jar/io/netty/channel/epoll/EpollSocketChannel.java

\* /opt/cola/permits/1518493128\_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-jar/io/netty/channel/epoll/EpollTcpInfo.java

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\* /opt/cola/permits/1518493128\_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-jar/io/netty/channel/epoll/Epoll.java

\* /opt/cola/permits/1518493128\_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-jar/io/netty/channel/epoll/EpollEventLoopGroup.java

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/opt/cola/permits/1518493128\_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-jar/io/netty/channel/epoll/EpollChannelOption.java

\* /opt/cola/permits/1518493128\_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-

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\* /opt/cola/permits/1518493128\_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-jar/io/netty/channel/epoll/EpollRecvByteAllocatorHandle.java

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/opt/cola/permits/1518493128\_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-jar/io/netty/channel/epoll/EpollMode.java

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\* /opt/cola/permits/1518493128\_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-jar/io/netty/channel/epoll/AbstractEpollStreamChannel.java

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\*

/opt/cola/permits/1518493128\_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-jar/io/netty/channel/epoll/EpollChannelConfig.java

\* /opt/cola/permits/1518493128\_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-jar/io/netty/channel/epoll/EpollDomainSocketChannel.java

\* /opt/cola/permits/1518493128\_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-jar/io/netty/channel/epoll/AbstractEpollServerChannel.java

# 1.120 kotlin-scripting-compiler-impl-embeddable 1.7.20

## 1.120.1 Available under license :

Apache-2.0

# 1.121 protobuf-java 3.21.12

## 1.121.1 Available under license :

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Manifest-Version: 1.0

Automatic-Module-Name: com.google.protobuf

Bnd-LastModified: 1671050201631

Build-Jdk: 11.0.13

Built-By: kfm

Bundle-Description: Core Protocol Buffers library. Protocol Buffers are a way of encoding structured data in an efficient yet extensible format.

Bundle-DocURL: <https://developers.google.com/protocol-buffers/>

Bundle-License: <https://opensource.org/licenses/BSD-3-Clause>

Bundle-ManifestVersion: 2

Bundle-Name: Protocol Buffers [Core]

Bundle-SymbolicName: com.google.protobuf

Bundle-Version: 3.21.12

Created-By: Apache Maven Bundle Plugin

Export-Package: com.google.protobuf;version="3.21.12"

Import-Package: sun.misc;resolution:=optional,com.google.protobuf;version="[3.21,4)"

Require-Capability: osgi.ee;filter="(&(osgi.ee=JavaSE)(version=1.7))"

Tool: Bnd-3.0.0.201509101326

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\* /opt/cola/permits/1535600625\_1674018919.1448016/0/protobuf-java-3-21-12-jar/META-INF/MANIFEST.MF

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jar/google/protobuf/compiler/plugin.proto  
* /opt/cola/permits/1535600625_1674018919.1448016/0/protobuf-java-3-21-12-  
jar/google/protobuf/source_context.proto  
* /opt/cola/permits/1535600625_1674018919.1448016/0/protobuf-java-3-21-12-jar/google/protobuf/type.proto  
*  
/opt/cola/permits/1535600625_1674018919.1448016/0/protobuf-java-3-21-12-jar/google/protobuf/field_mask.proto  
* /opt/cola/permits/1535600625_1674018919.1448016/0/protobuf-java-3-21-12-jar/google/protobuf/api.proto  
* /opt/cola/permits/1535600625_1674018919.1448016/0/protobuf-java-3-21-12-  
jar/google/protobuf/timestamp.proto  
* /opt/cola/permits/1535600625_1674018919.1448016/0/protobuf-java-3-21-12-jar/google/protobuf/duration.proto  
* /opt/cola/permits/1535600625_1674018919.1448016/0/protobuf-java-3-21-12-jar/google/protobuf/struct.proto  
* /opt/cola/permits/1535600625_1674018919.1448016/0/protobuf-java-3-21-12-jar/google/protobuf/empty.proto  
* /opt/cola/permits/1535600625_1674018919.1448016/0/protobuf-java-3-21-12-jar/google/protobuf/wrappers.proto  
* /opt/cola/permits/1535600625_1674018919.1448016/0/protobuf-java-3-21-12-jar/google/protobuf/any.proto  
* /opt/cola/permits/1535600625_1674018919.1448016/0/protobuf-java-3-21-12-  
jar/google/protobuf/descriptor.proto
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# 1.122 gson 2.10.1

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```

Found in path(s):

```
* /opt/cola/permits/1551206746_1675341574.9799197/0/wire-compiler-3-7-1-sources-  
jar/com/squareup/wire/schema/WireRun.kt  
* /opt/cola/permits/1551206746_1675341574.9799197/0/wire-compiler-3-7-1-sources-  
jar/com/squareup/wire/schema/Target.kt  
* /opt/cola/permits/1551206746_1675341574.9799197/0/wire-compiler-3-7-1-sources-  
jar/com/squareup/wire/schema/Root.kt  
*  
/opt/cola/permits/1551206746_1675341574.9799197/0/wire-compiler-3-7-1-sources-  
jar/com/squareup/wire/schema/ProfileLoader.kt  
* /opt/cola/permits/1551206746_1675341574.9799197/0/wire-compiler-3-7-1-sources-
```



jar/com/squareup/wire/schema/SchemaLoader.kt

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Found in path(s):

\* /opt/cola/permits/1551206746\_1675341574.9799197/0/wire-compiler-3-7-1-sources-jar/com/squareup/wire/WireLogger.kt

\* /opt/cola/permits/1551206746\_1675341574.9799197/0/wire-compiler-3-7-1-sources-jar/com/squareup/wire/ConsoleWireLogger.kt

\* /opt/cola/permits/1551206746\_1675341574.9799197/0/wire-compiler-3-7-1-sources-jar/com/squareup/wire/WireCompiler.kt

\*

\*/opt/cola/permits/1551206746\_1675341574.9799197/0/wire-compiler-3-7-1-sources-jar/com/squareup/wire/WireException.kt

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\* /opt/cola/permits/1551206746\_1675341574.9799197/0/wire-compiler-3-7-1-sources-jar/com/squareup/wire/schema/PartitionedSchema.kt  
\* /opt/cola/permits/1551206746\_1675341574.9799197/0/wire-compiler-3-7-1-sources-jar/com/squareup/wire/Manifest.kt  
\* /opt/cola/permits/1551206746\_1675341574.9799197/0/wire-compiler-3-7-1-sources-jar/com/squareup/wire/schema/DirectedAcyclicGraph.kt

# 1.124 glue 2.17.122

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\*/

package tasks

import groovy.util.Node

import groovy.xml.XmlParser

import org.gradle.api.DefaultTask

import org.gradle.api.file.RegularFileProperty

import org.gradle.api.provider.Property

import org.gradle.api.tasks.Input

import org.gradle.api.tasks.InputFile

import org.gradle.api.tasks.OutputFile

import org.gradle.api.tasks.TaskAction

import java.util.\*

abstract class WriteCopyrightToFile : DefaultTask() {

    @InputFile

    val path = project.file("\${project.rootDir}/.idea/copyright/apache.xml")

    @get:OutputFile

    abstract val outputFile: RegularFileProperty

    @get:Input

    val commented: Property<Boolean> = project.objects.property(Boolean::class.java).convention(true)

    @TaskAction

    fun write() {

        val file = outputFile.asFile.get()

        file.writeText(if

(commented.get()) readCopyrightCommented() else readCopyright())

    }

    private fun readCopyright(): String {

        assert(path.exists()) {

            "File \$path with copyright not found"

        }

        val xmlParser = XmlParser()

        val node = xmlParser.parse(path)

        assert(node.attribute("name") == "CopyrightManager") {

            "Format changed occasionally?"

        }



```

    val copyrightBlock = node.children().filterIsInstance<Node>().single()
    val noticeNode = copyrightBlock.children().filterIsInstance<Node>().single { it.attribute("name") == "notice" }
    return noticeNode.attribute("value").toString().replace("&#36;today.year",
GregorianCalendar()[Calendar.YEAR].toString())
}

```

```

private fun readCopyrightCommented(): String {
    return "/*\n" + readCopyright().prependIndent(" * ") + "\n */"
}
}

```

/\*

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<https://github.com/square/okhttp/>

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zlib.h -- interface of the 'zlib' general purpose compression library  
version 1.2.11, January 15th, 2017

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From strings/apr\_fnmatch.c, include/apr\_fnmatch.h, misc/unix/getopt.c, file\_io/unix/mktemp.c, strings/apr\_strings.c:

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From network\_io/unix/inet\_ntop.c, network\_io/unix/inet\_pton.c:

```
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From dso/aix/dso.c:

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From strings/apr\_strnatcmp.c, include/apr\_strings.h:

strnatcmp.c -- Perform 'natural order' comparisons of strings in C.  
Copyright (C) 2000 by Martin Pool <mbp@humblebug.org.au>

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From strings/apr\_snprintf.c:

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\* cvt - IEEE floating point formatting routines.  
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Guava - in third\_party/guava  
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## 1.129 wire-profiles 3.7.1

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```

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```
* /opt/cola/permits/1569088931_1676645219.9753337/0/wire-profiles-3-7-1-sources-
jar/com/squareup/wire/java/AdapterConstant.kt
* /opt/cola/permits/1569088931_1676645219.9753337/0/wire-profiles-3-7-1-sources-
jar/com/squareup/wire/java/internal/ProfileParser.kt
* /opt/cola/permits/1569088931_1676645219.9753337/0/wire-profiles-3-7-1-sources-
```

```
jar/com/squareup/wire/java/Profile.kt
*
/opt/cola/permits/1569088931_1676645219.9753337/0/wire-profiles-3-7-1-sources-
jar/com/squareup/wire/java/internal/ProfileFileElement.kt
* /opt/cola/permits/1569088931_1676645219.9753337/0/wire-profiles-3-7-1-sources-
jar/com/squareup/wire/java/internal/TypeConfigElement.kt
```

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```
* /opt/cola/permits/1569088938_1676645221.8978014/0/wire-grpc-server-generator-3-7-1-sources-
jar/com/squareup/wire/kotlin/grpcserver/KotlinGrpcGenerator.kt
* /opt/cola/permits/1569088938_1676645221.8978014/0/wire-grpc-server-generator-3-7-1-sources-
jar/com/squareup/wire/kotlin/grpcserver/BlockingStubGenerator.kt
*
/opt/cola/permits/1569088938_1676645221.8978014/0/wire-grpc-server-generator-3-7-1-sources-
jar/com/squareup/wire/kotlin/grpcserver/ServiceDescriptorGenerator.kt
* /opt/cola/permits/1569088938_1676645221.8978014/0/wire-grpc-server-generator-3-7-1-sources-
jar/com/squareup/wire/kotlin/grpcserver/StubGenerator.kt
* /opt/cola/permits/1569088938_1676645221.8978014/0/wire-grpc-server-generator-3-7-1-sources-
jar/com/squareup/wire/kotlin/grpcserver/ImplBaseGenerator.kt
* /opt/cola/permits/1569088938_1676645221.8978014/0/wire-grpc-server-generator-3-7-1-sources-
jar/com/squareup/wire/kotlin/grpcserver/LegacyAdapterGenerator.kt
* /opt/cola/permits/1569088938_1676645221.8978014/0/wire-grpc-server-generator-3-7-1-sources-
jar/com/squareup/wire/kotlin/grpcserver/MethodDescriptorGenerator.kt
```

# 1.131 wire-swift-generator 3.7.1

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jar/com/squareup/wire/java/JavaGenerator.java
```

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## 1.134 tre 1.2.3-r4

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jar/com/google/protobuf/util/JsonFormat.java  
* /opt/cola/permits/1578184278_1677547599.9675891/0/protobuf-java-util-3-15-6-sources-  
jar/com/google/protobuf/util/Durations.java  
*
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## 1.138 log4j-api 2.20.0

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\* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/nonapi/io/github/classgraph/fastzipfilereader/ZipFileSlice.java

\* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/nonapi/io/github/classgraph/json/ClassFieldCache.java

\* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/io/github/classgraph/TypeSignature.java

\* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/io/github/classgraph/ClassGraphClassLoader.java

\*

/opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/io/github/classgraph/ClassInfo.java

\* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/io/github/classgraph/ClassRefTypeSignature.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/nonapi/io/github/classgraph/Utils/ReflectionUtils.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/io/github/classgraph/HierarchicalTypeSignature.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/io/github/classgraph/ClassGraphException.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/nonapi/io/github/classgraph/classloaderhandler/ParentLastDelegationOrderTestClassLoaderHandler.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/io/github/classgraph/ClasspathElementFileDir.java  
 \*  
 /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/nonapi/io/github/classgraph/classloaderhandler/OSGiDefaultClassLoaderHandler.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/nonapi/io/github/classgraph/Utils/URLPathEncoder.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/nonapi/io/github/classgraph/json/JSONDeserializer.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/nonapi/io/github/classgraph/classpath/ClassLoaderFinder.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/nonapi/io/github/classgraph/classpath/ClassLoaderOrder.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/io/github/classgraph/AnnotationClassRef.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/io/github/classgraph/HasName.java  
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 /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/io/github/classgraph/ModuleInfoList.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/io/github/classgraph/ClasspathElement.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/nonapi/io/github/classgraph/classloaderhandler/ClassLoaderHandlerRegistry.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/nonapi/io/github/classgraph/Utils/JarUtils.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/nonapi/io/github/classgraph/json/JSONParser.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/nonapi/io/github/classgraph/classloaderhandler/PlexusClassWorldsClassRealmClassLoaderHandler.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/io/github/classgraph/Resource.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/io/github/classgraph/ClasspathElementPathDir.java  
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 /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/nonapi/io/github/classgraph/json/TypeResolutions.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-

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jar/io/github/classgraph/BaseTypeSignature.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/nonapi/io/github/classgraph/classloaderhandler/URLClassLoaderHandler.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/io/github/classgraph/MethodTypeSignature.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/io/github/classgraph/PotentiallyUnmodifiableList.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/nonapi/io/github/classgraph/concurrency/WorkQueue.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/nonapi/io/github/classgraph/json/JSONReference.java
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/opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/io/github/classgraph/ClassRefOrTypeVariableSignature.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/io/github/classgraph/ClasspathElementZip.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/nonapi/io/github/classgraph/utils/FastPathResolver.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/nonapi/io/github/classgraph/recycler/Resetable.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/io/github/classgraph/FieldInfoList.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/nonapi/io/github/classgraph/concurrency/InterruptedException.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/nonapi/io/github/classgraph/fastzipfilereader/LogicalZipFile.java
*
/opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/io/github/classgraph/InfoList.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/io/github/classgraph/ReferenceTypeSignature.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/nonapi/io/github/classgraph/json/ReferenceEqualityKey.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/nonapi/io/github/classgraph/json/ClassFields.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/nonapi/io/github/classgraph/classpath/ClasspathFinder.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/nonapi/io/github/classgraph/concurrency/SingletonMap.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/io/github/classgraph/AnnotationParameterValueList.java
*
/opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/nonapi/io/github/classgraph/classloaderhandler/ClassLoaderHandler.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/nonapi/io/github/classgraph/fastzipfilereader/FastZipEntry.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/nonapi/io/github/classgraph/classloaderhandler/EquinoxClassLoaderHandler.java

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\* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/io/github/classgraph/ModuleRef.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/nonapi/io/github/classgraph/classloaderhandler/ClassGraphClassLoaderHandler.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/io/github/classgraph/PackageInfoList.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/io/github/classgraph/ClasspathElementModule.java  
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 /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/io/github/classgraph/TypeArgument.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/nonapi/io/github/classgraph/scanspec/ScanSpec.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/io/github/classgraph/ArrayTypeSignature.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/nonapi/io/github/classgraph/classpath/ClasspathOrder.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/nonapi/io/github/classgraph/classpath/CallStackReader.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/io/github/classgraph/AnnotationEnumValue.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/nonapi/io/github/classgraph/fastzipfilereader/PhysicalZipFile.java  
 \*  
 /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/nonapi/io/github/classgraph/json/Id.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/io/github/classgraph/MethodInfo.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/io/github/classgraph/TypeParameter.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/nonapi/io/github/classgraph/classpath/ModuleFinder.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/io/github/classgraph/MappableInfoList.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/nonapi/io/github/classgraph/Utils/FileUtils.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/io/github/classgraph/AnnotationParameterValue.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/io/github/classgraph/Classfile.java  
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 /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/nonapi/io/github/classgraph/json/JSONObject.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/nonapi/io/github/classgraph/Utils/LogNode.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/nonapi/io/github/classgraph/Utils/VersionFinder.java  
 \* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-

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jar/io/github/classgraph/ClassGraph.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/io/github/classgraph/GraphvizDotfileGenerator.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/nonapi/io/github/classgraph/json/JSONArray.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/nonapi/io/github/classgraph/Utils/StringUtils.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/io/github/classgraph/ArrayClassInfo.java
*
/opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/nonapi/io/github/classgraph/types/ParseException.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/nonapi/io/github/classgraph/classloaderhandler/UnoOneJarClassLoaderHandler.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/nonapi/io/github/classgraph/json/FieldTypeInfo.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/nonapi/io/github/classgraph/classloaderhandler/JPMSCClassLoaderHandler.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/nonapi/io/github/classgraph/fastzipfilereader/NestedJarHandler.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/nonapi/io/github/classgraph/json/JSONUtils.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/io/github/classgraph/ScanResultObject.java
*
/opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/io/github/classgraph/AnnotationInfoList.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/io/github/classgraph/ModulePathInfo.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/nonapi/io/github/classgraph/Utils/CollectionUtils.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/io/github/classgraph/ScanResult.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/io/github/classgraph/ObjectTypedValueWrapper.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/io/github/classgraph/PackageInfo.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/io/github/classgraph/AnnotationInfo.java
*
/opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/nonapi/io/github/classgraph/recycler/Recycler.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/nonapi/io/github/classgraph/scanspec/AcceptReject.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/nonapi/io/github/classgraph/recycler/RecycleOnClose.java
* /opt/cola/permits/1611898211_1680234953.7192042/0/classgraph-4-8-120-sources-2-
jar/io/github/classgraph/Scanner.java

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\* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/io/github/classgraph/ModuleReaderProxy.java  
\* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/io/github/classgraph/MethodInfoList.java  
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\* Author: Luke Hutchison

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\* Author: Luke Hutchison ([luke.hutch@gmail.com](mailto:luke.hutch@gmail.com))

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jar/io/github/classgraph/ResourceList.java

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\*  
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jar/nonapi/io/github/classgraph/classloaderhandler/SpringBootRestartClassLoaderHandler.java

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\*

\* Author: Harith Elrufaie

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\* Hosted at: <https://github.com/classgraph/classgraph>

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\* Author: Luke Hutchison

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\* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/nonapi/io/github/classgraph/classloaderhandler/JBossClassLoaderHandler.java

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/\*

\* This file is part of ClassGraph.

\*

\* Author: @mcollovati

\*

\* Hosted at: <https://github.com/classgraph/classgraph>

\*

\* --

\*

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\* /opt/cola/permits/1611898211\_1680234953.7192042/0/classgraph-4-8-120-sources-2-jar/nonapi/io/github/classgraph/classloaderhandler/QuarkusClassLoaderHandler.java

## 1.144 jimfs 1.1

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## 1.145 kotlin-reflect 1.8.10-release-430

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Found in path(s):

```
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-  
jar/kotlin/reflect/jvm/internal/impl/descriptors/runtime/structure/ReflectJavaField.kt
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Found in path(s):

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/types/DescriptorSubstitutor.java  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/util/scopeUtils.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/resolve/scopes/receivers/ExtensionReceiver.java  
\*  
/opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/builtins/functions/BuiltInFictitiousFunctionClassFactory.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/load/java/FieldOverridabilityCondition.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/load/java/lazy/descriptors/JavaDescriptorUtil.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/EmptyContainerForLocal.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/ModuleDescriptor.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/PackageViewDescriptor.kt  
\*  
/opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/serialization/deserialization/descriptors/DeserializedAnnotations.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/load/java/lazy/ModuleClassResolver.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/runtime/components/RuntimeErrorReporter.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/storage/ObservableStorageManager.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/load/kotlin/KotlinJvmBinaryPackageSourceElement.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/resolve/scopes/SubstitutingScope.kt

```

*
/opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/resolve/scopes/LazyScopeAdapter.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/RuntimeTypeMapper.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/SupertypeLoopChecker.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/load/java/descriptors/JavaCallableMemberDescriptor.java
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/load/java/descriptors/JavaMethodDescriptor.java
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/annotations/AnnotationDescriptorImpl.java
*
/opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/types/CompositionTypeSubstitution.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/VariableAccessorDescriptor.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/serialization/deserialization/ClassDeserializer.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/FunctionWithAllInvokes.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/types/StarProjectionImpl.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/types/ClassTypeConstructorImpl.java
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/VariableDescriptor.java
*
/opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/annotations/KotlinRetention.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/KProperty1Impl.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/resolve/scopes/receivers/TransientReceiver.java
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/DeclarationDescriptorWithSource.java
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/annotations/AnnotationDescriptor.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/serialization/deserialization/DeserializedClassDataFinder.kt
*
/opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/resolve/overridingUtils.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/load/java/components/SignaturePropagator.java
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/load/java/descriptors/JavaClassDescriptor.java

```



```

jar/kotlin/reflect/jvm/internal/impl/resolve/constants/ConstantValueFactory.kt
*
/opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/serialization/deserialization/LocalClassifierTypeSettings.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/builtins/functions/FunctionInvokeDescriptor.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/DeclarationDescriptorVisitor.java
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/resolve/scopes/receivers/ImplicitReceiver.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/reflectLambda.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/VariableDescriptorWithAccessors.kt
*
/opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/KPackageImpl.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/ConstUtil.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/DescriptorVisibility.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/serialization/deserialization/AnnotationAndConstantLoaderImpl.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/load/java/components/DescriptorResolverUtils.java
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/load/java/descriptors/JavaPropertyDescriptor.java
*
/opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/types/DisjointKeysUnionTypeSubstitution.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/impl/SubpackagesScope.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/impl/ValueParameterDescriptorImpl.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/impl/CompositePackageFragmentProvider.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/PackageFragmentProvider.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/impl/ClassDescriptorBase.java
*
/opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/DeclarationDescriptorWithVisibility.java
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/resolve/constants/constantValues.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/types/checker/TypeCheckerProcedureCallbacksImpl.java
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-

```



```

jar/kotlin/reflect/jvm/internal/impl/load/java/JavaDescriptorVisibilities.java
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/moduleByClassLoader.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/annotations/AnnotationWithTarget.kt
*
/opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/impl/SimpleFunctionDescriptorImpl.java
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/ReflectionObjectRenderer.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/load/java/JavaIncompatibilityRulesOverridabilityCondition.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/Utils/WrapperValues.java
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/PackageFragmentDescriptor.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/CallableMemberDescriptor.java
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/ReceiverParameterDescriptor.java
*
/opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/Utils/Printer.java
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/TypeParameterDescriptor.java
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/ValueParameterDescriptor.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/runtime/structure/ReflectJavaElement.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/serialization/deserialization/Reporter.java
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/impl/PackageFragmentDescriptorImpl.kt
*
/opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/impl/DeclarationDescriptorVisitorEmptyBodies.java
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/ReflectJvmMapping.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/ClassOrPackageFragmentDescriptor.java
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/serialization/deserialization/AnnotationAndConstantLoader.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/resolve/scopes/receivers/ReceiverValue.java
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/serialization/deserialization/descriptors/DeserializedPackageMemberScope.kt
*

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/opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-  
 jar/kotlin/reflect/jvm/internal/impl/storage/StorageManager.kt  
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 jar/kotlin/reflect/jvm/internal/impl/resolve/MemberComparator.java  
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 \* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-  
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 jar/kotlin/reflect/jvm/internal/impl/descriptors/typeParameterUtils.kt  
 \* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-  
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 /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-  
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 \* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-  
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jar/kotlin/reflect/jvm/internal/impl/load/kotlin/DeserializedDescriptorResolver.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
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* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
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* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
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* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
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* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
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* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
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* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
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* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
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* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
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* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
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* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
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*
/opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
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* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
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* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
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*

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* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/resolve/scopes/AbstractScopeAdapter.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/SimpleFunctionDescriptor.java
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/load/java/lazy/descriptors/LazyJavaStaticScope.kt
*
/opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/utills/exceptionUtils.kt
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* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
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* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
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* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
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* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
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* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
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* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
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* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
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*
/opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
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* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
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* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
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*
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* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
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* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
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*

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\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/types/checker/NewCapturedType.kt

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/resolve/OverridingUtil.java

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/types/checker/NewKotlinTypeChecker.kt

\*

/opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/runtime/structure/ReflectJavaMember.kt

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/runtime/structure/ReflectJavaMethod.kt

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/types/SpecialTypes.kt

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/InvalidModuleException.kt

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/runtime/components/ReflectKotlinClass.kt

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/runtime/structure/ReflectJavaClass.kt

\*

/opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/container/DefaultImplementation.kt

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/load/java/typeEnhancement/signatureEnhancement.kt

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/runtime/structure/ReflectJavaAnnotation.kt

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/types/TypeUtils.kt

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/runtime/structure/ReflectJavaConstructor.kt

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/types/TypeWithEnhancement.kt

\*

/opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/impl/DescriptorDerivedFromTypeAlias.kt

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/load/java/utils.kt

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/impl/PropertyDescriptorImpl.java

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/runtime/components/ReflectKotlinClassFinder.kt

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/load/java/descriptors/JavaClassConstructorDescriptor.java

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/runtime/structure/reflectClassUtil.kt

\*

/opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/load/java/lazy/descriptors/LazyJavaPackageScope.kt

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/serialization/deserialization/ContractDeserializer.kt

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/runtime/structure/ReflectJavaWildcardType.kt

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/runtime/structure/ReflectJavaPrimitiveType.kt

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/Substitutable.kt

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/load/java/lazy/descriptors/LazyJavaStaticClassScope.kt

\*

/opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/deserialization/PlatformDependentDeclarationFilter.kt

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/impl/TypeAliasConstructorDescriptor.kt

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/DescriptorVisibilities.java

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/runtime/structure/ReflectJavaClassifierType.kt

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/runtime/structure/ReflectJavaAnnotationArguments.kt

\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/runtime/structure/ReflectJavaValueParameter.kt

\*

/opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/types/checker/IntersectionType.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/util/modifierChecks.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/load/java/lazy/descriptors/LazyJavaScope.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/ModalityUtils.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/runtime/structure/ReflectJavaTypeParameter.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/builtins/BuiltInsLoader.kt  
\*  
/opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/load/java/AnnotationTypeQualifierResolver.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/builtins/BuiltInsPackageFragment.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/deserialization/AdditionalClassPartsProvider.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/annotations/BuiltInAnnotationDescriptor.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/deserialization/ClassDescriptorFactory.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/runtime/structure/ReflectJavaPackage.kt  
\*  
/opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/types/KotlinTypeFactory.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/findClassInModule.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/types/KotlinType.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/serialization/deserialization/DeserializedPackageFragmentImpl.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/load/java/lazy/descriptors/LazyJavaClassMemberScope.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/runtime/components/RuntimeModuleData.kt  
\*  
/opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/runtime/structure/ReflectJavaType.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/full/KProperties.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/runtime/structure/ReflectJavaAnnotationOwner.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-jar/kotlin/reflect/jvm/internal/impl/descriptors/runtime/components/RuntimeSourceElementFactory.kt  
\* /opt/cola/permits/1620677371\_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-

```
jar/kotlin/reflect/jvm/internal/impl/utils/numbers.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/ConstructorDescriptor.java
*
/opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/load/java/JavaClassesTracker.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/runtime/structure/ReflectJavaArrayType.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/runtime/components/ReflectJavaClassFinder.kt
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/descriptors/impl/ClassConstructorDescriptorImpl.java
* /opt/cola/permits/1620677371_1680210407.2450173/0/kotlin-reflect-1-8-10-sources-
jar/kotlin/reflect/jvm/internal/impl/resolve/scopes/SyntheticScopes.kt
```

# 1.146 kotlinpoet 1.7.2

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# 1.147 bridgeutils 1.7.1-r2

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## The Unicode Standard, Unicode Character Database, Version 10.0.0

### Unicode Character Database

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## CUP Parser Generator for Java v 0.11b

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	GL/ glxext.h	Khronos
	GL/ wglxext.h	Khronos
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include/GL/gl.h :

Mesa 3-D  
graphics library

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```
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include/GL/glxext.h
include/GL/wglxext.h :
```

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```
include/KHR/khrplatform.h :
```

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</pre>  
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```

```
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jar/javax/annotation/concurrent/ThreadSafe.java
* /opt/cola/permits/1656638364_1682593601.2844107/0/jsr305-3-0-2-sources-9-
jar/javax/annotation/concurrent/NotThreadSafe.java
* /opt/cola/permits/1656638364_1682593601.2844107/0/jsr305-3-0-2-sources-9-
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## 1.161 ca-certificates 20230506-r0

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Found in path(s):

```
* /opt/cola/permits/1667253608_1683577718.267003/0/ca-certificates-20230506-tar-bz2/ca-certificates-  
20230506/mk-ca-bundle.pl
```

No license file was found, but licenses were detected in source scan.

```
/* c_rehash.c - Create hash symlinks for certificates
```

```
* C implementation based on the original Perl and shell versions
```

```
*
```

```
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Found in path(s):

# 1.162 apk-tools 2.14.0-r2

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## 1.163 alpine-baselayout 3.4.3-r1

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* Create mount directories in fstab  
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*  
* usage: mkmntdirs [fstab]  
*  
*/
```

Found in path(s):

```
* /opt/cola/permits/1675356458_1684887865.7744117/0/alpine-baselayout-master-zip/alpine-baselayout-master/src/mkmntdirs.c
```

## 1.164 ca-certificates-bundle 20230506-r0

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Found in path(s):

```
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```

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```
/* c_rehash.c - Create hash symlinks for certificates  
* C implementation based on the original Perl and shell versions  
*  
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```

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\*/

Found in path(s):

\*/opt/cola/permits/1679450782\_1685340861.071418/0/ca-certificates-20230506-tar-bz2/ca-certificates-20230506/c\_rehash.c

# 1.165 libc-utils 0.7.2-r5

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 *
 * @(#)queue.h 8.5 (Berkeley) 8/20/94
 */
```

Found in path(s):

```
* /opt/cola/permits/1686513755_1685082238.691036/0/aports-master-main-libc-dev-  
zip/aports-master-main-libc-dev/main/libc-dev/sys-queue.h
```

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```
*/
```

Found in path(s):

```
* /opt/cola/permits/1686513755_1685082238.691036/0/aports-master-main-libc-dev-  
zip/aports-master-main-libc-dev/main/libc-dev/sys-tree.h
```

# 1.166 jackson-annotations 2.15.1

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* usage: mkmntdirs [fstab]  
*  
*/
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```
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jseward@bzip.org

bzip2/libbzip2 version 1.0.4 of 20 December 2006

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```

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## 1.179 snake-yaml 2.6

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Version 2.0, January 2004

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```
{"version":3,"file":"kotlin.js","sources":["wrapper.js","js/arrayUtils.js","js/callableReferenceUtils.js","js/conversions.js","js/core.js","js/long.js","js/markerFunctions.js","js/misc.js","js/polyfills.js","js/rtti.js","runtime/arrayUtils.kt","runtime/Enum.kt","primitiveCompanionObjects.kt","common/src/generated/_Arrays.kt","common/src/generated/_Ran
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ges.kt", "unsigned/src/kotlin/UByte.kt", "unsigned/src/kotlin/UInt.kt", "unsigned/src/kotlin/UShort.kt", "src/kotlin/collections/Collections.kt", "src/kotlin/collections/Maps.kt", "src/kotlin/collections/Sets.kt", "src/kotlin/ranges/PrimitiveRanges.kt", "src/kotlin/text/StringNumberConversions.kt", "src/kotlin/time/Duration.kt", "unsigned/src/kotlin/UnsignedUtils.kt", "../core/builtins/src/kotlin/internal/InternalAnnotations.kt", "src/kotlin/collections/Iterables.kt", "src/kotlin/collections/Sequences.kt", "src/kotlin/util/Preconditions.kt", "js/src/generated/\_ArraysJs.kt", "src/kotlin/comparisons/Comparisons.kt", "src/kotlin/util/Standard.kt", "js/src/generated/\_ComparisonsJs.kt", "unsigned/src/kotlin/ULong.kt", "common/src/generated/\_Collections.kt", "js/src/kotlin/collections.kt", "src/kotlin/collections/Iterators.kt", "common/src/generated/\_Comparisons.kt", "common/src/generated/\_Maps.kt", "common/src/generated/\_OneToManyTitlecaseMappings.kt", "js/src/kotlin/text/char.kt", "js/src/kotlin/text/string.kt", "src/kotlin/text/Char.kt", "src/kotlin/CharCode.kt", "common/src/generated/\_Sequences.kt", "common/src/generated/\_Sets.kt", "common/src/generated/\_Strings.kt", "src/kotlin/text/Strings.kt", "unsigned/src/kotlin/UByteArray.kt", "unsigned/src/kotlin/UIntArray.kt", "unsigned/src/kotlin/ULongArray.kt", "unsigned/src/kotlin/UShortArray.kt", "common/src/generated/\_UArrays.kt", "common/src/generated/\_UCollections.kt", "common/src/generated/\_UComparisons.kt", "common/src/generated/\_URanges.kt", "common/src/generated/\_USequences.kt", "common/src/kotlin/ExceptionsH.kt", "common/src/kotlin/JsAnnotationsH.kt", "common/src/kotlin/ioH.kt", "builtin-sources/Collections.kt", "builtin-sources/Unit.kt", "builtin-sources/annotation/Annotations.kt", "src/kotlin/builtins.kt", "src/kotlin/jsTypeOf.kt", "src/kotlin/kotlin.kt", "src/kotlin/charCode\_js-v1.kt", "src/kotlin/coroutines/CoroutineImpl.kt", "src/kotlin/util/Result.kt", "src/kotlin/coroutines/Continuation.kt", "src/kotlin/coroutines/intrinsics/IntrinsicsJs.kt", "src/kotlin/currentBeMisc.kt", "src/kotlin/exceptions.kt", "src/kotlin/jsOperators.kt", "src/kotlin/math\_js-v1.kt", "src/kotlin/numbers\_js-v1.kt", "src/kotlin/reflection\_js-v1.kt", "src/kotlin/text/numberConversions\_js-v1.kt", "js/src/kotlin/js.arrays/fill.kt", "js/src/kotlin/js.arrays/sort.kt", "js/src/generated/\_CharCategories.kt", "js/src/generated/\_CollectionsJs.kt", "js/src/generated/\_DigitChars.kt", "js/src/generated/\_LetterChars.kt", "js/src/generated/\_OtherLowercaseChars.kt", "js/src/generated/\_OtherUppercaseChars.kt", "js/src/generated/\_StringsJs.kt", "js/src/generated/\_TitlecaseMappings.kt", "js/src/generated/\_UArraysJs.kt", "js/src/generated/\_WhitespaceChars.kt", "js/src/kotlin/Comparator.kt", "js/src/kotlin/annotations.kt", "js/src/kotlin/annotationsJVM.kt", "js/src/kotlin/collections/AbstractMutableCollection.kt", "js/src/kotlin/collections/AbstractMutableList.kt", "js/src/kotlin/collections/AbstractMutableMap.kt", "js/src/kotlin/collections/AbstractMutableSet.kt", "js/src/kotlin/collections/ArrayList.kt", "js/src/kotlin/collections/ArraySorting.kt", "js/src/kotlin/collections/ArraysJs.kt", "js/src/kotlin/collections/EqualityComparator.kt", "js/src/kotlin/collections/HashMap.kt", "js/src/kotlin/collections/HashSet.kt", "js/src/kotlin/collections/InternalHashCodeMap.kt", "js/src/kotlin/collections/InternalMap.kt", "js/src/kotlin/collections/InternalStringMap.kt", "js/src/kotlin/collections/LinkedHashMap.kt", "js/src/kotlin/collections/LinkedHashSet.kt", "js/src/kotlin/concurrent.kt", "js/src/kotlin/console.kt", "js/src/kotlin/coroutines/SafeContinuationJs.kt", "js/src/kotlin/coroutines/cancellation/CancellationException.kt", "js/src/kotlin/coroutines/js/internal/EmptyContinuation.kt", "js/src/kotlin/date.kt", "js/src/kotlin/dom/Builders.kt", "js/src/kotlin/dom/Classes.kt", "js/src/kotlin/dom/Dom.kt", "js/src/kotlin/dom/EventListener.kt", "js/src/kotlin/dom/ItemArrayLike.kt", "js/src/kotlin/dom/Mutations.kt", "js/src/kotlin/dynamic.kt", "js/src/kotlin/enums/EnumEntriesSerializationProxy.kt", "js/src/kotlin/exceptionUtils.kt", "js/src/kotlin/grouping.kt", "src/kotlin/collections/Grouping.kt", "js/src/kotlin/internalAnnotations.kt", "js/src/kotlin/json.kt", "js/src/kotlin/math.kt", "js/src/kotlin/numbers.kt", "js/src/kotlin/promise.kt", "js/src/kotlin/random/PlatformRandom.kt", "js/src/kotlin/reflect/AssociatedObjects.kt", "js/src/kotlin/reflect/JsClass.kt", "js/src/kotlin/reflect/KClassImpl.kt", "js/src/kotlin/reflect/KClassesImpl.kt", "js/src/kotlin/reflect/KTypeHelpers.kt", "js/src/kotlin/reflect/KTypeImpl.kt", "js/src/kotlin/reflect/KTypeParameterImpl.kt", "js/src/kotlin/reflect/primitives.kt", "js/src/kotlin/reflect/reflection.kt", "js/src/kotlin/regexp.kt", "js/src/kotlin/sequence.kt", "js/src/kotlin/text/CharCategoryJS.kt", "js/src/kotlin/text/CharacterCodingExceptionJs.kt", "js/src/kotlin/text/StringBuilderJs.kt", "js/src/kotlin/text/numberConversions.kt", "js/src/kotlin/text/regex.kt", "src/kotlin/text/StringBuilder.kt", "js/src/kotlin/text/stringCode.kt", "js/src/kotlin/text/utf8Encoding.kt", "js/src/kotlin/throwableExtensions.kt", "js/src/kotlin/time/DurationJs.kt", "js/src/kotlin/time/DurationUnit.kt", "js/src/kotlin/time/MonoTimeSource.kt", "js/src/kotlinx/dom/Builders.kt", "js/src/kotlinx/dom/Classes.kt", "src/kotlin/text/regex/RegexExtensions.kt", "js/src/kotlinx/dom/Dom.kt", "js/src/kotlinx/dom/Mutations.kt", "js/src/org.w3c/deprecated.kt", "js/src/org.w3c/org.khronos.webgl.kt", "js/src/org.w3c/org.w3c.dom



```

return "[" + Array.prototype.map.call(a, function(e) { return toString(e); }).join(", ") +
"]";\n};\n\nKotlin.arrayDeepToString = function (arr) {\n  return
Kotlin.kotlin.collections.contentDeepToStringImpl(arr);\n};\n\nKotlin.arrayEquals = function (a, b) {\n  if (a ===
b) {\n    return true;\n  }\n  if (a === null || b === null || !Kotlin.isArrayish(b) || a.length !== b.length) {\n
return false;\n  }\n  for (var i = 0, n = a.length; i < n; i++) {\n    if (!Kotlin.equals(a[i], b[i])) {\n      return
false;\n    }\n  }\n  return true;\n};\n\nKotlin.arrayDeepEquals = function (a, b) {\n  return
Kotlin.kotlin.collections.contentDeepEqualsImpl(a, b);\n};\n\nKotlin.arrayHashCode = function (arr) {\n  if (arr
=== null) return 0\n  var result = 1;\n  for (var i = 0, n = arr.length; i < n; i++) {\n    result = ((31 * result | 0) +
Kotlin.hashCode(arr[i])) | 0;\n  }\n  return result;\n};\n\nKotlin.arrayDeepHashCode
= function (arr) {\n  return
Kotlin.kotlin.collections.contentDeepHashCodeImpl(arr);\n};\n\nKotlin.primitiveArraySort = function (array) {\n
array.sort(Kotlin.doubleCompareTo);\n};\n\n"/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming
Language contributors. \n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\nKotlin.getCallableRef = function(name, f) {\n  f.callableName = name;\n  return
f;\n};\n\nKotlin.getPropertyCallableRef = function(name, paramCount, getter, setter) {\n  getter.get = getter;\n
getter.set = setter;\n  getter.callableName = name;\n  return getPropertyRefClass(getter, setter,
propertyRefClassMetadataCache[paramCount]);\n};\n\nfunction getPropertyRefClass(obj, setter, cache) {\n
obj.$metadata$ = getPropertyRefMetadata(typeof setter === "function" ? cache.mutable : cache.immutable);\n
obj.constructor = obj;\n  return obj;\n};\n\nvar propertyRefClassMetadataCache
= [\n  {\n    mutable: { value: null, implementedInterface: function () {\n      return
Kotlin.kotlin.reflect.KMutableProperty0 }\n    },\n    immutable: { value: null, implementedInterface: function
() {\n      return Kotlin.kotlin.reflect.KProperty0 }\n    } },\n  {\n    mutable: { value: null,
implementedInterface: function () {\n      return Kotlin.kotlin.reflect.KMutableProperty1 }\n    },\n
immutable: { value: null, implementedInterface: function () {\n      return Kotlin.kotlin.reflect.KProperty1 }\n
} }\n];\n\nfunction getPropertyRefMetadata(cache) {\n  if (cache.value === null) {\n    cache.value = {\n
interfaces: [cache.implementedInterface()],\n    baseClass: null,\n    functions: {},\n    properties:
{},\n    types: {},\n    staticMembers: {} }\n  };\n  return cache.value;\n};\n\n"/*\n * Copyright
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license that can be found in the license/LICENSE.txt file.\n */\n\nKotlin.toShort = function (a) {\n  return (a &
0xFFFF) << 16 >> 16;\n};\n\nKotlin.toByte = function (a) {\n  return (a & 0xFF) << 24 >>
24;\n};\n\nKotlin.toChar = function (a) {\n  return a & 0xFFFF;\n};\n\nKotlin.numberToLong = function (a) {\n
return a instanceof Kotlin.Long ? a : Kotlin.Long.fromNumber(a);\n};\n\nKotlin.numberToInt = function (a) {\n
return a instanceof Kotlin.Long ? a.toInt() : Kotlin.doubleToInt(a);\n};\n\nKotlin.numberToShort = function (a) {\n
return Kotlin.toShort(Kotlin.numberToInt(a));\n};\n\nKotlin.numberToByte = function (a) {\n  return
Kotlin.toByte(Kotlin.numberToInt(a));\n};\n\nKotlin.numberToDouble = function (a) {\n  return
+a;\n};\n\nKotlin.numberToChar = function (a) {\n  return
Kotlin.toChar(Kotlin.numberToInt(a));\n};\n\nKotlin.doubleToInt = function(a)
{\n  if (a > 2147483647) return 2147483647;\n  if (a < -2147483648) return -2147483648;\n  return a |
0;\n};\n\nKotlin.toBoxedChar = function (a) {\n  if (a == null) return a;\n  if (a instanceof Kotlin.BoxedChar)
return a;\n  return new Kotlin.BoxedChar(a);\n};\n\nKotlin.unboxChar = function(a) {\n  if (a == null) return a;\n
return Kotlin.toChar(a);\n};\n\n"/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors. \n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\nKotlin.equals = function (obj1, obj2) {\n  if (obj1 == null) {\n    return obj2 ==
null;\n  }\n  if (obj2 == null) {\n    return false;\n  }\n  if (obj1 !== obj2) {\n    return obj2 !== obj2;\n
}\n  if (typeof obj1 === "object" && typeof obj1.equals === "function") {\n    return obj1.equals(obj2);\n
}\n  if (typeof obj1 === "number" && typeof obj2 ===

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\ "number" ) { \n      return obj1 === obj2 && (obj1 !== 0 || 1 / obj1 === 1 / obj2) \n    } \n \n    return obj1 ===
obj2; \n }; \n \n Kotlin.hashCode = function (obj) { \n   if (obj == null) { \n     return 0; \n   } \n   var objType = typeof
obj; \n   if ( "object" === objType ) { \n     return "function" === typeof obj.hashCode ? obj.hashCode() :
getObjectHashCode(obj); \n   } \n   if ( "function" === objType ) { \n     return getObjectHashCode(obj); \n   } \n
if ( "number" === objType ) { \n     return Kotlin.numberHashCode(obj); \n   } \n   if ( "boolean" === objType )
{ \n     return Number(obj) \n   } \n \n   var str = String(obj); \n   return
getStringHashCode(str); \n }; \n \n \n Kotlin.toString = function (o) { \n   if (o == null) { \n     return "null"; \n   } \n
else if (Kotlin.isArrayish(o)) { \n     return "[...]"; \n   } \n   else { \n     return o.toString(); \n   } \n }; \n \n /**
@const * \n var POW_2_32 = 4294967296; \n // TODO: consider switching to Symbol type
once we are on ES6. \n /** @const * \n var OBJECT_HASH_CODE_PROPERTY_NAME =
"KotlinHashCodeValue"; \n \n function getObjectHashCode(obj) { \n   if
(! (OBJECT_HASH_CODE_PROPERTY_NAME in obj)) { \n     var hash = (Math.random() * POW_2_32) | 0; \n //
Make 32-bit signed integer. \n     Object.defineProperty(obj, OBJECT_HASH_CODE_PROPERTY_NAME, {
value: hash, enumerable: false }); \n   } \n   return
obj[OBJECT_HASH_CODE_PROPERTY_NAME]; \n } \n \n function getStringHashCode(str) { \n   var hash = 0; \n
for (var i = 0; i < str.length; i++) { \n     var code = str.charCodeAt(i); \n     hash = (hash * 31 + code) | 0; \n // Keep
it 32-bit. \n   } \n   return hash; \n } \n \n Kotlin.identityHashCode = getObjectHashCode; \n }, /* \n * Copyright 2010-
2018 JetBrains s.r.o. and Kotlin Programming Language contributors. \n * Use of this source code is governed by
the Apache 2.0 license that can be found in the license/LICENSE.txt file. \n * \n \n // Copyright 2009 The Closure
Library Authors. All Rights Reserved. \n \n \n //
Licensed under the Apache License, Version 2.0 (the "License"); \n // you may not use this file except in
compliance with the License. \n // You may obtain a copy of the License at \n \n \n //
http://www.apache.org/licenses/LICENSE-2.0 \n \n \n // Unless required by applicable law or agreed to in writing,
software \n // distributed under the License is distributed on an "AS-IS" BASIS, \n // WITHOUT WARRANTIES OR
CONDITIONS OF ANY KIND, either express or implied. \n \n /** \n * Constructs a 64-bit two's-complement integer,
given its low and high 32-bit \n * values as *signed* integers. See the from* functions below for more \n *
convenient ways of constructing Longs. \n * \n * The internal representation of a long is the two given signed, 32-bit
values. \n * We use 32-bit pieces because these are the size of integers on which \n * Javascript performs bit-
operations. For operations like addition and \n * multiplication, we split each number into 16-bit pieces, which can
easily be \n * multiplied
within Javascript's floating-point representation without overflow \n * or change in sign. \n * \n * In the algorithms
below, we frequently reduce the negative case to the \n * positive case by negating the input(s) and then post-
processing the result. \n * Note that we must ALWAYS check specially whether those values are MIN_VALUE \n *
(-2^63) because -MIN_VALUE == MIN_VALUE (since 2^63 cannot be represented as \n * a positive number, it
overflows back into a negative). Not handling this \n * case would often result in infinite recursion. \n * \n * @param
{number} low The low (signed) 32 bits of the long. \n * @param {number} high The high (signed) 32 bits of the
long. \n * @constructor \n * @final \n * \n Kotlin.Long = function (low, high) { \n   /** \n   * @type {number} \n   *
@private \n   * \n   this.low_ = low | 0; \n // force into 32 signed bits. \n \n   /** \n   * @type {number} \n   *
@private \n   * \n   this.high_ = high | 0; \n // force into 32 signed bits. \n }; \n \n Kotlin.Long.$metadata$ = { \n   kind:
"class", \n   simpleName: "Long", \n   interfaces: [] \n }; \n \n \n // NOTE: Common constant values ZERO, ONE,
NEG_ONE, etc. are defined below the \n // from* methods on which they depend. \n \n \n /** \n * A cache of the Long
representations of small integer values. \n * @type {!Object} \n * @private \n * \n Kotlin.Long.IntCache_ =
{ }; \n \n \n /** \n * Returns a Long representing the given (32-bit) integer value. \n * @param {number} value The 32-
bit integer in question. \n * @return {!Kotlin.Long} The corresponding Long value. \n * \n Kotlin.Long.fromInt =
function (value) { \n   if (-128 <= value && value < 128) { \n     var cachedObj = Kotlin.Long.IntCache_[value]; \n
if (cachedObj) { \n     return cachedObj; \n   } \n } \n \n   var obj = new Kotlin.Long(value | 0, value < 0 ? -1 : 0); \n
if (-128 <= value && value < 128) { \n     Kotlin.Long.IntCache_[value] = obj; \n   } \n   return obj; \n }; \n \n \n /** \n *
Converts this number value to `Long`. \n * The fractional part, if any, is rounded down towards zero. \n * Returns

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zero if this `Double` value is `NaN`, `Long.MIN_VALUE` if it's less than `Long.MIN_VALUE`,\n *
`Long.MAX_VALUE` if it's bigger than `Long.MAX_VALUE`.\n * @param {number} value The number in
question.\n * @return {!Kotlin.Long} The corresponding Long value.\n */\nKotlin.Long.fromNumber =
function(value) {\n if (isNaN(value)) {\n return Kotlin.Long.ZERO;\n } else if (value <= -
Kotlin.Long.TWO_PWR_63_DBL_) {\n return Kotlin.Long.MIN_VALUE;\n } else if (value + 1 >=
Kotlin.Long.TWO_PWR_63_DBL_) {\n return Kotlin.Long.MAX_VALUE;\n } else if (value < 0) {\n return
Kotlin.Long.fromNumber(-value).negate();\n } else {\n return new Kotlin.Long(\n (value %
Kotlin.Long.TWO_PWR_32_DBL_) | 0,\n (value / Kotlin.Long.TWO_PWR_32_DBL_) | 0);\n
}\n};\n\n/**\n * Returns a Long representing the 64-bit integer that comes by concatenating\n * the given high and
low bits. Each is assumed to use 32 bits.\n * @param {number} lowBits The low 32-bits.\n * @param {number}
highBits The high 32-bits.\n * @return {!Kotlin.Long} The corresponding Long value.\n */\nKotlin.Long.fromBits
= function(lowBits, highBits) {\n return new Kotlin.Long(lowBits, highBits);\n};\n\n/**\n * Returns a Long
representation of the given string, written using the given\n * radix.\n * @param {string} str The textual
representation of the Long.\n * @param {number=} opt_radix The radix in which the text is written.\n * @return
{!Kotlin.Long} The corresponding Long value.\n */\nKotlin.Long.fromString = function(str, opt_radix) {\n if
(str.length == 0) {\n throw Error('number format error: empty string');\n }\n\n var radix = opt_radix || 10;\n if
(radix < 2 || 36 < radix) {\n throw Error('radix out of range: ' + radix);\n }\n\n if (str.charAt(0) == '-') {\n return
Kotlin.Long.fromString(str.substring(1), radix).negate();\n } else if (str.indexOf('-') >= 0) {\n throw Error('number
format error: interior "-" character: ' + str);\n }\n\n // Do several (8) digits
each time through the loop, so as to\n // minimize the calls to the very expensive emulated div.\n var
radixToPower = Kotlin.Long.fromNumber(Math.pow(radix, 8));\n var result = Kotlin.Long.ZERO;\n for (var i =
0; i < str.length; i += 8) {\n var size = Math.min(8, str.length - i);\n var value = parseInt(str.substring(i, i + size),
radix);\n if (size < 8) {\n var power = Kotlin.Long.fromNumber(Math.pow(radix, size));\n result =
result.multiply(power).add(Kotlin.Long.fromNumber(value));\n } else {\n result =
result.multiply(radixToPower);\n result = result.add(Kotlin.Long.fromNumber(value));\n }\n }\n return
result;\n};\n\n// NOTE: the compiler should inline these constant values below and then remove\n// these
variables, so there should be no runtime penalty for these.\n\n/**\n * Number used repeated below in calculations.
This must appear before the\n * first call to any from* function below.\n * @type {number}\n * @private\n
*/\nKotlin.Long.TWO_PWR_16_DBL_
= 1 << 16;\n\n/**\n * @type {number}\n * @private\n */\nKotlin.Long.TWO_PWR_24_DBL_ = 1 <<
24;\n\n/**\n * @type {number}\n * @private\n */\nKotlin.Long.TWO_PWR_32_DBL_ =\n
Kotlin.Long.TWO_PWR_16_DBL_ * Kotlin.Long.TWO_PWR_16_DBL_;\n\n/**\n * @type {number}\n *
@private\n */\nKotlin.Long.TWO_PWR_31_DBL_ =\n Kotlin.Long.TWO_PWR_32_DBL_ / 2;\n\n/**\n *
@type {number}\n * @private\n */\nKotlin.Long.TWO_PWR_48_DBL_ =\n Kotlin.Long.TWO_PWR_32_DBL_
* Kotlin.Long.TWO_PWR_16_DBL_;\n\n/**\n * @type {number}\n * @private\n
*/\nKotlin.Long.TWO_PWR_64_DBL_ =\n Kotlin.Long.TWO_PWR_32_DBL_ *
Kotlin.Long.TWO_PWR_32_DBL_;\n\n/**\n * @type {number}\n * @private\n
*/\nKotlin.Long.TWO_PWR_63_DBL_ =\n Kotlin.Long.TWO_PWR_64_DBL_ / 2;\n\n/**\n * @type
{!Kotlin.Long}\n */\nKotlin.Long.ZERO = Kotlin.Long.fromInt(0);\n\n/**\n * @type {!Kotlin.Long}\n
*/\nKotlin.Long.ONE = Kotlin.Long.fromInt(1);\n\n/**\n * @type {!Kotlin.Long}\n */\nKotlin.Long.NEG_ONE =
Kotlin.Long.fromInt(-1);\n\n/**\n * @type {!Kotlin.Long}\n */\nKotlin.Long.MAX_VALUE =\n
Kotlin.Long.fromBits(0xFFFFFFFF | 0, 0x7FFFFFFF
| 0);\n\n/**\n * @type {!Kotlin.Long}\n */\nKotlin.Long.MIN_VALUE = Kotlin.Long.fromBits(0, 0x80000000 |
0);\n\n/**\n * @type {!Kotlin.Long}\n * @private\n */\nKotlin.Long.TWO_PWR_24_ = Kotlin.Long.fromInt(1
<< 24);\n\n/**\n * @return {number} The value, assuming it is a 32-bit integer.\n */\nKotlin.Long.prototype.toInt =
function() {\n return this.low_;\n};\n\n/**\n * @return {number} The closest floating-point representation to this
value.\n */\nKotlin.Long.prototype.toNumber = function() {\n return this.high_ *
Kotlin.Long.TWO_PWR_32_DBL_ +\n this.getLowBitsUnsigned();\n};\n\n/**\n * @return {number} The 32-bit

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hashCode of this value. */\nKotlin.Long.prototype.hashCode = function() {\n  return this.high_ ^
this.low_;\n};\n\n/**\n * @param {number=} opt_radix The radix in which the text should be written.\n * @return
{string} The textual representation of this value.\n *
@override\n */\nKotlin.Long.prototype.toString = function(opt_radix) {\n  var radix = opt_radix || 10;\n  if (radix <
2 || 36 < radix) {\n    throw Error('radix out of range: ' + radix);\n  }\n  if (this.isZero()) {\n    return '0';\n  }\n  if
(this.isNegative()) {\n    if (this.equalsLong(Kotlin.Long.MIN_VALUE)) {\n      // We need to change the Long
value before it can be negated, so we remove\n      // the bottom-most digit in this base and then recurse to do the
rest.\n      var radixLong = Kotlin.Long.fromNumber(radix);\n      var div = this.div(radixLong);\n      var rem =
div.multiply(radixLong).subtract(this);\n      return div.toString(radix) + rem.toInt().toString(radix);\n    } else {\n
return '-' + this.negate().toString(radix);\n    }\n  }\n  // Do several (5) digits each time through the loop, so as to\n
// minimize the calls to the very expensive emulated div.\n  var radixToPower =
Kotlin.Long.fromNumber(Math.pow(radix, 5));\n  var rem = this;\n  var result
= '';\n  while (true) {\n    var remDiv = rem.div(radixToPower);\n    var intVal =
rem.subtract(remDiv.multiply(radixToPower)).toInt();\n    var digits = intVal.toString(radix);\n    rem = remDiv;\n
if (rem.isZero()) {\n    return digits + result;\n  } else {\n    while (digits.length < 5) {\n      digits = '0' +
digits;\n    }\n    result = '' + digits + result;\n  }\n  }\n\n/**\n * @return {number} The high 32-bits as a signed
value. */\nKotlin.Long.prototype.getHighBits = function() {\n  return this.high_;\n};\n\n/**\n * @return {number}
The low 32-bits as a signed value. */\nKotlin.Long.prototype.getLowBits = function() {\n  return
this.low_;\n};\n\n/**\n * @return {number} The low 32-bits as an unsigned value.
*/\nKotlin.Long.prototype.getLowBitsUnsigned = function() {\n  return (this.low_ >= 0) ?\n    this.low_ :
Kotlin.Long.TWO_PWR_32_DBL_ + this.low_;\n};\n\n/**\n * @return {number} Returns the number of bits
needed to represent the absolute\n * value
of this Long.\n */\nKotlin.Long.prototype.getNumBitsAbs = function() {\n  if (this.isNegative()) {\n    if
(this.equalsLong(Kotlin.Long.MIN_VALUE)) {\n      return 64;\n    } else {\n      return
this.negate().getNumBitsAbs();\n    }\n  } else {\n    var val = this.high_ != 0 ? this.high_ : this.low_;\n    for (var bit
= 31; bit > 0; bit--) {\n      if ((val & (1 << bit)) != 0) {\n        break;\n      }\n    }\n    return this.high_ != 0 ? bit + 33
: bit + 1;\n  }\n};\n\n/**\n * @return {boolean} Whether this value is zero. */\nKotlin.Long.prototype.isZero =
function() {\n  return this.high_ == 0 && this.low_ == 0;\n};\n\n/**\n * @return {boolean} Whether this value is
negative. */\nKotlin.Long.prototype.isNegative = function() {\n  return this.high_ < 0;\n};\n\n/**\n * @return
{boolean} Whether this value is odd. */\nKotlin.Long.prototype.isOdd = function() {\n  return (this.low_ & 1) ==
1;\n};\n\n/**\n * @param {Kotlin.Long} other Long to compare against.\n * @return {boolean} Whether
this Long equals the other.\n */\nKotlin.Long.prototype.equalsLong = function(other) {\n  return (this.high_ ==
other.high_) && (this.low_ == other.low_);\n};\n\n/**\n * @param {Kotlin.Long} other Long to compare
against.\n * @return {boolean} Whether this Long does not equal the other.\n
*/\nKotlin.Long.prototype.notEqualsLong = function(other) {\n  return (this.high_ != other.high_) || (this.low_ !=
other.low_);\n};\n\n/**\n * @param {Kotlin.Long} other Long to compare against.\n * @return {boolean}
Whether this Long is less than the other.\n */\nKotlin.Long.prototype.lessThan = function(other) {\n  return
this.compare(other) < 0;\n};\n\n/**\n * @param {Kotlin.Long} other Long to compare against.\n * @return
{boolean} Whether this Long is less than or equal to the other.\n */\nKotlin.Long.prototype.lessThanOrEqual =
function(other) {\n  return this.compare(other) <= 0;\n};\n\n/**\n * @param {Kotlin.Long} other Long to
compare against.\n * @return {boolean} Whether this Long is
greater than the other.\n */\nKotlin.Long.prototype.greaterThan = function(other) {\n  return this.compare(other) >
0;\n};\n\n/**\n * @param {Kotlin.Long} other Long to compare against.\n * @return {boolean} Whether this
Long is greater than or equal to the other.\n */\nKotlin.Long.prototype.greaterThanOrEqual = function(other) {\n
return this.compare(other) >= 0;\n};\n\n/**\n * Compares this Long with the given one.\n * @param
{Kotlin.Long} other Long to compare against.\n * @return {number} 0 if they are the same, 1 if the this is greater,
and -1\n * if the given one is greater.\n */\nKotlin.Long.prototype.compare = function(other) {\n  if
(this.equalsLong(other)) {\n    return 0;\n  }\n  var thisNeg = this.isNegative();\n  var otherNeg =

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    var result = approx.add(rem.div(other));\n    return result;\n    }\n    }\n } else if
(other.equalsLong(Kotlin.Long.MIN_VALUE)) {\n    return Kotlin.Long.ZERO;\n }\n\n if (this.isNegative()) {\n
if (other.isNegative()) {\n    return this.negate().div(other.negate());\n } else {\n    return
this.negate().div(other).negate();\n
    }\n } else if (other.isNegative()) {\n    return this.div(other.negate()).negate();\n }\n\n // Repeat the following
until the remainder is less than other: find a\n // floating-point that approximates remainder / other *from below*,
add this\n // into the result, and subtract it from the remainder. It is critical that\n // the approximate value is less
than or equal to the real value so that the\n // remainder never becomes negative.\n var res = Kotlin.Long.ZERO;\n
var rem = this;\n while (rem.greaterThanOrEqual(other)) {\n    // Approximate the result of division. This may be a
little greater or\n // smaller than the actual value.\n    var approx = Math.max(1, Math.floor(rem.toNumber() /
other.toNumber()));\n\n    // We will tweak the approximate result by changing it in the 48-th digit or\n // the
smallest non-fractional digit, whichever is larger.\n    var log2 = Math.ceil(Math.log(approx) / Math.LN2);\n    var
delta = (log2 <= 48) ? 1
: Math.pow(2, log2 - 48);\n\n    // Decrease the approximation until it is smaller than the remainder. Note\n // that
if it is too large, the product overflows and is negative.\n    var approxRes = Kotlin.Long.fromNumber(approx);\n
var approxRem = approxRes.multiply(other);\n    while (approxRem.isNegative() || approxRem.greaterThan(rem))
{\n    approx -= delta;\n    approxRes = Kotlin.Long.fromNumber(approx);\n    approxRem =
approxRes.multiply(other);\n    }\n\n    // We know the answer can't be zero... and actually, zero would cause\n //
infinite recursion since we would make no progress.\n    if (approxRes.isZero()) {\n    approxRes =
Kotlin.Long.ONE;\n    }\n\n    res = res.add(approxRes);\n    rem = rem.subtract(approxRem);\n }\n return
res;\n};\n\n\n/**\n * Returns this Long modulo the given one.\n * @param {Kotlin.Long} other Long by which to
mod.\n * @return {!Kotlin.Long} This Long modulo the given one.\n */\nKotlin.Long.prototype.modulo =
function(other)
{\n    return this.subtract(this.div(other).multiply(other));\n};\n\n\n/**\n * @return {!Kotlin.Long} The bitwise-NOT of
this value.\n */\nKotlin.Long.prototype.not = function() {\n    return Kotlin.Long.fromBits(~this.low_,
~this.high_);\n};\n\n\n/**\n * Returns the bitwise-AND of this Long and the given one.\n * @param {Kotlin.Long}
other The Long with which to AND.\n * @return {!Kotlin.Long} The bitwise-AND of this and the other.\n
*/\nKotlin.Long.prototype.and = function(other) {\n    return Kotlin.Long.fromBits(this.low_ & other.low_,\n
this.high_ & other.high_);\n};\n\n\n/**\n * Returns the bitwise-OR of this Long and the given one.\n *
@param {Kotlin.Long} other The Long with which to OR.\n * @return {!Kotlin.Long} The bitwise-OR of this and
the other.\n */\nKotlin.Long.prototype.or = function(other) {\n    return Kotlin.Long.fromBits(this.low_ |
other.low_,\nthis.high_ | other.high_);\n};\n\n\n/**\n * Returns the bitwise-XOR of
this Long and the given one.\n * @param {Kotlin.Long} other The Long with which to XOR.\n * @return
{!Kotlin.Long} The bitwise-XOR of this and the other.\n */\nKotlin.Long.prototype.xor = function(other) {\n    return
Kotlin.Long.fromBits(this.low_ ^ other.low_,\nthis.high_ ^ other.high_);\n};\n\n\n/**\n * Returns this Long with bits shifted to the left by the given amount.\n * @param {number} numBits The number of
bits by which to shift.\n * @return {!Kotlin.Long} This shifted to the left by the given amount.\n
*/\nKotlin.Long.prototype.shiftLeft = function(numBits) {\n    numBits &= 63;\n    if (numBits == 0) {\n    return
this;\n    } else {\n    var low = this.low_;\n    if (numBits < 32) {\n    var high = this.high_;\n    return
Kotlin.Long.fromBits(\n        low << numBits,\n        (high << numBits) | (low >>> (32 - numBits));\n    );\n    } else
{\n    return Kotlin.Long.fromBits(0, low << (numBits - 32));\n    }\n    }\n};\n\n\n/**\n * Returns this Long
with bits shifted to the right by the given amount.\n * @param {number} numBits The number of bits by which to
shift.\n * @return {!Kotlin.Long} This shifted to the right by the given amount.\n
*/\nKotlin.Long.prototype.shiftRight = function(numBits) {\n    numBits &= 63;\n    if (numBits == 0) {\n    return
this;\n    } else {\n    var high = this.high_;\n    if (numBits < 32) {\n    var low = this.low_;\n    return
Kotlin.Long.fromBits(\n        (low >>> numBits) | (high << (32 - numBits)),\n        high >> numBits);\n    } else
{\n    return Kotlin.Long.fromBits(\n        high >> (numBits - 32),\n        high >= 0 ? 0 : -1);\n    }\n    }\n};\n\n\n/**\n * Returns this Long with bits shifted to the right by the given amount, with\n * zeros placed into the

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new leading bits.\n * @param {number} numBits The number of bits by which to shift.\n * @return {!Kotlin.Long}
This shifted to the right by the given amount, with\n * zeros placed into the new leading bits.\n
*/\nKotlin.Long.prototype.shiftRightUnsigned
= function(numBits) {\n numBits &= 63;\n if (numBits == 0) {\n return this;\n } else {\n var high =
this.high_;\n if (numBits < 32) {\n var low = this.low_;\n return Kotlin.Long.fromBits(\n (low >>>
numBits) | (high << (32 - numBits)),\n high >>> numBits);\n } else if (numBits == 32) {\n return
Kotlin.Long.fromBits(high, 0);\n } else {\n return Kotlin.Long.fromBits(high >>> (numBits - 32), 0);\n }\n
}\n};\n\n// Support for Kotlin\nKotlin.Long.prototype.equals = function (other) {\n return other instanceof
Kotlin.Long && this.equalsLong(other);\n};\n\nKotlin.Long.prototype.compareTo_11rb$ =
Kotlin.Long.prototype.compare;\n\nKotlin.Long.prototype.inc = function() {\n return
this.add(Kotlin.Long.ONE);\n};\n\nKotlin.Long.prototype.dec = function() {\n return
this.add(Kotlin.Long.NEG_ONE);\n};\n\nKotlin.Long.prototype.valueOf = function() {\n return
this.toNumber();\n};\n\nKotlin.Long.prototype.unaryPlus
= function() {\n return this;\n};\n\nKotlin.Long.prototype.unaryMinus =
Kotlin.Long.prototype.negate;\n\nKotlin.Long.prototype.inv =
Kotlin.Long.prototype.not;\n\nKotlin.Long.prototype.rangeTo = function (other) {\n return new
Kotlin.kotlin.ranges.LongRange(this, other);\n};\n\n/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin
Programming Language contributors. \n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n */\n\nKotlin.Long.prototype.declaration\n\nKotlin.defineModule = function (id, declaration) {\n};\n\nKotlin.defineInlineFunction = function(tag, fun) {\n
return fun;\n};\n\nKotlin.wrapFunction = function(fun) {\n var f = function() {\n f = fun();\n return
f.apply(this, arguments);\n }; \n return function() {\n return f.apply(this, arguments);\n
};\n};\n\nKotlin.isTypeOf = function(type) {\n return function (object) {\n
return typeof object === type;\n };\n};\n\nKotlin.isInstanceOf = function (klass) {\n return function (object)
{\n return Kotlin.isType(object, klass);\n };\n};\n\nKotlin.orNull = function (fn) {\n return function (object)
{\n return object == null || fn(object);\n };\n};\n\nKotlin.andPredicate = function (a, b) {\n return function
(object) {\n return a(object) && b(object);\n };\n};\n\nKotlin.kotlinModuleMetadata = function (abiVersion,
moduleName, data) {\n};\n\nKotlin.suspendCall = function(value) {\n return value;\n};\n\nKotlin.coroutineResult
= function(qualifier) {\n throwMarkerError();\n};\n\nKotlin.coroutineController = function(qualifier) {\n
throwMarkerError();\n};\n\nKotlin.coroutineReceiver = function(qualifier) {\n
throwMarkerError();\n};\n\nKotlin.setCoroutineResult = function(value, qualifier) {\n
throwMarkerError();\n};\n\nKotlin.getReifiedTypeParameterKType = function(typeParameter) {\n
throwMarkerError();\n};\n\nfunction
throwMarkerError() {\n throw new Error(\n "This marker function should never be called. \n" +\n
"Looks like compiler did not eliminate it properly. \n" +\n "Please, report an issue if you caught this
exception.\n");\n}\n\nKotlin.getFunctionById = function(id, defaultValue) {\n return function() {\n return
defaultValue;\n };\n};\n\n/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors. \n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\nKotlin.compareTo = function (a, b) {\n var typeA = typeof a;\n if (typeA ===
"number") {\n if (typeof b === "number") {\n return Kotlin.doubleCompareTo(a, b);\n }\n return
Kotlin.primitiveCompareTo(a, b);\n }\n if (typeA === "string" || typeA === "boolean") {\n return
Kotlin.primitiveCompareTo(a, b);\n }\n return a.compareTo_11rb$(b);\n};\n\nKotlin.primitiveCompareTo
= function (a, b) {\n return a < b ? -1 : a > b ? 1 : 0;\n};\n\nKotlin.doubleCompareTo = function (a, b) {\n if (a <
b) return -1;\n if (a > b) return 1;\n\n if (a === b) {\n if (a !== 0) return 0;\n\n var ia = 1 / a;\n return
ia === 1 / b ? 0 : (ia < 0 ? -1 : 1);\n }\n\n return a !== a ? (b !== b ? 0 : 1) : -1;\n};\n\nKotlin.charInc = function
(value) {\n return Kotlin.toChar(value+1);\n};\n\nKotlin.charDec = function (value) {\n return
Kotlin.toChar(value-1);\n};\n\nKotlin.imul = Math.imul || imul;\n\nKotlin.imulEmulated = imul;\n\nfunction imul(a,
b) {\n return ((a & 0xffff0000) * (b & 0xffff) + (a & 0xffff) * (b | 0)) | 0;\n}\n\n(function() {\n var buf = new

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ArrayBuffer(8);\n  var bufFloat64 = new Float64Array(buf);\n  var bufFloat32 = new Float32Array(buf);\n  var bufInt32 = new Int32Array(buf);\n  var lowIndex = 0;\n  var highIndex = 1;\n  bufFloat64[0] = -1; // bff00000_00000000\n  if (bufInt32[lowIndex] !== 0) {\n    lowIndex = 1;\n    highIndex = 0;\n  }\n  Kotlin.doubleToBits = function(value) {\n    return Kotlin.doubleToRawBits(isNaN(value) ? NaN : value);\n  };\n  Kotlin.doubleToRawBits = function(value) {\n    bufFloat64[0] = value;\n    return\n  Kotlin.Long.fromBits(bufInt32[lowIndex], bufInt32[highIndex]);\n  };\n  Kotlin.doubleFromBits = function(value) {\n    bufInt32[lowIndex] = value.low_;\n    bufInt32[highIndex] = value.high_;\n    return bufFloat64[0];\n  };\n  Kotlin.floatToBits = function(value) {\n    return Kotlin.floatToRawBits(isNaN(value) ? NaN : value);\n  };\n  Kotlin.floatToRawBits = function(value) {\n    bufFloat32[0] = value;\n    return bufInt32[0];\n  };\n  Kotlin.floatFromBits = function(value) {\n    bufInt32[0] = value;\n    return bufFloat32[0];\n  };\n  // returns zero value for number with positive sign bit and non-zero value for number with negative sign bit.\n  Kotlin.doubleSignBit = function(value) {\n    bufFloat64[0] = value;\n    return bufInt32[highIndex] & 0x80000000;\n  };\n  Kotlin.numberHashCode = function(obj) {\n    if ((obj | 0) === obj) {\n      return obj | 0;\n    } else {\n      bufFloat64[0] = obj;\n      return (bufInt32[highIndex] * 31 | 0) + bufInt32[lowIndex] | 0;\n    }\n  };\n  Kotlin.ensureNotNull = function(x) {\n    return x != null ? x : Kotlin.throwNPE();\n  };\n  /*\n  * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n  * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n  */\n  nif (typeof String.prototype.startsWith === "undefined") {\n    Object.defineProperty(String.prototype, "startsWith", {\n      value: function (searchString, position) {\n        position = position || 0;\n        return this.lastIndexOf(searchString, position) === position;\n      }\n    });\n  }\n  nif (typeof String.prototype.endsWith === "undefined") {\n    Object.defineProperty(String.prototype, "endsWith", {\n      value: function (searchString, position) {\n        var subjectString = this.toString();\n        if (position === undefined || position > subjectString.length) {\n          position = subjectString.length;\n        }\n        position -= searchString.length;\n        var lastIndex = subjectString.indexOf(searchString, position);\n        return lastIndex !== -1 && lastIndex === position;\n      }\n    });\n  }\n  // ES6 Math polyfills\n  nif (typeof Math.sign === "undefined") {\n    Math.sign = function(x) {\n      x = +x; // convert to a number\n      if (x === 0 || isNaN(x)) {\n        return Number(x);\n      }\n      return x > 0 ? 1 : -1;\n    };\n  }\n  nif (typeof Math.trunc === "undefined") {\n    Math.trunc = function(x) {\n      if (isNaN(x)) {\n        return NaN;\n      }\n      if (x > 0) {\n        return Math.floor(x);\n      }\n      return Math.ceil(x);\n    };\n  }\n  (function() {\n    var epsilon = 2.220446049250313E-16;\n    var taylor_2_bound = Math.sqrt(epsilon);\n    var taylor_n_bound = Math.sqrt(taylor_2_bound);\n    var upper_taylor_2_bound = 1/taylor_2_bound;\n    var upper_taylor_n_bound = 1/taylor_n_bound;\n\n    if (typeof Math.sinh === "undefined") {\n      Math.sinh = function(x) {\n        if (Math.abs(x) < taylor_n_bound) {\n          var result = x;\n          if (Math.abs(x) > taylor_2_bound) {\n            result += (x * x * x) / 6;\n          }\n          return result;\n        } else {\n          var y = Math.exp(x);\n          var y1 = 1 / y;\n          if (!isFinite(y)) return Math.exp(x - Math.LN2);\n          if (!isFinite(y1)) return -Math.exp(-x - Math.LN2);\n          return (y - y1) / 2;\n        }\n      };\n    }\n\n    if (typeof Math.cosh === "undefined") {\n      Math.cosh = function(x) {\n        var y = Math.exp(x);\n        var y1 = 1 / y;\n        if (!isFinite(y) || !isFinite(y1)) return Math.exp(Math.abs(x) - Math.LN2);\n        return (y + y1) / 2;\n      };\n    }\n\n    if (typeof Math.tanh === "undefined") {\n      Math.tanh = function(x) {\n        if (Math.abs(x) < taylor_n_bound) {\n          var result = x;\n          if (Math.abs(x) > taylor_2_bound) {\n            result -= (x * x * x) / 3;\n          }\n          return result;\n        }\n        else {\n          var a = Math.exp(+x), b = Math.exp(-x);\n          return a === Infinity ? 1 : b === Infinity ? -1 : (a - b) / (a + b);\n        }\n      };\n    }\n\n    // Inverse hyperbolic function implementations derived from boost special math functions,\n    // Copyright Eric Ford & Hubert Holin 2001.\n\n    if (typeof Math.asinh === "undefined") {\n      var asinh = function(x) {\n        if (x >= +taylor_n_bound)\n          if (x > upper_taylor_n_bound)\n            if (x > upper_taylor_2_bound)\n              // approximation by laurent series in 1/x at 0+ order from -1 to 0\n              return Math.log(x) + Math.LN2;\n            }

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while (k < finalValue) {\n      O[k] = value;\n      k++;\n    }\n    // Step 13.\n    return\n    O;\n  }\n}\n\n(function() {\n  function normalizeOffset(offset, length) {\n    if (offset < 0) return\n    Math.max(0, offset + length);\n    return Math.min(offset, length);\n  }\n  function typedArraySlice(begin, end)\n  {\n    if (typeof end === \"undefined\") {\n      end = this.length;\n    }\n    begin = normalizeOffset(begin\n    || 0, this.length);\n    end = Math.max(begin, normalizeOffset(end, this.length));\n    return new\n    this.constructor(this.subarray(begin, end));\n  }\n\n  var arrays = [Int8Array, Int16Array, Uint16Array,\n  Int32Array,\n  Float32Array, Float64Array];\n  for (var i = 0; i < arrays.length; ++i) {\n    var TypedArray = arrays[i];\n    if\n    (typeof TypedArray.prototype.fill === \"undefined\") {\n      Object.defineProperty(TypedArray.prototype, 'fill',\n      {\n        value: Array.prototype.fill\n      });\n    }\n    if (typeof TypedArray.prototype.slice ===\n    \"undefined\") {\n      Object.defineProperty(TypedArray.prototype, 'slice', {\n        value:\n        typedArraySlice\n      });\n    }\n  }\n\n  // Patch apply to work with TypedArrays if needed.\n  try {\n    (function() {}).apply(null, new Int32Array(0))\n  } catch (e) {\n    var apply = Function.prototype.apply;\n    Object.defineProperty(Function.prototype, 'apply', {\n      value: function(self, array) {\n        return\n        apply.call(this, self, [].slice.call(array));\n      }\n    });\n  }\n\n  // Patch map to work with TypedArrays if\n  needed.\n\n  for (var i = 0; i < arrays.length; ++i) {\n    var TypedArray = arrays[i];\n    if (typeof\n    TypedArray.prototype.map === \"undefined\") {\n      Object.defineProperty(TypedArray.prototype, 'map', {\n        value: function(callback, self) {\n          return [].slice.call(this).map(callback, self);\n        }\n      });\n    }\n  }\n\n  // Patch sort to work with TypedArrays if needed.\n  // TODO: consider to remove\n  following function and replace it with `Kotlin.doubleCompareTo` (see misc.js)\n  var totalOrderComparator =\n  function (a, b) {\n    if (a < b) return -1;\n    if (a > b) return 1;\n\n    if (a === b) {\n      if (a !== 0) return\n      0;\n\n      var ia = 1 / a;\n      return ia === 1 / b ? 0 : (ia < 0 ? -1 : 1);\n    }\n\n    return a !== a ? (b !==\n    b ? 0 : 1) : -1\n  };\n\n  for (var i = 0; i < arrays.length; ++i) {\n    var TypedArray = arrays[i];\n    if (typeof\n    TypedArray.prototype.sort\n    === \"undefined\") {\n      Object.defineProperty(TypedArray.prototype, 'sort', {\n        value:\n        function(compareFunction) {\n          return Array.prototype.sort.call(this, compareFunction ||\n          totalOrderComparator);\n        }\n      });\n    }\n  }\n\n  Kotlin.Kind = {\n    CLASS: \"class\",\n    INTERFACE: \"interface\",\n    OBJECT: \"object\"\n  };\n\n  Kotlin.callGetter = function (thisObject, klass,\n  propertyName) {\n    var propertyDescriptor = Object.getOwnPropertyDescriptor(klass, propertyName);\n    if\n    (propertyDescriptor != null && propertyDescriptor.get != null) {\n      return\n      propertyDescriptor.get.call(thisObject);\n    }\n\n    propertyDescriptor =\n    Object.getOwnPropertyDescriptor(thisObject,\n    propertyName);\n    if (propertyDescriptor != null && \"value\" in propertyDescriptor) {\n      return\n      thisObject[propertyName];\n    }\n\n    return Kotlin.callGetter(thisObject, Object.getPrototypeOf(klass),\n    propertyName);\n  };\n\n  Kotlin.callSetter = function (thisObject, klass, propertyName, value) {\n    var\n    propertyDescriptor = Object.getOwnPropertyDescriptor(klass, propertyName);\n    if (propertyDescriptor != null\n    && propertyDescriptor.set != null) {\n      propertyDescriptor.set.call(thisObject, value);\n      return;\n    }\n\n    propertyDescriptor = Object.getOwnPropertyDescriptor(thisObject, propertyName);\n    if (propertyDescriptor !=\n    null && \"value\" in propertyDescriptor) {\n      thisObject[propertyName] = value;\n      return\n    }\n\n    Kotlin.callSetter(thisObject, Object.getPrototypeOf(klass), propertyName, value);\n  };\n\n  function\n  isInheritanceFromInterface(ctor, iface) {\n    if (ctor === iface) return true;\n\n    var metadata = ctor.$metadata$;\n    if (metadata != null) {\n      var interfaces = metadata.interfaces;\n      for (var i = 0; i < interfaces.length; i++)\n      {\n        if (isInheritanceFromInterface(interfaces[i], iface))\n        {\n          return true;\n        }\n      }\n    }\n\n    var superPrototype = ctor.prototype != null ? Object.getPrototypeOf(ctor.prototype) : null;\n    var superConstructor = superPrototype != null ? superPrototype.constructor : null;\n    return superConstructor != null &&

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isInheritanceFromInterface(superConstructor, iface);\n}\n\n**\n * @param {*} object\n * @param
{Function|Object} klass\n * @returns {Boolean}\n */\nKotlin.isType = function (object, klass) {\n  if (klass ===
Object) {\n    switch (typeof object) {\n      case "string":\n      case "number":\n      case
"boolean":\n      case "function":\n        return true;\n      default:\n        return object instanceof
Object;\n    }\n  }\n\n  if (object == null || klass == null || (typeof object !== 'object' && typeof object !== 'function')) {\n    return
false;\n  }\n\n  if (typeof klass === "function" && object instanceof klass) {\n    return true;\n  }\n\n  var
proto = Object.getPrototypeOf(klass);\n  var constructor = proto != null ? proto.constructor : null;\n  if
(constructor != null && "$metadata$" in constructor) {\n    var metadata = constructor.$metadata$;\n    if
(metadata.kind === Kotlin.Kind.OBJECT) {\n      return object === klass;\n    }\n  }\n\n  var classMetadata
= klass.$metadata$;\n\n  // In WebKit (JavaScriptCore) for some interfaces from DOM typeof returns "object",
nevertheless they can be used in RHS of instanceof\n  if (classMetadata == null) {\n    return object instanceof
klass;\n  }\n\n  if (classMetadata.kind === Kotlin.Kind.INTERFACE && object.constructor != null) {\n
return isInheritanceFromInterface(object.constructor, klass);\n\n  }\n\n  return false;\n};\n\nKotlin.isNumber = function (a) {\n  return typeof a == "number" || a instanceof
Kotlin.Long;\n};\n\nKotlin.isChar = function (value) {\n  return value instanceof
Kotlin.BoxedChar;\n};\n\nKotlin.isComparable = function (value) {\n  var type = typeof value;\n\n  return type
=== "string" ||\n    type === "boolean" ||\n    Kotlin.isNumber(value) ||\n    Kotlin.isType(value,
Kotlin.kotlin.Comparable);\n};\n\nKotlin.isCharSequence = function (value) {\n  return typeof value === "string"
|| Kotlin.isType(value, Kotlin.kotlin.CharSequence);\n};\n\n/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n */\n\n// a package is omitted to get declarations directly under the
module\n\n@PublishedApi\nexternal fun <T> Array(size: Int): Array<T>\n\n@JsName("newArray")\nfun
<T> newArray(size: Int, initialValue: T) = fillArrayVal(Array<T>(size),
initialValue)\n\n@JsName("newArrayF")\ninline fun <T> arrayWithFun(size: Int, init: (Int) -> T) =
fillArrayFun(Array<T>(size), init)\n\n@JsName("fillArray")\ninline fun <T> fillArrayFun(array: Array<T>, init:
(Int) -> T): Array<T> {\n  for (i in 0..array.size - 1) {\n    array[i] = init(i)\n  }\n  return
array\n}\n\n@JsName("booleanArray")\nfun booleanArray(size: Int, init: dynamic): Array<Boolean> {\n  val
result: dynamic = Array<Boolean>(size)\n  result.`$type$` = "BooleanArray"\n  return when (init) {\n    null,
true -> fillArrayVal(result, false)\n    false -> result\n    else -> fillArrayFun<Boolean>(result, init)\n
}\n}\n\n@JsName("booleanArrayF")\ninline fun booleanArrayWithFun(size: Int, init: (Int) -> Boolean):
Array<Boolean> = fillArrayFun(booleanArray(size, false),
init)\n\n@JsName("charArray")\n@Suppress("UNUSED_PARAMETER")\nfun charArray(size: Int, init:
dynamic):
Array<Char> {\n  val result = js("new Uint16Array(size)")\n  result.`$type$` = "CharArray"\n  return when
(init) {\n    null, true, false -> result // For consistency\n    else -> fillArrayFun<Char>(result, init)\n
}\n}\n\n@JsName("charArrayF")\ninline fun charArrayWithFun(size: Int, init: (Int) -> Char): Array<Char> {\n
val array = charArray(size, null)\n  for (i in 0..array.size - 1) {\n    @Suppress("UNUSED_VARIABLE") //
used in js block\n    val value = init(i)\n    js("array[i] = value;")\n  }\n  return
array\n}\n\n@JsName("untypedCharArrayF")\ninline fun untypedCharArrayWithFun(size: Int, init: (Int) -> Char):
Array<Char> {\n  val array = Array<Char>(size)\n  for (i in 0..array.size - 1) {\n
@Suppress("UNUSED_VARIABLE") // used in js block\n    val value = init(i)\n    js("array[i] = value;")\n
}\n  return array\n}\n\n@JsName("longArray")\nfun longArray(size: Int, init: dynamic): Array<Long> {\n
val result: dynamic = Array<Long>(size)\n  result.`$type$` = "LongArray"\n  return when (init) {\n    null,
true -> fillArrayVal(result, 0L)\n    false -> result\n    else -> fillArrayFun<Long>(result, init)\n
}\n}\n\n@JsName("longArrayF")\ninline fun longArrayWithFun(size: Int, init: (Int) -> Long): Array<Long> =
fillArrayFun(longArray(size, false), init)\n\nprivate fun <T> fillArrayVal(array: Array<T>, initialValue: T): Array<T>
{\n  for (i in 0..array.size - 1) {\n    array[i] = initialValue\n  }\n  return array\n}\n\n/*\n * Copyright 2010-2018

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JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\npublic class
Enum<T : Enum<T>> : Comparable<Enum<T>> {\n    @JsName("name$") private var _name: String = ""\n    @JsName("ordinal$") private var _ordinal: Int = 0\n\n    val name: String\n        get() = _name\n\n    val ordinal: Int\n        get() = _ordinal\n\n    override fun compareTo(other: Enum<T>) =
ordinal.compareTo(other.ordinal)\n\n    override fun equals(other: Any?) = this === other\n\n    override fun
hashCode(): Int = js("Kotlin.identityHashCode")(this)\n\n    override fun toString() = name\n\n    companion
object {\n    }"/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of
this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\npackage kotlin.js.internal\n\n@JsName("DoubleCompanionObject")\n\ninternal object
DoubleCompanionObject {\n    @JsName("MIN_VALUE")\n    const val MIN_VALUE: Double = 4.9E-324\n\n    @JsName("MAX_VALUE")\n    const val MAX_VALUE: Double = 1.7976931348623157E308\n\n    @JsName("POSITIVE_INFINITY")\n    @Suppress("DIVISION_BY_ZERO")\n    const val
POSITIVE_INFINITY: Double = 1.0 / 0.0\n\n    @JsName("NEGATIVE_INFINITY")\n    @Suppress("DIVISION_BY_ZERO")\n
const val NEGATIVE_INFINITY: Double = -1.0 / 0.0\n\n    @JsName("NaN")\n    @Suppress("DIVISION_BY_ZERO")\n    const val NaN: Double = -(0.0 / 0.0)\n\n    @JsName("SIZE_BYTES")\n    const val SIZE_BYTES = 8\n\n    @JsName("SIZE_BITS")\n    const val
SIZE_BITS = 64\n}\n\n@JsName("FloatCompanionObject")\n\ninternal object FloatCompanionObject {\n    @JsName("MIN_VALUE")\n    const val MIN_VALUE: Float = 1.4E-45F\n\n    @JsName("MAX_VALUE")\n    const val MAX_VALUE: Float = 3.4028235E38F\n\n    @JsName("POSITIVE_INFINITY")\n    @Suppress("DIVISION_BY_ZERO")\n    const val POSITIVE_INFINITY: Float = 1.0F / 0.0F\n\n    @JsName("NEGATIVE_INFINITY")\n    @Suppress("DIVISION_BY_ZERO")\n    const val
NEGATIVE_INFINITY: Float = -1.0F / 0.0F\n\n    @JsName("NaN")\n    @Suppress("DIVISION_BY_ZERO")\n    const val NaN: Float = -(0.0F / 0.0F)\n\n    @JsName("SIZE_BYTES")\n    const val SIZE_BYTES = 4\n\n    @JsName("SIZE_BITS")\n    const val
SIZE_BITS
= 32\n}\n\n@JsName("IntCompanionObject")\n\ninternal object IntCompanionObject {\n    @JsName("MIN_VALUE")\n    val MIN_VALUE: Int = -2147483647 - 1\n\n    @JsName("MAX_VALUE")\n    val MAX_VALUE: Int = 2147483647\n\n    @JsName("SIZE_BYTES")\n    const val SIZE_BYTES = 4\n\n    @JsName("SIZE_BITS")\n    const val SIZE_BITS = 32\n}\n\n@JsName("LongCompanionObject")\n\ninternal
object LongCompanionObject {\n    @JsName("MIN_VALUE")\n    val MIN_VALUE: Long =
js("Kotlin.Long.MIN_VALUE")\n\n    @JsName("MAX_VALUE")\n    val MAX_VALUE: Long =
js("Kotlin.Long.MAX_VALUE")\n\n    @JsName("SIZE_BYTES")\n    const val SIZE_BYTES = 8\n\n    @JsName("SIZE_BITS")\n    const val SIZE_BITS = 64\n}\n\n@JsName("ShortCompanionObject")\n\ninternal
object ShortCompanionObject {\n    @JsName("MIN_VALUE")\n    val MIN_VALUE: Short = -32768\n\n    @JsName("MAX_VALUE")\n    val MAX_VALUE: Short = 32767\n\n    @JsName("SIZE_BYTES")\n    const
val SIZE_BYTES = 2\n\n    @JsName("SIZE_BITS")\n
const val SIZE_BITS = 16\n}\n\n@JsName("ByteCompanionObject")\n\ninternal object ByteCompanionObject
{\n    @JsName("MIN_VALUE")\n    val MIN_VALUE: Byte = -128\n\n    @JsName("MAX_VALUE")\n    val
MAX_VALUE: Byte = 127\n\n    @JsName("SIZE_BYTES")\n    const val SIZE_BYTES = 1\n\n    @JsName("SIZE_BITS")\n    const val SIZE_BITS = 8\n}\n\n@JsName("CharCompanionObject")\n\ninternal
object CharCompanionObject {\n    @JsName("MIN_VALUE")\n    public const val MIN_VALUE: Char =
"\u0000"\n\n    @JsName("MAX_VALUE")\n    public const val MAX_VALUE: Char = "\uFFFF"\n\n    @JsName("MIN_HIGH_SURROGATE")\n    public const val MIN_HIGH_SURROGATE: Char = "\uD800"\n\n    @JsName("MAX_HIGH_SURROGATE")\n    public const val MAX_HIGH_SURROGATE: Char =
"\uDBFF"\n\n    @JsName("MIN_LOW_SURROGATE")\n    public const val MIN_LOW_SURROGATE: Char =
"\uDC00"\n\n    @JsName("MAX_LOW_SURROGATE")\n    public const val MAX_LOW_SURROGATE: Char

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= "\uDFFF"\n\n
@JsName("MIN_SURROGATE")\n public const val MIN_SURROGATE: Char =
MIN_HIGH_SURROGATE\n\n @JsName("MAX_SURROGATE")\n public const val MAX_SURROGATE:
Char = MAX_LOW_SURROGATE\n\n @JsName("SIZE_BYTES")\n const val SIZE_BYTES = 2\n\n
@JsName("SIZE_BITS")\n const val SIZE_BITS = 16\n}\n\ninternal object StringCompanionObject
{\n\ninternal object BooleanCompanionObject {\n\n",/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n
*\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("ArraysKt")\n\npackage
kotlin.collections\n\n/\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n/\n\nimport kotlin.random.*\nimport
kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n**\n * Returns 1st *element*
from the array.\n * \n * If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in
Kotlin/JS\n * where the behavior is unspecified.\n *\n@kotlin.internal.InlineOnly\npublic inline operator fun <T>
Array<out T>.component1(): T {\n return get(0)\n}\n\n**\n * Returns 1st *element* from the array.\n * \n * If
the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the
behavior is unspecified.\n *\n@kotlin.internal.InlineOnly\npublic inline operator fun ByteArray.component1():
Byte {\n return get(0)\n}\n\n**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is
less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun ShortArray.component1(): Short {\n return
get(0)\n}\n\n**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less
than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun IntArray.component1(): Int {\n return
get(0)\n}\n\n**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1,
throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun LongArray.component1(): Long {\n return
get(0)\n}\n\n**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1,
throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun FloatArray.component1(): Float {\n return
get(0)\n}\n\n**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1,
throws an [IndexOutOfBoundsException] except in Kotlin/JS\n
* where the behavior is unspecified.\n *\n@kotlin.internal.InlineOnly\npublic inline operator fun
DoubleArray.component1(): Double {\n return get(0)\n}\n\n**\n * Returns 1st *element* from the array.\n * \n *
If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the
behavior is unspecified.\n *\n@kotlin.internal.InlineOnly\npublic inline operator fun BooleanArray.component1():
Boolean {\n return get(0)\n}\n\n**\n * Returns 1st *element* from the array.\n * \n * If the size of this array
is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun CharArray.component1(): Char {\n return
get(0)\n}\n\n**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2,
throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*\n@kotlin.internal.InlineOnly\npublic
inline operator fun <T> Array<out T>.component2(): T {\n return get(1)\n}\n\n**\n * Returns 2nd *element*
from the array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in
Kotlin/JS\n * where the behavior is unspecified.\n *\n@kotlin.internal.InlineOnly\npublic inline operator fun
ByteArray.component2(): Byte {\n return get(1)\n}\n\n**\n * Returns 2nd *element* from the array.\n * \n * If
the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the
behavior is unspecified.\n *\n@kotlin.internal.InlineOnly\npublic inline operator fun ShortArray.component2():
Short {\n return get(1)\n}\n\n**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is
less

```

than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

```
*\n@kotlin.internal.InlineOnly\npublic inline operator fun IntArray.component2():
```

Int {\n return get(1)\n}\n\n/\*\*\n \* Returns 2nd \*element\* from the array.\n \* \n \* If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

```
*\n@kotlin.internal.InlineOnly\npublic inline operator fun LongArray.component2(): Long {\n return
```

get(1)\n}\n\n/\*\*\n \* Returns 2nd \*element\* from the array.\n \* \n \* If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

```
*\n@kotlin.internal.InlineOnly\npublic inline operator fun FloatArray.component2(): Float {\n return
```

get(1)\n}\n\n/\*\*\n \* Returns 2nd \*element\* from the array.\n \* \n \* If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

```
*\n@kotlin.internal.InlineOnly\npublic inline operator fun DoubleArray.component2(): Double {\n return
```

get(1)\n}\n\n/\*\*\n \* Returns

2nd \*element\* from the array.\n \* \n \* If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

```
*\n@kotlin.internal.InlineOnly\npublic inline operator fun BooleanArray.component2(): Boolean {\n return
```

get(1)\n}\n\n/\*\*\n \* Returns 2nd \*element\* from the array.\n \* \n \* If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

```
*\n@kotlin.internal.InlineOnly\npublic inline operator fun CharArray.component2(): Char {\n return
```

get(1)\n}\n\n/\*\*\n \* Returns 3rd \*element\* from the array.\n \* \n \* If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

```
*\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Array<out T>.component3(): T {\n return
```

get(2)\n}\n\n/\*\*\n \* Returns 3rd \*element\* from the array.\n \* \n \* If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

```
*\n@kotlin.internal.InlineOnly\npublic inline operator fun ByteArray.component3(): Byte {\n return
```

get(2)\n}\n\n/\*\*\n \* Returns 3rd \*element\* from the array.\n \* \n \* If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

```
*\n@kotlin.internal.InlineOnly\npublic inline operator fun ShortArray.component3(): Short {\n return
```

get(2)\n}\n\n/\*\*\n \* Returns 3rd \*element\* from the array.\n \* \n \* If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

```
*\n@kotlin.internal.InlineOnly\npublic inline operator fun IntArray.component3(): Int {\n return
```

get(2)\n}\n\n/\*\*\n \* Returns 3rd \*element\* from the array.\n \* \n \* If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

```
*\n@kotlin.internal.InlineOnly\npublic inline operator fun LongArray.component3(): Long {\n return
```

get(2)\n}\n\n/\*\*\n \* Returns 3rd \*element\* from the array.\n \* \n \* If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

```
*\n@kotlin.internal.InlineOnly\npublic inline operator fun FloatArray.component3(): Float {\n return
```

get(2)\n}\n\n/\*\*\n \* Returns 3rd \*element\* from the array.\n \* \n \* If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

```
*\n@kotlin.internal.InlineOnly\npublic inline operator fun DoubleArray.component3(): Double {\n return
```

get(2)\n}\n\n/\*\*\n \* Returns 3rd \*element\* from the array.\n \* \n \* If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

```
*\n@kotlin.internal.InlineOnly\npublic inline operator fun BooleanArray.component3(): Boolean {\n return
```

get(2)\n}\n\n/\*\*\n \* Returns 3rd \*element\* from the array.\n \* \n \* If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

```
*\n@kotlin.internal.InlineOnly\npublic inline operator fun CharArray.component3(): Char {\n return
```

get(2)\n}\n\n/\*\*\n \* Returns 4th \*element\* from the array.\n \* \n \* If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

```
*\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Array<out T>.component4(): T {\n return
```

get(3)\n}\n\n/\*\*\n \* Returns 4th \*element\* from the array.\n \* \n \* If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

\*\n@kotlin.internal.InlineOnly\npublic inline operator fun ByteArray.component4(): Byte {\n return get(3)\n}\n\n/\*\*\n \* Returns 4th \*element\* from the array.\n \* \n \* If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n \*\n@kotlin.internal.InlineOnly\npublic inline operator fun ShortArray.component4(): Short {\n return get(3)\n}\n\n/\*\*\n \* Returns 4th \*element\* from the array.\n \* \n \* If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n \*\n@kotlin.internal.InlineOnly\npublic inline operator fun IntArray.component4(): Int {\n return get(3)\n}\n\n/\*\*\n \* Returns 4th \*element\* from the array.\n \* \n \* If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n \*\n@kotlin.internal.InlineOnly\npublic inline operator fun LongArray.component4(): Long {\n return get(3)\n}\n\n/\*\*\n \* Returns 4th \*element\* from the array.\n \* \n \* If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n \*\n@kotlin.internal.InlineOnly\npublic inline operator fun FloatArray.component4(): Float {\n return get(3)\n}\n\n/\*\*\n \* Returns 4th \*element\* from the array.\n \* \n \* If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n \*\n@kotlin.internal.InlineOnly\npublic inline operator fun DoubleArray.component4(): Double {\n return get(3)\n}\n\n/\*\*\n \* Returns 4th \*element\* from the array.\n \* \n \* If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n \*\n@kotlin.internal.InlineOnly\npublic inline operator fun BooleanArray.component4(): Boolean {\n return get(3)\n}\n\n/\*\*\n \* Returns 4th \*element\* from the array.\n \* \n \* If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n \*\n@kotlin.internal.InlineOnly\npublic inline operator fun CharArray.component4(): Char {\n return get(3)\n}\n\n/\*\*\n \* Returns 5th \*element\* from the array.\n \* \n \* If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n \*\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Array<out T>.component5(): T {\n return get(4)\n}\n\n/\*\*\n \* Returns 5th \*element\* from the array.\n \* \n \* If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n \*\n@kotlin.internal.InlineOnly\npublic inline operator fun ByteArray.component5(): Byte {\n return get(4)\n}\n\n/\*\*\n \* Returns 5th \*element\* from the array.\n \* \n \* If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n \*\n@kotlin.internal.InlineOnly\npublic inline operator fun ShortArray.component5(): Short {\n return get(4)\n}\n\n/\*\*\n \* Returns 5th \*element\* from the array.\n \* \n \* If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n \*\n@kotlin.internal.InlineOnly\npublic inline operator fun IntArray.component5(): Int {\n return get(4)\n}\n\n/\*\*\n \* Returns 5th \*element\* from the array.\n \* \n \* If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n \*\n@kotlin.internal.InlineOnly\npublic inline operator fun LongArray.component5(): Long {\n return get(4)\n}\n\n/\*\*\n \* Returns 5th \*element\* from the array.\n \* \n \* If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n \*\n@kotlin.internal.InlineOnly\npublic inline operator fun FloatArray.component5(): Float {\n return get(4)\n}\n\n/\*\*\n \* Returns 5th \*element\* from the array.\n \* \n \* If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n \*\n@kotlin.internal.InlineOnly\npublic inline operator fun DoubleArray.component5(): Double {\n return get(4)\n}\n\n/\*\*\n \* Returns 5th \*element\* from the array.\n \* \n \* If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

```

*  

@kotlin.internal.InlineOnly  

public inline operator fun BooleanArray.component5(): Boolean {  

    return  

    get(4)  

}
  

Returns 5th element from the array.  

If the size of this array is less than 5, throws an  

[IndexOutOfBoundsException] except in Kotlin/JS where the behavior is unspecified.  

  

@kotlin.internal.InlineOnly  

public  

inline operator fun CharArray.component5(): Char {  

    return  

    get(4)  

}
  

Returns `true` if [element] is  

found in the array.  

  

public operator fun <@kotlin.internal.OnlyInputTypes T> Array<out T>.contains(element:  

T): Boolean {  

    return  

    indexOf(element) >= 0  

}
  

Returns `true` if [element] is found in the array.  

  

public operator fun ByteArray.contains(element: Byte): Boolean {  

    return  

    indexOf(element) >= 0  

}
  

Returns `true` if [element] is found in the array.  

  

public operator fun ShortArray.contains(element: Short):  

Boolean {  

    return  

    indexOf(element) >= 0  

}
  

Returns `true` if [element] is found in the array.  

  

public operator fun IntArray.contains(element: Int): Boolean {  

    return  

    indexOf(element) >= 0  

}
  

Returns `true` if [element] is found in the array.  

  

public operator fun LongArray.contains(element: Long):  

Boolean {  

    return  

    indexOf(element) >= 0  

}
  

Returns `true` if  

[element] is found in the array.  

  

@Deprecated("The function has unclear behavior when searching for NaN or  

zero values and will be removed soon. Use 'any { it == element }' instead to continue using this behavior, or  

.asList().contains(element: T)' to get the same search behavior as in a list.", ReplaceWith("any { it == element  

}"))  

@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.6", hiddenSince = "1.7")  

public  

operator fun FloatArray.contains(element: Float): Boolean {  

    return  

    any { it == element }  

}
  

Returns  

`true` if [element] is found in the array.  

  

@Deprecated("The function has unclear behavior when searching for  

NaN or zero values and will be removed soon. Use 'any { it == element }' instead to continue using this behavior, or  

.asList().contains(element: T)' to get the same search behavior as in a list.", ReplaceWith("any { it == element  

}"))  

@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.6", hiddenSince  

= "1.7")  

public operator fun DoubleArray.contains(element: Double): Boolean {  

    return  

    any { it == element }  

}
  

Returns `true` if [element] is found in the array.  

  

public operator fun  

BooleanArray.contains(element: Boolean): Boolean {  

    return  

    indexOf(element) >= 0  

}
  

Returns `true`  

if [element] is found in the array.  

  

public operator fun CharArray.contains(element: Char): Boolean {  

    return  

    indexOf(element) >= 0  

}
  

Returns an element at the given [index] or throws an  

[IndexOutOfBoundsException] if the [index] is out of bounds of this array.  

  

@sample  

samples.collections.Collections.Elements.elementAt  

  

public expect fun <T> Array<out T>.elementAt(index:  

Int): T  

Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index]  

is out of bounds of this array.  

  

@sample  

samples.collections.Collections.Elements.elementAt  

  

public  

expect fun ByteArray.elementAt(index: Int):  

Byte  

Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index]  

is out of bounds of this array.  

  

@sample  

samples.collections.Collections.Elements.elementAt  

  

public  

expect fun ShortArray.elementAt(index: Int): Short  

Returns an element at the given [index] or throws an  

[IndexOutOfBoundsException] if the [index] is out of bounds of this array.  

  

@sample  

samples.collections.Collections.Elements.elementAt  

  

public  

expect fun IntArray.elementAt(index: Int):  

Int  

Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is  

out of bounds of this array.  

  

@sample  

samples.collections.Collections.Elements.elementAt  

  

public  

expect fun LongArray.elementAt(index: Int): Long  

Returns an element at the given [index] or throws an  

[IndexOutOfBoundsException] if the [index] is out of bounds of this array.  

  

@sample  

samples.collections.Collections.Elements.elementAt  

  

public  

expect fun FloatArray.elementAt(index: Int): Float  

Returns an element at the given [index] or  

throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.  

  

@sample  

samples.collections.Collections.Elements.elementAt  

  

public  

expect fun DoubleArray.elementAt(index: Int):  

Double  

Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the  

[index] is out of bounds of this array.  

  

@sample  

samples.collections.Collections.Elements.elementAt  

  

public  

expect fun BooleanArray.elementAt(index: Int): Boolean  

Returns an element at the given

```

```

[index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAt\n * \n\npublic expect fun CharArray.elementAt(index: Int):
Char\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function
if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n * \n\n@kotlin.internal.InlineOnly\n\npublic inline fun
<T> Array<out T>.elementAtOrElse(index: Int, defaultValue: (Int) -> T): T {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n * \n\n@kotlin.internal.InlineOnly\n\npublic inline fun
ByteArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Byte): Byte {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n
*\n\n@kotlin.internal.InlineOnly\n\npublic inline fun ShortArray.elementAtOrElse(index: Int, defaultValue: (Int) ->
Short): Short {\n    return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n *
Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of
bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n
*\n\n@kotlin.internal.InlineOnly\n\npublic inline fun IntArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Int):
Int {\n    return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an
element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this
array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n
*\n\n@kotlin.internal.InlineOnly\n\npublic inline fun LongArray.elementAtOrElse(index: Int, defaultValue:
(Int) -> Long): Long {\n    return if (index >= 0 && index <= lastIndex) get(index) else
defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue]
function if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n * \n\n@kotlin.internal.InlineOnly\n\npublic inline fun
FloatArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Float): Float {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n * \n\n@kotlin.internal.InlineOnly\n\npublic inline fun
DoubleArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Double): Double {\n    return if (index >= 0 &&
index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n *
Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of
bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n
*\n\n@kotlin.internal.InlineOnly\n\npublic inline fun BooleanArray.elementAtOrElse(index: Int, defaultValue: (Int) ->
Boolean): Boolean {\n    return if (index >= 0 && index <= lastIndex) get(index) else
defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue]
function if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n * \n\n@kotlin.internal.InlineOnly\n\npublic inline fun
CharArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Char): Char {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the
[index] is out of bounds of this
array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n
*\n\n@kotlin.internal.InlineOnly\n\npublic inline fun <T> Array<out T>.elementAtOrNull(index: Int): T? {\n    return
this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds
of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n
*\n\n@kotlin.internal.InlineOnly\n\npublic inline fun ByteArray.elementAtOrNull(index: Int): Byte? {\n    return
this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds

```

```

of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n
*\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.elementAtOrNull(index: Int): Short? {\n  return
this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds
of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n
*\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.elementAtOrNull(index: Int): Int? {\n  return
this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds
of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n
*\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.elementAtOrNull(index: Int): Long? {\n  return
this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds
of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n
*\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.elementAtOrNull(index: Int): Float? {\n  return
this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds
of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n
*\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.elementAtOrNull(index: Int): Double? {\n  return
this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds
of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n
*\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.elementAtOrNull(index: Int): Boolean? {\n
return this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of
bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n
*\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.elementAtOrNull(index: Int): Char? {\n  return
this.getOrNull(index)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such
element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n
*\n@kotlin.internal.InlineOnly\npublic
inline fun <T> Array<out T>.find(predicate: (T) -> Boolean): T? {\n  return firstOrNull(predicate)\n}\n\n/**\n *
Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n *\n@kotlin.internal.InlineOnly\npublic inline fun
ByteArray.find(predicate: (Byte) -> Boolean): Byte? {\n  return firstOrNull(predicate)\n}\n\n/**\n * Returns the
first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n *\n@kotlin.internal.InlineOnly\npublic inline fun
ShortArray.find(predicate: (Short) -> Boolean): Short? {\n  return firstOrNull(predicate)\n}\n\n/**\n * Returns the
first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n *\n@kotlin.internal.InlineOnly\npublic inline fun
IntArray.find(predicate: (Int) ->
Boolean): Int? {\n  return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given
[predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n *\n@kotlin.internal.InlineOnly\npublic inline fun
LongArray.find(predicate: (Long) -> Boolean): Long? {\n  return firstOrNull(predicate)\n}\n\n/**\n * Returns the
first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n *\n@kotlin.internal.InlineOnly\npublic inline fun
FloatArray.find(predicate: (Float) -> Boolean): Float? {\n  return firstOrNull(predicate)\n}\n\n/**\n * Returns the
first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n *\n@kotlin.internal.InlineOnly\npublic inline fun
DoubleArray.find(predicate: (Double) -> Boolean): Double? {\n  return firstOrNull(predicate)\n}\n\n/**\n *
Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n *\n@kotlin.internal.InlineOnly\npublic inline fun
BooleanArray.find(predicate: (Boolean) -> Boolean): Boolean? {\n  return firstOrNull(predicate)\n}\n\n/**\n *
Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n *\n@kotlin.internal.InlineOnly\npublic inline fun

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CharArray.find(predicate: (Char) -> Boolean): Char? {\n return firstOrNull(predicate)\n}\n\n/\*\*\n \* Returns the last element matching the given [predicate], or `null` if no such element was found.\n \* \n \* @sample samples.collections.Collections.Elements.find\n \*/\n\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.findLast(predicate: (T) -> Boolean): T? {\n return lastOrNull(predicate)\n}\n\n/\*\*\n \* Returns the last element matching the given [predicate], or `null` if no such element was found.\n \* \n \* @sample samples.collections.Collections.Elements.find\n \*/\n\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.findLast(predicate: (Byte) -> Boolean): Byte? {\n return lastOrNull(predicate)\n}\n\n/\*\*\n \* Returns the last element matching the given [predicate], or `null` if no such element was found.\n \* \n \* @sample samples.collections.Collections.Elements.find\n \*/\n\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.findLast(predicate: (Short) -> Boolean): Short? {\n return lastOrNull(predicate)\n}\n\n/\*\*\n \* Returns the last element matching the given [predicate], or `null` if no such element was found.\n \* \n \* @sample samples.collections.Collections.Elements.find\n \*/\n\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.findLast(predicate: (Int) -> Boolean): Int? {\n return lastOrNull(predicate)\n}\n\n/\*\*\n \* Returns the last element matching the given [predicate], or `null` if no such element was found.\n \* \n \* @sample samples.collections.Collections.Elements.find\n \*/\n\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.findLast(predicate: (Long) -> Boolean): Long? {\n return lastOrNull(predicate)\n}\n\n/\*\*\n \* Returns the last element matching the given [predicate], or `null` if no such element was found.\n \* \n \* @sample samples.collections.Collections.Elements.find\n \*/\n\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.findLast(predicate: (Float) -> Boolean): Float? {\n return lastOrNull(predicate)\n}\n\n/\*\*\n \* Returns the last element matching the given [predicate], or `null` if no such element was found.\n \* \n \* @sample samples.collections.Collections.Elements.find\n \*/\n\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.findLast(predicate: (Double) -> Boolean): Double? {\n return lastOrNull(predicate)\n}\n\n/\*\*\n \* Returns the last element matching the given [predicate], or `null` if no such element was found.\n \* \n \* @sample samples.collections.Collections.Elements.find\n \*/\n\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.findLast(predicate: (Boolean) -> Boolean): Boolean? {\n return lastOrNull(predicate)\n}\n\n/\*\*\n \* Returns the last element matching the given [predicate], or `null` if no such element was found.\n \* \n \* @sample samples.collections.Collections.Elements.find\n \*/\n\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.findLast(predicate: (Char) -> Boolean): Char? {\n return lastOrNull(predicate)\n}\n\n/\*\*\n \* Returns the first element.\n \* \n \* @throws NoSuchElementException if the array is empty.\n \* \n \* @public fun <T> Array<out T>.first(): T {\n if (isEmpty())\n throw NoSuchElementException("Array is empty.")\n return this[0]\n}\n\n/\*\*\n \* Returns the first element.\n \* \n \* @throws NoSuchElementException if the array is empty.\n \* \n \* @public fun ByteArray.first(): Byte {\n if (isEmpty())\n throw NoSuchElementException("Array is empty.")\n return this[0]\n}\n\n/\*\*\n \* Returns the first element.\n \* \n \* @throws NoSuchElementException if the array is empty.\n \* \n \* @public fun ShortArray.first(): Short {\n if (isEmpty())\n throw NoSuchElementException("Array is empty.")\n return this[0]\n}\n\n/\*\*\n \* Returns the first element.\n \* \n \* @throws NoSuchElementException if the array is empty.\n \* \n \* @public fun IntArray.first(): Int {\n if (isEmpty())\n throw NoSuchElementException("Array is empty.")\n return this[0]\n}\n\n/\*\*\n \* Returns the first element.\n \* \n \* @throws NoSuchElementException if the array is empty.\n \* \n \* @public fun LongArray.first(): Long {\n if (isEmpty())\n throw NoSuchElementException("Array is empty.")\n return this[0]\n}\n\n/\*\*\n \* Returns the first element.\n \* \n \* @throws NoSuchElementException if the array is empty.\n \* \n \* @public fun FloatArray.first(): Float {\n if (isEmpty())\n throw NoSuchElementException("Array is empty.")\n return this[0]\n}\n\n/\*\*\n \* Returns the first element.\n \* \n \* @throws NoSuchElementException if the array is empty.\n \* \n \* @public fun DoubleArray.first(): Double {\n if (isEmpty())\n throw NoSuchElementException("Array is empty.")\n return this[0]\n}\n\n/\*\*\n \* Returns the first element.\n \* \n \* @throws NoSuchElementException if the array is empty.\n \* \n \* @public fun BooleanArray.first(): Boolean {\n if (isEmpty())\n throw NoSuchElementException("Array is empty.")\n return this[0]\n}\n\n/\*\*\n \* Returns the

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first element.\n * \n * @throws NoSuchElementException if the array is empty.\n */\npublic fun CharArray.first():  

Char {\n    if (isEmpty())\n        throw NoSuchElementException("Array is empty.")\n    return this[0]\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such  

element is found.\n */\npublic inline fun <T> Array<out T>.first(predicate: (T) -> Boolean): T {\n    for  

(element in this) if (predicate(element)) return element\n    throw NoSuchElementException("Array contains no  

element matching the predicate.")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n *  

@throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun ByteArray.first(predicate:  

(Byte) -> Boolean): Byte {\n    for (element in this) if (predicate(element)) return element\n    throw  

NoSuchElementException("Array contains no element matching the predicate.")\n}\n\n/**\n * Returns the first  

element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n  

*/\npublic inline fun ShortArray.first(predicate: (Short) -> Boolean): Short {\n    for (element in this) if  

(predicate(element)) return element\n    throw NoSuchElementException("Array contains no element matching the  

predicate.")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws  

[NoSuchElementException]  

if no such element is found.\n */\npublic inline fun IntArray.first(predicate: (Int) -> Boolean): Int {\n    for (element  

in this) if (predicate(element)) return element\n    throw NoSuchElementException("Array contains no element  

matching the predicate.")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws  

[NoSuchElementException] if no such element is found.\n */\npublic inline fun LongArray.first(predicate: (Long) -  

> Boolean): Long {\n    for (element in this) if (predicate(element)) return element\n    throw  

NoSuchElementException("Array contains no element matching the predicate.")\n}\n\n/**\n * Returns the first  

element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n  

*/\npublic inline fun FloatArray.first(predicate: (Float) -> Boolean): Float {\n    for (element in this) if  

(predicate(element)) return element\n    throw NoSuchElementException("Array contains no element matching the  

predicate.")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such  

element is found.\n */\npublic inline fun DoubleArray.first(predicate: (Double) -> Boolean): Double {\n    for  

(element in this) if (predicate(element)) return element\n    throw NoSuchElementException("Array contains no  

element matching the predicate.")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n *  

@throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun  

BooleanArray.first(predicate: (Boolean) -> Boolean): Boolean {\n    for (element in this) if (predicate(element))  

return element\n    throw NoSuchElementException("Array contains no element matching the  

predicate.")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws  

[NoSuchElementException] if no such element is found.\n */\npublic inline fun CharArray.first(predicate: (Char) ->  

Boolean): Char {\n    for (element in this)  

if (predicate(element)) return element\n    throw NoSuchElementException("Array contains no element matching  

the predicate.")\n}\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to  

elements of this array in iteration order,\n * or throws [NoSuchElementException] if no non-null value was  

produced.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n  

*/\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Any> Array<out  

T>.firstNotNullOf(transform: (T) -> R?): R {\n    return firstNotNullOfOrNull(transform) ?: throw  

NoSuchElementException("No element of the array was transformed to a non-null value.")\n}\n\n/**\n * Returns  

the first non-null value produced by [transform] function being applied to elements of this array in iteration order,\n  

* or `null` if no non-null value was produced.\n * \n * @sample  

samples.collections.Collections.Transformations.firstNotNullOf\n  

*/\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\npublic  

inline fun <T, R : Any> Array<out T>.firstNotNullOfOrNull(transform: (T) -> R?): R? {\n    for (element in this)  

{\n        val result = transform(element)\n        if (result != null) {\n            return result\n        }\n    }\n    return  

null\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun <T> Array<out

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T?.firstOrNull(): T? {\n    return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if
the array is empty.\n */\npublic fun ByteArray.firstOrNull(): Byte? {\n    return if (isEmpty()) null else
this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun
ShortArray.firstOrNull(): Short? {\n    return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element,
or `null` if the array is empty.\n */\npublic fun IntArray.firstOrNull(): Int? {\n    return if (isEmpty()) null else
this[0]\n}\n\n/**\n * Returns the
first element, or `null` if the array is empty.\n */\npublic fun LongArray.firstOrNull(): Long? {\n    return if
(isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun
FloatArray.firstOrNull(): Float? {\n    return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element,
or `null` if the array is empty.\n */\npublic fun DoubleArray.firstOrNull(): Double? {\n    return if (isEmpty()) null
else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun
BooleanArray.firstOrNull(): Boolean? {\n    return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first
element, or `null` if the array is empty.\n */\npublic fun CharArray.firstOrNull(): Char? {\n    return if (isEmpty())
null else this[0]\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not
found.\n */\npublic inline fun <T> Array<out T>.firstOrNull(predicate:
(T) -> Boolean): T? {\n    for (element in this) if (predicate(element)) return element\n    return null\n}\n\n/**\n *
Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun
ByteArray.firstOrNull(predicate: (Byte) -> Boolean): Byte? {\n    for (element in this) if (predicate(element)) return
element\n    return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element
was not found.\n */\npublic inline fun ShortArray.firstOrNull(predicate: (Short) -> Boolean): Short? {\n    for
(element in this) if (predicate(element)) return element\n    return null\n}\n\n/**\n * Returns the first element
matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun
IntArray.firstOrNull(predicate: (Int) -> Boolean): Int? {\n    for (element in this) if (predicate(element)) return
element\n    return null\n}\n\n/**\n * Returns the first element matching the given [predicate],
or `null` if element was not found.\n */\npublic inline fun LongArray.firstOrNull(predicate: (Long) -> Boolean):
Long? {\n    for (element in this) if (predicate(element)) return element\n    return null\n}\n\n/**\n * Returns the first
element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun
FloatArray.firstOrNull(predicate: (Float) -> Boolean): Float? {\n    for (element in this) if (predicate(element))
return element\n    return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if
element was not found.\n */\npublic inline fun DoubleArray.firstOrNull(predicate: (Double) -> Boolean): Double?
{\n    for (element in this) if (predicate(element)) return element\n    return null\n}\n\n/**\n * Returns the first
element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun
BooleanArray.firstOrNull(predicate: (Boolean) -> Boolean): Boolean? {\n    for (element in this)
if (predicate(element)) return element\n    return null\n}\n\n/**\n * Returns the first element matching the given
[predicate], or `null` if element was not found.\n */\npublic inline fun CharArray.firstOrNull(predicate: (Char) ->
Boolean): Char? {\n    for (element in this) if (predicate(element)) return element\n    return null\n}\n\n/**\n *
Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of
bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.getOrNull(index: Int,
defaultValue: (Int) -> T): T {\n    return if (index >= 0 && index <= lastIndex) get(index) else
defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue]
function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun
ByteArray.getOrNull(index: Int, defaultValue: (Int) -> Byte): Byte {\n    return if (index >=
0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index]
or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.getOrNull(index: Int, defaultValue: (Int) -> Short):
Short {\n    return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns
an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of
this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.getOrNull(index: Int, defaultValue: (Int) ->

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Int): Int {\n    return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n *
Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of
bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.getOrNull(index:
Int, defaultValue: (Int) -> Long): Long {\n    return if (index >= 0 && index <= lastIndex) get(index) else
defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue]
function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun
FloatArray.getOrNull(index: Int, defaultValue: (Int) -> Float): Float {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.getOrNull(index: Int, defaultValue: (Int) ->
Double): Double {\n    return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index]
is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.getOrNull(index:
Int, defaultValue: (Int) -> Boolean): Boolean {\n    return if (index >= 0 && index <= lastIndex) get(index) else
defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue]
function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun
CharArray.getOrNull(index: Int, defaultValue: (Int) -> Char): Char {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the
[index] is out of bounds of this array.\n */\n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun <T> Array<out T>.getOrNull(index: Int): T? {\n    return if (index >= 0 && index <= lastIndex)
get(index) else null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index]
is out of bounds of this array.\n */\n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun
ByteArray.getOrNull(index: Int): Byte? {\n    return if (index >= 0 && index <= lastIndex) get(index) else
null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n */\n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun ShortArray.getOrNull(index: Int):
Short? {\n    return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at
the given [index] or `null` if the [index] is out of bounds of this array.\n */\n * @sample
samples.collections.Collections.Elements.getOrNull\n */\npublic fun IntArray.getOrNull(index: Int): Int? {\n    return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given
[index] or `null` if the [index] is out of bounds of this array.\n */\n * @sample
samples.collections.Collections.Elements.getOrNull\n */\npublic fun LongArray.getOrNull(index: Int): Long? {\n    return if (index >= 0 && index <= lastIndex)
get(index) else null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of
this array.\n */\n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun
FloatArray.getOrNull(index: Int): Float? {\n    return if (index >= 0 && index <= lastIndex) get(index) else
null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n */\n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun DoubleArray.getOrNull(index:
Int): Double? {\n    return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an
element at the given [index] or `null` if the [index] is out of bounds of this array.\n */\n * @sample
samples.collections.Collections.Elements.getOrNull\n */\npublic fun BooleanArray.getOrNull(index:
Int): Boolean? {\n    return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an
element at the given [index] or `null` if the [index] is out of bounds of this array.\n */\n * @sample
samples.collections.Collections.Elements.getOrNull\n */\npublic fun CharArray.getOrNull(index: Int): Char? {\n    return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns first index of [element], or -
1 if the array does not contain element.\n */\n */\npublic fun <@kotlin.internal.OnlyInputTypes T> Array<out
T>.indexOf(element: T): Int {\n    if (element == null) {\n        for (index in indices) {\n            if (this[index] ==
null) {\n                return index\n            }\n        }\n    } else {\n        for (index in indices) {\n            if (element ==
this[index]) {\n                return index\n            }\n        }\n    }\n    return -1\n}\n\n/**\n * Returns first index of

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[element], or -1 if the array does not contain element.\n
*/\npublic fun ByteArray.indexOf(element: Byte): Int {\n    for (index in indices) {\n        if (element ==\n    this[index]) {\n        return index\n    }\n    }\n    return -1\n}\n\n/**\n * Returns first index of [element], or -1 if\n    the array does not contain element.\n */\npublic fun ShortArray.indexOf(element: Short): Int {\n    for (index in\n    indices) {\n        if (element == this[index]) {\n        return index\n    }\n    }\n    return -1\n}\n\n/**\n * Returns\n    first index of [element], or -1 if the array does not contain element.\n */\npublic fun IntArray.indexOf(element: Int):\n    Int {\n    for (index in indices) {\n        if (element == this[index]) {\n        return index\n    }\n    }\n    return -\n    1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\npublic fun\n    LongArray.indexOf(element: Long): Int {\n    for (index in indices) {\n        if (element == this[index]) {\n    return index\n\n    }\n    }\n    return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\n\n*\n@Deprecated("The function has unclear behavior when searching for NaN or zero values and will be removed\n    soon. Use 'indexOfFirst { it == element }' instead to continue using this behavior, or '.asList().indexOf(element: T)'\n    to get the same search behavior as in a list.")\n, ReplaceWith("indexOfFirst { it == element\n    }")\n)\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.6", hiddenSince = "1.7")\npublic fun\n    FloatArray.indexOf(element: Float): Int {\n    for (index in indices) {\n        if (element == this[index]) {\n    return index\n\n    }\n    }\n    return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not\n    contain element.\n */\n\n*\n@Deprecated("The function has unclear behavior when searching for NaN or zero values\n    and will be removed soon. Use 'indexOfFirst { it == element }' instead to continue using this\n    behavior, or '.asList().indexOf(element: T)' to get the same search behavior as in a list.")\n,\n    ReplaceWith("indexOfFirst { it == element }")\n)\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince =\n    "1.6", hiddenSince = "1.7")\npublic fun DoubleArray.indexOf(element: Double): Int {\n    for (index in indices)\n    {\n        if (element == this[index]) {\n        return index\n    }\n    }\n    return -1\n}\n\n/**\n * Returns first\n    index of [element], or -1 if the array does not contain element.\n */\n\n*\npublic fun BooleanArray.indexOf(element:\n    Boolean): Int {\n    for (index in indices) {\n        if (element == this[index]) {\n        return index\n    }\n    }\n    return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\n\n*\npublic fun\n    CharArray.indexOf(element: Char): Int {\n    for (index in indices) {\n        if (element == this[index]) {\n    return index\n\n    }\n    }\n    return -1\n}\n\n/**\n * Returns\n    index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\n\n*\npublic inline fun <T> Array<out T>.indexOfFirst(predicate: (T) -> Boolean): Int {\n    for (index in indices) {\n        if (predicate(this[index])) {\n        return index\n    }\n    }\n    return -1\n}\n\n/**\n * Returns index of the\n    first element matching the given [predicate], or -1 if the array does not contain such element.\n */\n\n*\npublic inline fun\n    ByteArray.indexOfFirst(predicate: (Byte) -> Boolean): Int {\n    for (index in indices) {\n        if\n        (predicate(this[index])) {\n        return index\n    }\n    }\n    return -1\n}\n\n/**\n * Returns index of the first\n    element matching the given [predicate], or -1 if the array does not contain such element.\n */\n\n*\npublic inline fun\n    ShortArray.indexOfFirst(predicate: (Short) -> Boolean): Int {\n    for (index in indices) {\n        if\n        (predicate(this[index])) {\n        return index\n    }\n    }\n    return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array\n    does not contain such element.\n */\n\n*\npublic inline fun IntArray.indexOfFirst(predicate: (Int) -> Boolean): Int {\n    for\n    (index in indices) {\n        if (predicate(this[index])) {\n        return index\n    }\n    }\n    return -\n    1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain\n    such element.\n */\n\n*\npublic inline fun LongArray.indexOfFirst(predicate: (Long) -> Boolean): Int {\n    for (index in\n    indices) {\n        if (predicate(this[index])) {\n        return index\n    }\n    }\n    return -1\n}\n\n/**\n * Returns\n    index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\n\n*\npublic inline fun FloatArray.indexOfFirst(predicate: (Float) -> Boolean): Int {\n    for (index in indices) {\n    if\n    (predicate(this[index])) {\n\n    return index\n    }\n    }\n    return -1\n}\n\n/**\n * Returns index of the first element matching the given\n    [predicate], or -1 if the array does not contain such element.\n */\n\n*\npublic inline fun

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DoubleArray.indexOfFirst(predicate: (Double) -> Boolean): Int {
    for (index in indices) {
        if (predicate(this[index])) {
            return index
        }
    }
    return -1
}
// Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.
public inline fun BooleanArray.indexOfFirst(predicate: (Boolean) -> Boolean): Int {
    for (index in indices) {
        if (predicate(this[index])) {
            return index
        }
    }
    return -1
}
// Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.
public inline fun CharArray.indexOfFirst(predicate: (Char) -> Boolean): Int {
    for (index in indices) {
        if (predicate(this[index])) {
            return index
        }
    }
    return -1
}
// Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.
public inline fun <T> Array<out T>.indexOfLast(predicate: (T) -> Boolean): Int {
    for (index in indices.reversed()) {
        if (predicate(this[index])) {
            return index
        }
    }
    return -1
}
// Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.
public inline fun ByteArray.indexOfLast(predicate: (Byte) -> Boolean): Int {
    for (index in indices.reversed()) {
        if (predicate(this[index])) {
            return index
        }
    }
    return -1
}
// Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.
public inline fun ShortArray.indexOfLast(predicate: (Short) -> Boolean): Int {
    for (index in indices.reversed()) {
        if (predicate(this[index])) {
            return index
        }
    }
    return -1
}
// Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.
public inline fun IntArray.indexOfLast(predicate: (Int) -> Boolean): Int {
    for (index in indices.reversed()) {
        if (predicate(this[index])) {
            return index
        }
    }
    return -1
}
// Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.
public inline fun LongArray.indexOfLast(predicate: (Long) -> Boolean): Int {
    for (index in indices.reversed()) {
        if (predicate(this[index])) {
            return index
        }
    }
    return -1
}
// Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.
public inline fun FloatArray.indexOfLast(predicate: (Float) -> Boolean): Int {
    for (index in indices.reversed()) {
        if (predicate(this[index])) {
            return index
        }
    }
    return -1
}
// Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.
public inline fun DoubleArray.indexOfLast(predicate: (Double) -> Boolean): Int {
    for (index in indices.reversed()) {
        if (predicate(this[index])) {
            return index
        }
    }
    return -1
}
// Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.
public inline fun BooleanArray.indexOfLast(predicate: (Boolean) -> Boolean): Int {
    for (index in indices.reversed()) {
        if (predicate(this[index])) {
            return index
        }
    }
    return -1
}
// Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.
public inline fun CharArray.indexOfLast(predicate: (Char) -> Boolean): Int {
    for (index in indices.reversed()) {
        if (predicate(this[index])) {
            return index
        }
    }
    return -1
}
// Returns the last element.
// @throws NoSuchElementException if the array is empty.
// @sample samples.collections.Collections.Elements.last
public fun <T> Array<out T>.last(): T {
    if (isEmpty()) {
        throw NoSuchElementException("Array is empty.")
    }
    return this[lastIndex]
}
// Returns the last element.
// @throws NoSuchElementException if the array is empty.
// @sample samples.collections.Collections.Elements.last
public fun ByteArray.last(): Byte {
    if (isEmpty()) {
        throw NoSuchElementException("Array is empty.")
    }
    return this[lastIndex]
}
// Returns the last element.
// @throws NoSuchElementException if the array is empty.
// @sample samples.collections.Collections.Elements.last
public fun ShortArray.last(): Short {
    if (isEmpty()) {
        throw NoSuchElementException("Array is empty.")
    }
    return this[lastIndex]
}
// Returns the last element.
// @throws NoSuchElementException if the array is empty.
// @sample samples.collections.Collections.Elements.last
public fun IntArray.last(): Int {
    if (isEmpty()) {
        throw NoSuchElementException("Array is empty.")
    }
    return this[lastIndex]
}
// Returns the last element.

```

```

\n * @throws NoSuchElementException if the array is empty.\n * \n * @sample
samples.collections.Collections.Elements.last\n */\npublic fun LongArray.last(): Long {\n    if (isEmpty())\n        throw NoSuchElementException("Array is empty.")\n    return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample
samples.collections.Collections.Elements.last\n */\npublic fun FloatArray.last(): Float {\n    if (isEmpty())\n        throw NoSuchElementException("Array is empty.")\n    return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample
samples.collections.Collections.Elements.last\n */\npublic fun DoubleArray.last(): Double {\n    if (isEmpty())\n        throw NoSuchElementException("Array is empty.")\n    return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample
samples.collections.Collections.Elements.last\n */\npublic fun BooleanArray.last(): Boolean {\n    if (isEmpty())\n        throw NoSuchElementException("Array is empty.")\n    return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample
samples.collections.Collections.Elements.last\n */\npublic fun CharArray.last():\n    Char {\n    if (isEmpty())\n        throw NoSuchElementException("Array is empty.")\n    return\n        this[lastIndex]\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws\n        NoSuchElementException if no such element is found.\n * \n * @sample
samples.collections.Collections.Elements.last\n */\npublic inline fun <T> Array<out T>.last(predicate: (T) ->\n    Boolean): T {\n    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if\n            (predicate(element)) return element\n    }\n    throw NoSuchElementException("Array contains no element\n        matching the predicate.")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws\n        NoSuchElementException if no such element is found.\n * \n * @sample
samples.collections.Collections.Elements.last\n */\npublic inline fun ByteArray.last(predicate: (Byte) -> Boolean):\n    Byte {\n    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if\n            (predicate(element)) return element\n    }\n    throw NoSuchElementException("Array contains no element\n        matching the predicate.")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws\n        NoSuchElementException if no such element is found.\n * \n * @sample
samples.collections.Collections.Elements.last\n */\npublic inline fun ShortArray.last(predicate: (Short) -> Boolean):\n    Short {\n    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if\n            (predicate(element))\n            return element\n    }\n    throw NoSuchElementException("Array contains no element matching the\n        predicate.")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws\n        NoSuchElementException if no such element is found.\n * \n * @sample
samples.collections.Collections.Elements.last\n */\npublic inline fun IntArray.last(predicate: (Int) -> Boolean): Int\n    {\n    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if\n            (predicate(element)) return element\n    }\n    throw NoSuchElementException("Array contains no element\n        matching the predicate.")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws\n        NoSuchElementException if no such element is found.\n * \n * @sample
samples.collections.Collections.Elements.last\n */\npublic inline fun LongArray.last(predicate: (Long) -> Boolean):\n    Long {\n    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if\n            (predicate(element))\n            return element\n    }\n    throw NoSuchElementException("Array contains no element matching the\n        predicate.")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws\n        NoSuchElementException if no such element is found.\n * \n * @sample
samples.collections.Collections.Elements.last\n */\npublic inline fun FloatArray.last(predicate: (Float) -> Boolean):\n    Float {\n    for (index in this.indices.reversed()) {\n        val element =\n            this[index]\n        if\n            (predicate(element)) return element\n    }\n    throw NoSuchElementException("Array contains\n        no element matching the predicate.")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws\n        NoSuchElementException if no such element is found.\n * \n * @sample

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samples.collections.Collections.Elements.last\n *^public inline fun DoubleArray.last(predicate: (Double) ->
Boolean): Double {\n for (index in this.indices.reversed()) {\n val element = this[index]\n if
(predicate(element)) return element\n }\n throw NoSuchElementException("Array contains no element
matching the predicate.")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws
NoSuchElementException if no such element is found.\n * \n * @sample
samples.collections.Collections.Elements.last\n *^public inline fun BooleanArray.last(predicate: (Boolean) ->
Boolean): Boolean {\n for (index in this.indices.reversed())
{\n val element = this[index]\n if (predicate(element)) return element\n }\n throw
NoSuchElementException("Array contains no element matching the predicate.")\n}\n\n/**\n * Returns the last
element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n
* \n * @sample
samples.collections.Collections.Elements.last\n *^public inline fun CharArray.last(predicate:
(Char) -> Boolean): Char {\n for (index in this.indices.reversed()) {\n val element = this[index]\n if
(predicate(element)) return element\n }\n throw NoSuchElementException("Array contains no element
matching the predicate.")\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain
element.\n *^public fun <@kotlin.internal.OnlyInputTypes T> Array<out T>.lastIndexOf(element: T): Int {\n if
(element == null) {\n for (index in indices.reversed()) {\n if (this[index] == null) {\n
return index\n }\n }\n } else {\n for (index in indices.reversed()) {\n if (element ==
this[index]) {\n return index\n }\n }\n }\n return -1\n}\n\n/**\n * Returns last index of
[element], or -1 if the array does not contain element.\n *^public fun ByteArray.lastIndexOf(element: Byte): Int
{\n for (index in indices.reversed()) {\n if (element == this[index]) {\n return index\n }\n }\n
return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n *^public fun
ShortArray.lastIndexOf(element: Short): Int {\n for (index in indices.reversed()) {\n if (element ==
this[index]) {\n return index\n }\n }\n return -1\n}\n\n/**\n * Returns last index of [element], or -1 if
the array does not contain element.\n *^public fun IntArray.lastIndexOf(element: Int): Int {\n for (index in
indices.reversed())
{\n if (element == this[index]) {\n return index\n }\n }\n return -1\n}\n\n/**\n * Returns last
index of [element], or -1 if the array does not contain element.\n *^public fun LongArray.lastIndexOf(element:
Long): Int {\n for (index in indices.reversed()) {\n if (element == this[index]) {\n return index\n
}\n }\n return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n
*^@Deprecated("The function has unclear behavior when searching for NaN or zero values and will be removed
soon. Use 'indexOfLast { it == element }' instead to continue using this behavior, or '.asList().lastIndexOf(element:
T)' to get the same search behavior as in a list.", ReplaceWith("indexOfLast { it == element
}"))\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince = "1.6", hiddenSince = "1.7")\npublic fun
FloatArray.lastIndexOf(element: Float): Int {\n for (index in indices.reversed())
{\n if (element == this[index]) {\n return index\n }\n }\n return -1\n}\n\n/**\n * Returns last
index of [element], or -1 if the array does not contain element.\n *^@Deprecated("The function has unclear
behavior when searching for NaN or zero values and will be removed soon. Use 'indexOfLast { it == element }'
instead to continue using this behavior, or '.asList().lastIndexOf(element: T)' to get the same search behavior as in a
list.", ReplaceWith("indexOfLast { it == element }"))\n@DeprecatedSinceKotlin(warningSince = "1.4",
errorSince = "1.6", hiddenSince = "1.7")\npublic fun DoubleArray.lastIndexOf(element: Double): Int {\n for
(index in indices.reversed()) {\n if (element == this[index]) {\n return index\n }\n }\n return -
1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n *^public fun
BooleanArray.lastIndexOf(element: Boolean): Int {\n for (index in indices.reversed())
{\n if (element == this[index]) {\n return index\n }\n }\n return -1\n}\n\n/**\n * Returns last
index of [element], or -1 if the array does not contain element.\n *^public fun CharArray.lastIndexOf(element:
Char): Int {\n for (index in indices.reversed()) {\n if (element == this[index]) {\n return index\n
}\n }\n return -1\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample
samples.collections.Collections.Elements.last\n *^public fun <T> Array<out T>.lastOrNull(): T? {\n return if

```



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(isEmpty()) null else this[size - 1]\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n *
@sample samples.collections.Collections.Elements.last\n */\npublic fun ByteArray.lastOrNull(): Byte? {\n    return
if (isEmpty()) null else this[size - 1]\n\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n *
@sample samples.collections.Collections.Elements.last\n */\npublic fun ShortArray.lastOrNull(): Short? {\n    return if (isEmpty()) null else this[size - 1]\n\n}\n\n/**\n *
Returns the last element, or `null` if the array is empty.\n * \n * @sample
samples.collections.Collections.Elements.last\n */\npublic fun IntArray.lastOrNull(): Int? {\n    return if (isEmpty())
null else this[size - 1]\n\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample
samples.collections.Collections.Elements.last\n */\npublic fun LongArray.lastOrNull(): Long? {\n    return if
(isEmpty()) null else this[size - 1]\n\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n *
@sample samples.collections.Collections.Elements.last\n */\npublic fun FloatArray.lastOrNull(): Float? {\n    return
if (isEmpty()) null else this[size - 1]\n\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n *
@sample samples.collections.Collections.Elements.last\n */\npublic fun DoubleArray.lastOrNull():
Double? {\n    return if (isEmpty()) null else this[size - 1]\n\n}\n\n/**\n * Returns the last element, or `null` if the
array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun
BooleanArray.lastOrNull(): Boolean? {\n    return if (isEmpty()) null else this[size - 1]\n\n}\n\n/**\n * Returns the last
element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic
fun CharArray.lastOrNull(): Char? {\n    return if (isEmpty()) null else this[size - 1]\n\n}\n\n/**\n * Returns the last
element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.last\n */\npublic inline fun <T> Array<out T>.lastOrNull(predicate: (T) ->
Boolean): T? {\n    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if
(predicate(element)) return element\n    }\n    return null\n}\n\n}\n\n/**\n * Returns the last
element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.last\n */\npublic inline fun ByteArray.lastOrNull(predicate: (Byte) ->
Boolean): Byte? {\n    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if
(predicate(element)) return element\n    }\n    return null\n}\n\n}\n\n/**\n * Returns the last element matching the given
[predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.last\n */\npublic inline fun ShortArray.lastOrNull(predicate: (Short) ->
Boolean): Short? {\n    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if
(predicate(element)) return element\n    }\n    return null\n}\n\n}\n\n/**\n * Returns the last element matching the given
[predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.last\n */\npublic inline fun IntArray.lastOrNull(predicate:
(Int) -> Boolean): Int? {\n    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if
(predicate(element)) return element\n    }\n    return null\n}\n\n}\n\n/**\n * Returns the last element matching the given
[predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.last\n */\npublic inline fun LongArray.lastOrNull(predicate: (Long) ->
Boolean): Long? {\n    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if
(predicate(element)) return element\n    }\n    return null\n}\n\n}\n\n/**\n * Returns the last element matching the given
[predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.last\n */\npublic inline fun FloatArray.lastOrNull(predicate: (Float) ->
Boolean): Float? {\n    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if
(predicate(element)) return element\n    }\n    return null\n}\n\n}\n\n/**\n * Returns the last element matching the given
[predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun
DoubleArray.lastOrNull(predicate: (Double) -> Boolean): Double? {\n    for (index in this.indices.reversed()) {\n
val element = this[index]\n        if (predicate(element)) return element\n    }\n    return null\n}\n\n}\n\n/**\n * Returns the
last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.last\n */\npublic inline fun BooleanArray.lastOrNull(predicate: (Boolean)

```

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-> Boolean): Boolean? {
    for (index in this.indices.reversed()) {
        val element = this[index]
        if (predicate(element)) return element
    }
    return null
}

Returns the last element matching the given [predicate], or `null` if no such element was found.

@sample
samples.collections.Collections.Elements.last

public inline fun CharArray.lastOrNull(predicate: (Char) -> Boolean): Char? {
    for (index in this.indices.reversed()) {
        val element = this[index]
        if (predicate(element)) return element
    }
    return null
}

Returns a random element from this array.

@throws NoSuchElementException if this array is empty.

@SinceKotlin("1.3")
@kotlin.internal.InlineOnly
public inline fun <T> Array<out T>.random(): T {
    return random(Random)
}

Returns a random element from this array.

@throws NoSuchElementException if this array is empty.

@SinceKotlin("1.3")
@kotlin.internal.InlineOnly
public inline fun ByteArray.random(): Byte {
    return random(Random)
}

Returns a random element from this array.

@throws NoSuchElementException if this array is empty.

@SinceKotlin("1.3")
@kotlin.internal.InlineOnly
public inline fun ShortArray.random(): Short {
    return random(Random)
}

Returns a random element from this array.

@throws NoSuchElementException if this array is empty.

@SinceKotlin("1.3")
@kotlin.internal.InlineOnly
public inline fun IntArray.random(): Int {
    return random(Random)
}

Returns a random element from this array.

@throws NoSuchElementException if this array is empty.

@SinceKotlin("1.3")
@kotlin.internal.InlineOnly
public inline fun LongArray.random(): Long {
    return random(Random)
}

Returns a random element from this array.

@throws NoSuchElementException if this array is empty.

@SinceKotlin("1.3")
@kotlin.internal.InlineOnly
public inline fun FloatArray.random(): Float {
    return random(Random)
}

Returns a random element from this array.

@throws NoSuchElementException if this array is empty.

@SinceKotlin("1.3")
@kotlin.internal.InlineOnly
public inline fun DoubleArray.random(): Double {
    return random(Random)
}

Returns a random element from this array.

@throws NoSuchElementException if this array is empty.

@SinceKotlin("1.3")
@kotlin.internal.InlineOnly
public inline fun BooleanArray.random(): Boolean {
    return random(Random)
}

Returns a random element from this array.

@throws NoSuchElementException if this array is empty.

@SinceKotlin("1.3")
@kotlin.internal.InlineOnly
public inline fun CharArray.random(): Char {
    return random(Random)
}

Returns a random element from this array using the specified source of randomness.

@throws NoSuchElementException if this array is empty.

@SinceKotlin("1.3")
public fun <T> Array<out T>.random(random: Random): T {
    if (isEmpty())
        throw NoSuchElementException("Array is empty.")
    return get(random.nextInt(size))
}

Returns a random element from this array using the specified source of randomness.

@throws NoSuchElementException if this array is empty.

@SinceKotlin("1.3")
public fun ByteArray.random(random: Random): Byte {
    if (isEmpty())
        throw NoSuchElementException("Array is empty.")
    return get(random.nextInt(size))
}

Returns a random element from this array using the specified source of randomness.

@throws NoSuchElementException if this array is empty.

@SinceKotlin("1.3")
public fun ShortArray.random(random: Random): Short {
    if (isEmpty())
        throw NoSuchElementException("Array is empty.")
    return get(random.nextInt(size))
}

Returns a random element from this array using the specified source of randomness.

@throws NoSuchElementException if this array is empty.

@SinceKotlin("1.3")
public fun IntArray.random(random: Random): Int {
    if (isEmpty())
        throw NoSuchElementException("Array is empty.")
    return get(random.nextInt(size))
}

Returns a random element from this array using the specified source of randomness.

@throws NoSuchElementException if this array is empty.

@SinceKotlin("1.3")
public fun LongArray.random(random: Random): Long {
    if (isEmpty())
        throw NoSuchElementException("Array is empty.")
    return get(random.nextInt(size))
}

Returns a random element from this array using the

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specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n
*\n@SinceKotlin("1.3")\npublic fun FloatArray.random(random: Random): Float {\n if (isEmpty())\n throw
NoSuchElementException("Array is empty.")\n return get(random.nextInt(size))\n}\n\n/**\n * Returns a random
element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if
this array is empty.\n *\n@SinceKotlin("1.3")\npublic fun DoubleArray.random(random: Random): Double {\n
if (isEmpty())\n throw NoSuchElementException("Array
is empty.")\n return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the
specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n
*\n@SinceKotlin("1.3")\npublic fun BooleanArray.random(random: Random): Boolean {\n if (isEmpty())\n
throw NoSuchElementException("Array is empty.")\n return get(random.nextInt(size))\n}\n\n/**\n * Returns a
random element from this array using the specified source of randomness.\n * \n * @throws
NoSuchElementException if this array is empty.\n *\n@SinceKotlin("1.3")\npublic fun
CharArray.random(random: Random): Char {\n if (isEmpty())\n throw NoSuchElementException("Array is
empty.")\n return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array, or `null` if
this array is empty.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline
fun <T> Array<out T>.randomOrNull(): T? {\n return randomOrNull(Random)\n}\n\n/**\n * Returns a random
element from this array, or `null` if this array is empty.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline fun ByteArray.randomOrNull(): Byte? {\n return randomOrNull(Random)\n}\n\n/**\n * Returns a random
element from this array, or `null` if this array is empty.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline fun ShortArray.randomOrNull(): Short? {\n return randomOrNull(Random)\n}\n\n/**\n * Returns a
random element from this array, or `null` if this array is empty.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline fun IntArray.randomOrNull(): Int? {\n return randomOrNull(Random)\n}\n\n/**\n * Returns a random
element from this array, or `null` if this array is
empty.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline fun LongArray.randomOrNull(): Long? {\n return randomOrNull(Random)\n}\n\n/**\n * Returns a
random element from this array, or `null` if this array is empty.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline fun FloatArray.randomOrNull(): Float? {\n return randomOrNull(Random)\n}\n\n/**\n * Returns a
random element from this array, or `null` if this array is empty.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline fun DoubleArray.randomOrNull(): Double? {\n return randomOrNull(Random)\n}\n\n/**\n * Returns a
random element from this array, or `null` if this array is empty.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline fun BooleanArray.randomOrNull():
Boolean? {\n return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if
this array is empty.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline fun CharArray.randomOrNull(): Char? {\n return randomOrNull(Random)\n}\n\n/**\n * Returns a
random element from this array using the specified source of randomness, or `null` if this array is empty.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T> Array<out
T>.randomOrNull(random: Random): T? {\n if (isEmpty())\n return null\n return
get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of

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randomness, or `null` if this array is empty.

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*^@SinceKotlin("1.4")^@WasExperimental(ExperimentalStdlibApi::class)^npublic fun
ByteArray.randomOrNull(random: Random): Byte? {^n if (isEmpty())^n return null^n return
get(random.nextInt(size))^n}^n/^n/**^n * Returns a random element from this array using the specified source of
randomness, or `null` if this array is empty.^n
*^@SinceKotlin("1.4")^@WasExperimental(ExperimentalStdlibApi::class)^npublic fun
ShortArray.randomOrNull(random: Random): Short? {^n if (isEmpty())^n return null^n return
get(random.nextInt(size))^n}^n/^n/**^n * Returns a random element from this array using the specified source of
randomness, or `null` if this array is empty.^n
*^@SinceKotlin("1.4")^@WasExperimental(ExperimentalStdlibApi::class)^npublic fun
IntArray.randomOrNull(random: Random): Int? {^n if (isEmpty())^n return null^n return
get(random.nextInt(size))^n}^n/^n/**^n * Returns a random element from this array using the specified source of
randomness, or `null` if this array is empty.^n
*^@SinceKotlin("1.4")^@WasExperimental(ExperimentalStdlibApi::class)^npublic fun
LongArray.randomOrNull(random: Random): Long? {^n if (isEmpty())^n
return null^n return get(random.nextInt(size))^n}^n/^n/**^n * Returns a random element from this array using
the specified source of randomness, or `null` if this array is empty.^n
*^@SinceKotlin("1.4")^@WasExperimental(ExperimentalStdlibApi::class)^npublic fun
FloatArray.randomOrNull(random: Random): Float? {^n if (isEmpty())^n return null^n return
get(random.nextInt(size))^n}^n/^n/**^n * Returns a random element from this array using the specified source of
randomness, or `null` if this array is empty.^n
*^@SinceKotlin("1.4")^@WasExperimental(ExperimentalStdlibApi::class)^npublic fun
DoubleArray.randomOrNull(random: Random): Double? {^n if (isEmpty())^n return null^n return
get(random.nextInt(size))^n}^n/^n/**^n * Returns a random element from this array using the specified source of
randomness, or `null` if this array is empty.^n
*^@SinceKotlin("1.4")^@WasExperimental(ExperimentalStdlibApi::class)^npublic fun
BooleanArray.randomOrNull(random:
Random): Boolean? {^n if (isEmpty())^n return null^n return get(random.nextInt(size))^n}^n/^n/**^n *
Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.^n
*^@SinceKotlin("1.4")^@WasExperimental(ExperimentalStdlibApi::class)^npublic fun
CharArray.randomOrNull(random: Random): Char? {^n if (isEmpty())^n return null^n return
get(random.nextInt(size))^n}^n/^n/**^n * Returns the single element, or throws an exception if the array is empty or
has more than one element.^n *^npublic fun <T> Array<out T>.single(): T {^n return when (size) {^n 0 ->
throw NoSuchElementException("Array is empty.")^n 1 -> this[0]^n else -> throw
IllegalArgumentException("Array has more than one element.")^n }^n}^n/^n/**^n * Returns the single element, or
throws an exception if the array is empty or has more than one element.^n *^npublic fun ByteArray.single(): Byte
{^n
return when (size) {^n 0 -> throw NoSuchElementException("Array is empty.")^n 1 -> this[0]^n else
-> throw IllegalArgumentException("Array has more than one element.")^n }^n}^n/^n/**^n * Returns the single
element, or throws an exception if the array is empty or has more than one element.^n *^npublic fun
ShortArray.single(): Short {^n return when (size) {^n 0 -> throw NoSuchElementException("Array is
empty.")^n 1 -> this[0]^n else -> throw IllegalArgumentException("Array has more than one element.")^n
}^n}^n/^n/**^n * Returns the single element, or throws an exception if the array is empty or has more than one
element.^n *^npublic fun IntArray.single(): Int {^n return when (size) {^n 0 -> throw
NoSuchElementException("Array is empty.")^n 1 -> this[0]^n else -> throw
IllegalArgumentException("Array has more than one element.")^n }^n}^n/^n/**^n * Returns the single element, or
throws an exception if

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the array is empty or has more than one element.\n */\npublic fun LongArray.single(): Long {\n    return when
(size) {\n        0 -> throw NoSuchElementException("Array is empty.")\n        1 -> this[0]\n        else -> throw
IllegalArgumentException("Array has more than one element.")\n    }\n}\n\n/**\n * Returns the single element, or
throws an exception if the array is empty or has more than one element.\n */\npublic fun FloatArray.single(): Float
{\n    return when (size) {\n        0 -> throw NoSuchElementException("Array is empty.")\n        1 -> this[0]\n
else -> throw IllegalArgumentException("Array has more than one element.")\n    }\n}\n\n/**\n * Returns the
single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun
DoubleArray.single(): Double {\n    return when (size) {\n        0 -> throw NoSuchElementException("Array is
empty.")\n        1 -> this[0]\n        else -> throw IllegalArgumentException("Array
has more than one element.")\n    }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is
empty or has more than one element.\n */\npublic fun BooleanArray.single(): Boolean {\n    return when (size) {\n
0 -> throw NoSuchElementException("Array is empty.")\n        1 -> this[0]\n        else -> throw
IllegalArgumentException("Array has more than one element.")\n    }\n}\n\n/**\n * Returns the single element, or
throws an exception if the array is empty or has more than one element.\n */\npublic fun CharArray.single(): Char
{\n    return when (size) {\n        0 -> throw NoSuchElementException("Array is empty.")\n        1 -> this[0]\n
else -> throw IllegalArgumentException("Array has more than one element.")\n    }\n}\n\n/**\n * Returns the
single element matching the given [predicate], or throws exception if there is no or more than one matching
element.\n */\npublic inline fun <T> Array<out T>.single(predicate: (T) -> Boolean): T {\n
    var single: T? = null\n    var found = false\n    for (element in this) {\n        if (predicate(element)) {\n
            if
(found) throw IllegalArgumentException("Array contains more than one matching element.")\n            single =
element\n            found = true\n        }\n    }\n    if (!found) throw NoSuchElementException("Array contains no
element matching the predicate.")\n    @Suppress("UNCHECKED_CAST")\n    return single as T\n}\n\n/**\n * Returns
the single element matching the given [predicate], or throws exception if there is no or more than one
matching element.\n */\npublic inline fun ByteArray.single(predicate: (Byte) -> Boolean): Byte {\n    var single:
Byte? = null\n    var found = false\n    for (element in this) {\n        if (predicate(element)) {\n            if
(found) throw
IllegalArgumentException("Array contains more than one matching element.")\n            single = element\n
found = true\n        }\n    }\n    if (!found) throw NoSuchElementException("Array
contains no element matching the predicate.")\n    @Suppress("UNCHECKED_CAST")\n    return single as
Byte\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or
more than one matching element.\n */\npublic inline fun ShortArray.single(predicate: (Short) -> Boolean): Short {\n
    var single: Short? = null\n    var found = false\n    for (element in this) {\n        if (predicate(element))
{\n            if
(found) throw IllegalArgumentException("Array contains more than one matching element.")\n            single =
element\n            found = true\n        }\n    }\n    if (!found) throw NoSuchElementException("Array
contains no element matching the predicate.")\n    @Suppress("UNCHECKED_CAST")\n    return single as Short\n}\n\n/**
* Returns the single element matching the given [predicate], or throws exception if there is no or more than one
matching element.\n */\npublic inline fun IntArray.single(predicate:
(Int) -> Boolean): Int {\n    var single: Int? = null\n    var found = false\n    for (element in this) {\n        if
(predicate(element)) {\n            if
(found) throw IllegalArgumentException("Array contains more than one
matching element.")\n            single = element\n            found = true\n        }\n    }\n    if (!found) throw
NoSuchElementException("Array contains no element matching the predicate.")\n    @Suppress("UNCHECKED_CAST")\n
    return single as Int\n}\n\n/**\n * Returns the single element matching
the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun
LongArray.single(predicate: (Long) -> Boolean): Long {\n    var single: Long? = null\n    var found = false\n    for
(element in this) {\n        if (predicate(element)) {\n            if
(found) throw IllegalArgumentException("Array
contains more than one matching element.")\n            single = element\n            found = true\n        }\n
    }\n    if (!found) throw NoSuchElementException("Array contains no element matching the
predicate.")\n    @Suppress("UNCHECKED_CAST")\n    return single as Long\n}\n\n/**\n * Returns the single
element matching the given [predicate], or throws exception if there is no or more than one matching element.\n

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*/\npublic inline fun FloatArray.single(predicate: (Float) -> Boolean): Float {\n    var single: Float? = null\n    var found = false\n    for (element in this) {\n        if (predicate(element)) {\n            if (found) throw\n                IllegalArgumentException("Array contains more than one matching element.")\n            single = element\n            found = true\n        }\n    }\n    if (!found) throw NoSuchElementException("Array contains no element matching\n        the predicate.")\n    @Suppress("UNCHECKED_CAST")\n    return single as Float\n}\n\n/**\n * Returns the\n        single element matching the given [predicate], or throws exception if there is no or more than one matching\n        element.\n */\n\npublic inline fun DoubleArray.single(predicate: (Double) -> Boolean): Double {\n    var single:\n        Double? = null\n    var found = false\n    for (element in this) {\n        if (predicate(element)) {\n            if (found)\n                throw IllegalArgumentException("Array contains more than one matching element.")\n            single = element\n            found = true\n        }\n    }\n    if (!found) throw NoSuchElementException("Array contains no element\n        matching the predicate.")\n    @Suppress("UNCHECKED_CAST")\n    return single as Double\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one\n        matching element.\n */\n\npublic inline fun BooleanArray.single(predicate: (Boolean) -> Boolean): Boolean {\n    var\n        single: Boolean? = null\n    var found = false\n    for (element in this) {\n        if (predicate(element)) {\n            if\n                (found) throw IllegalArgumentException("Array contains more than one\n                    matching element.")\n            single = element\n            found = true\n        }\n    }\n    if (!found) throw\n        NoSuchElementException("Array contains no element matching the predicate.")\n    @Suppress("UNCHECKED_CAST")\n    return single as Boolean\n}\n\n/**\n * Returns the single element\n        matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\n\npublic inline fun CharArray.single(predicate: (Char) -> Boolean): Char {\n    var single: Char? = null\n    var found =\n        false\n    for (element in this) {\n        if (predicate(element)) {\n            if (found) throw\n                IllegalArgumentException("Array contains more than one matching element.")\n            single = element\n            found = true\n        }\n    }\n    if (!found) throw\n        NoSuchElementException("Array contains no element matching\n        the predicate.")\n    @Suppress("UNCHECKED_CAST")\n    return single as Char\n}\n\n/**\n * Returns single\n        element, or `null` if the\n        array is empty or has more than one element.\n */\n\npublic fun <T> Array<out T>.singleOrNull(): T? {\n    return if\n        (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one\n        element.\n */\n\npublic fun ByteArray.singleOrNull(): Byte? {\n    return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\n\npublic fun\n        ShortArray.singleOrNull(): Short? {\n    return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element,\n        or `null` if the array is empty or has more than one element.\n */\n\npublic fun IntArray.singleOrNull(): Int? {\n    return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more\n        than one element.\n */\n\npublic fun LongArray.singleOrNull(): Long? {\n    return if (size == 1) this[0] else\n        null\n}\n\n/**\n * Returns single element, or `null` if the array is empty\n        or has more than one element.\n */\n\npublic fun FloatArray.singleOrNull(): Float? {\n    return if (size == 1) this[0]\n        else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\n\npublic fun\n        DoubleArray.singleOrNull(): Double? {\n    return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\n\npublic fun\n        BooleanArray.singleOrNull(): Boolean? {\n    return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single\n        element, or `null` if the array is empty or has more than one element.\n */\n\npublic fun CharArray.singleOrNull():\n        Char? {\n    return if (size == 1) this[0] else null\n}\n\n/**\n * Returns the single element matching the given\n        [predicate], or `null` if element was not found or more than one element was found.\n */\n\npublic inline fun <T>\n        Array<out T>.singleOrNull(predicate: (T) -> Boolean): T? {\n    var single: T? = null\n    var found\n        = false\n    for (element in this) {\n        if (predicate(element)) {\n            if (found) return null\n            single =\n                element\n            found = true\n        }\n    }\n    if (!found) return null\n    return single\n}\n\n/**\n * Returns the\n        single element matching the given [predicate], or `null` if element was not found or more than one element was\n        found.\n */\n\npublic inline fun ByteArray.singleOrNull(predicate: (Byte) -> Boolean): Byte? {\n    var single: Byte?\n        = null\n    var found = false\n    for (element in this) {\n        if (predicate(element)) {\n            if (found) return

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null\n      single = element\n      found = true\n    }\n  }\n  if (!found) return null\n  return
single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or
more than one element was found.\n */\npublic inline fun ShortArray.singleOrNull(predicate: (Short) -> Boolean):
Short? {\n  var single: Short? = null\n
  var found = false\n  for (element in this) {\n    if (predicate(element)) {\n      if (found) return null\n
single = element\n      found = true\n    }\n  }\n  if (!found) return null\n  return single\n}\n\n/**\n *
Returns the single element matching the given [predicate], or `null` if element was not found or more than one
element was found.\n */\npublic inline fun IntArray.singleOrNull(predicate: (Int) -> Boolean): Int? {\n  var single:
Int? = null\n  var found = false\n  for (element in this) {\n    if (predicate(element)) {\n      if (found) return
null\n
single = element\n      found = true\n    }\n  }\n  if (!found) return null\n  return
single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or
more than one element was found.\n */\npublic inline fun LongArray.singleOrNull(predicate: (Long) -> Boolean):
Long? {\n  var single: Long? =
null\n  var found = false\n  for (element in this) {\n    if (predicate(element)) {\n      if (found) return null\n
single = element\n      found = true\n    }\n  }\n  if (!found) return null\n  return
single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or
more than one element was found.\n */\npublic inline fun FloatArray.singleOrNull(predicate: (Float) -> Boolean): Float? {\n  var
single: Float? = null\n  var found = false\n  for (element in this) {\n    if (predicate(element)) {\n      if
(found) return null\n
single = element\n      found = true\n    }\n  }\n  if (!found) return null\n  return
single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or
more than one element was found.\n */\npublic inline fun DoubleArray.singleOrNull(predicate: (Double) ->
Boolean): Double? {\n
var single: Double? = null\n  var found = false\n  for (element in this) {\n    if (predicate(element)) {\n      if
(found) return null\n
single = element\n      found = true\n    }\n  }\n  if (!found) return null\n  return
single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or
more than one element was found.\n */\npublic inline fun BooleanArray.singleOrNull(predicate: (Boolean) ->
Boolean): Boolean? {\n  var single: Boolean? = null\n  var found = false\n  for (element in this) {\n    if
(predicate(element)) {\n      if (found) return null\n
single = element\n      found = true\n    }\n  }\n  if (!found) return null\n  return
single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or
more than one element was found.\n */\npublic inline fun
CharArray.singleOrNull(predicate: (Char) ->
Boolean): Char? {\n  var single: Char? = null\n  var found = false\n  for (element in this) {\n    if
(predicate(element)) {\n      if (found) return null\n
single = element\n      found = true\n    }\n  }\n  if (!found) return null\n  return
single\n}\n\n/**\n * Returns a list containing all elements except first [n]
elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n */\npublic fun <T> Array<out T>.drop(n: Int): List<T> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n */\npublic fun ByteArray.drop(n: Int): List<Byte> {\n
require(n >= 0) { \"Requested element count
$n is less than zero.\" }\n  return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all
elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n */\npublic fun ShortArray.drop(n: Int): List<Short> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n */\npublic fun IntArray.drop(n: Int): List<Int> {\n

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{\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun BooleanArray.dropLast(n: Int):
List<Boolean> {\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing
all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n *
@sample samples.collections.Collections.Transformations.drop\n *\npublic fun CharArray.dropLast(n: Int):
List<Char> {\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given
[predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n *\npublic inline fun <T>
Array<out T>.dropLastWhile(predicate: (T) -> Boolean): List<T> {\n  for (index in lastIndex downTo 0) {\n    if
(!predicate(this[index])) {\n      return take(index + 1)\n    }\n  }\n  return emptyList()\n}\n\n/**\n * Returns
a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic inline fun ByteArray.dropLastWhile(predicate:
(Byte) -> Boolean): List<Byte> {\n  for (index in lastIndex downTo 0) {\n    if (!predicate(this[index])) {\n
  return take(index + 1)\n    }\n  }\n  return emptyList()\n}\n\n/**\n * Returns a list containing all elements
except last elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic inline fun ShortArray.dropLastWhile(predicate:
(Short) -> Boolean): List<Short> {\n  for (index in lastIndex downTo 0) {\n    if (!predicate(this[index])) {\n
  return take(index + 1)\n    }\n  }\n  return emptyList()\n}\n\n/**\n * Returns a list containing all elements
except last elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic inline fun IntArray.dropLastWhile(predicate:
(Int) -> Boolean): List<Int> {\n  for (index in lastIndex downTo 0) {\n    if (!predicate(this[index]))
{\n      return take(index + 1)\n    }\n  }\n  return emptyList()\n}\n\n/**\n * Returns a list containing all
elements except last elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic inline fun LongArray.dropLastWhile(predicate:
(Long) -> Boolean): List<Long> {\n  for (index in lastIndex downTo 0) {\n    if (!predicate(this[index])) {\n
  return take(index + 1)\n    }\n  }\n  return emptyList()\n}\n\n/**\n * Returns a list containing all elements
except last elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic inline fun FloatArray.dropLastWhile(predicate:
(Float) -> Boolean): List<Float> {\n  for (index in lastIndex downTo 0) {\n    if (!predicate(this[index])) {\n
  return take(index + 1)\n    }\n  }\n  return emptyList()\n}\n\n/**\n * Returns a list containing all elements
except
last elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic inline fun DoubleArray.dropLastWhile(predicate:
(Double) -> Boolean): List<Double> {\n  for (index in lastIndex downTo 0) {\n    if (!predicate(this[index])) {\n
  return take(index + 1)\n    }\n  }\n  return emptyList()\n}\n\n/**\n * Returns a list containing all elements
except last elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic inline fun
BooleanArray.dropLastWhile(predicate: (Boolean) -> Boolean): List<Boolean> {\n  for (index in lastIndex
downTo 0) {\n    if (!predicate(this[index])) {\n      return take(index + 1)\n    }\n  }\n  return
emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given
[predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n
*\npublic inline fun
CharArray.dropLastWhile(predicate: (Char) -> Boolean): List<Char> {\n  for (index in
lastIndex downTo 0) {\n    if (!predicate(this[index])) {\n      return take(index + 1)\n    }\n  }\n  return
emptyList()\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given
[predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n *\npublic inline fun <T>

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Array<out T>.dropWhile(predicate: (T) -> Boolean): List<T> {\n  var yielding = false\n  val list =
ArrayList<T>()\n  for (item in this)\n    if (yielding)\n      list.add(item)\n    else if (!predicate(item)) {\n
  list.add(item)\n    yielding = true\n  }\n  return list\n}\n\n/**\n * Returns a list containing all elements
except first elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n */\npublic inline fun ByteArray.dropWhile(predicate:
(Byte) -> Boolean): List<Byte> {\n  var yielding = false\n  val list = ArrayList<Byte>()\n  for (item in this)\n
if (yielding)\n  list.add(item)\n  else if (!predicate(item)) {\n    list.add(item)\n    yielding =
true\n  }\n  return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the
given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun
ShortArray.dropWhile(predicate: (Short) -> Boolean): List<Short> {\n  var yielding = false\n  val list =
ArrayList<Short>()\n  for (item in this)\n    if (yielding)\n      list.add(item)\n    else if (!predicate(item))
{\n    list.add(item)\n    yielding = true\n  }\n  return list\n}\n\n/**\n * Returns a list containing all
elements except first elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n */\npublic inline fun IntArray.dropWhile(predicate: (Int) -> Boolean): List<Int> {\n  var yielding = false\n  val
list = ArrayList<Int>()\n  for (item in this)\n    if (yielding)\n      list.add(item)\n    else if (!predicate(item))
{\n    list.add(item)\n    yielding = true\n  }\n  return list\n}\n\n/**\n * Returns a list containing all
elements except first elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n */\npublic inline fun LongArray.dropWhile(predicate:
(Long) -> Boolean): List<Long> {\n  var yielding = false\n  val list = ArrayList<Long>()\n  for (item in this)\n
if (yielding)\n  list.add(item)\n  else if (!predicate(item)) {\n    list.add(item)\n    yielding =
true\n  }\n  return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the
given [predicate].\n * \n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun
FloatArray.dropWhile(predicate: (Float) -> Boolean): List<Float> {\n  var yielding = false\n  val list =
ArrayList<Float>()\n  for (item in this)\n    if (yielding)\n      list.add(item)\n    else if (!predicate(item))
{\n    list.add(item)\n    yielding = true\n  }\n  return list\n}\n\n/**\n * Returns a list containing all
elements except first elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n */\npublic inline fun DoubleArray.dropWhile(predicate:
(Double) -> Boolean): List<Double> {\n  var yielding = false\n  val list = ArrayList<Double>()\n  for (item in
this)\n    if (yielding)\n      list.add(item)\n    else if (!predicate(item)) {\n    list.add(item)\n
yielding = true\n  }\n  return list\n}\n\n/**\n * Returns a list containing all elements
except first elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n */\npublic inline fun BooleanArray.dropWhile(predicate:
(Boolean) -> Boolean): List<Boolean> {\n  var yielding = false\n  val list = ArrayList<Boolean>()\n  for (item in
this)\n    if (yielding)\n      list.add(item)\n    else if (!predicate(item)) {\n    list.add(item)\n
yielding = true\n  }\n  return list\n}\n\n/**\n * Returns a list containing all elements except first elements that
satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic
inline fun CharArray.dropWhile(predicate: (Char) -> Boolean): List<Char> {\n  var yielding = false\n  val list =
ArrayList<Char>()\n  for (item in this)\n    if (yielding)\n      list.add(item)\n    else if (!predicate(item)) {\n
  list.add(item)\n    yielding = true\n  }\n  return list\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n */\npublic inline fun <T> Array<out T>.filter(predicate: (T) ->
Boolean): List<T> {\n  return filterTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Returns a list containing only
elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic
inline fun ByteArray.filter(predicate: (Byte) -> Boolean): List<Byte> {\n  return
filterTo(ArrayList<Byte>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given
[predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun

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ShortArray.filter(predicate: (Short) -> Boolean): List<Short> {\n  return filterTo(ArrayList<Short>(),
predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n
*/\npublic inline fun IntArray.filter(predicate: (Int) -> Boolean): List<Int> {\n  return filterTo(ArrayList<Int>(),
predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n
*/\npublic inline fun LongArray.filter(predicate: (Long) ->
Boolean): List<Long> {\n  return filterTo(ArrayList<Long>(), predicate)\n}\n\n/**\n * Returns a list containing
only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n
*/\npublic inline fun FloatArray.filter(predicate: (Float) -> Boolean): List<Float> {\n  return
filterTo(ArrayList<Float>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given
[predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n
*/\npublic inline fun
DoubleArray.filter(predicate: (Double) -> Boolean): List<Double> {\n  return
filterTo(ArrayList<Double>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given
[predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n
*/\npublic inline fun
BooleanArray.filter(predicate: (Boolean) -> Boolean): List<Boolean> {\n  return filterTo(ArrayList<Boolean>(),
predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n
*/\npublic inline fun CharArray.filter(predicate: (Char) ->
Boolean): List<Char> {\n  return filterTo(ArrayList<Char>(), predicate)\n}\n\n/**\n * Returns a list containing
only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element
and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexed\n
*/\npublic inline fun <T> Array<out
T>.filterIndexed(predicate:
(index: Int, T) -> Boolean): List<T> {\n  return filterIndexedTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Returns
a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index
of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n *
@sample samples.collections.Collections.Filtering.filterIndexed\n
*/\npublic inline fun
ByteArray.filterIndexed(predicate: (index: Int, Byte) -> Boolean): List<Byte> {\n  return
filterIndexedTo(ArrayList<Byte>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the
given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n *
and returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexed\n
*/\npublic inline fun ShortArray.filterIndexed(predicate:
(index: Int, Short) -> Boolean): List<Short>
{\n  return filterIndexedTo(ArrayList<Short>(), predicate)\n}\n\n/**\n * Returns a list containing only elements
matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element
itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexed\n
*/\npublic inline fun IntArray.filterIndexed(predicate:
(index: Int, Int) -> Boolean): List<Int> {\n  return filterIndexedTo(ArrayList<Int>(), predicate)\n}\n\n/**\n *
Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes
the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n
* \n * @sample samples.collections.Collections.Filtering.filterIndexed\n
*/\npublic inline fun
LongArray.filterIndexed(predicate: (index: Int, Long) -> Boolean): List<Long> {\n  return
filterIndexedTo(ArrayList<Long>(),
predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param
[predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate
evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n
*/\npublic
inline fun FloatArray.filterIndexed(predicate: (index: Int, Float) -> Boolean): List<Float> {\n  return
filterIndexedTo(ArrayList<Float>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the
given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n *
and

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returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexed\n * \n\npublic inline fun DoubleArray.filterIndexed(predicate:
(index: Int, Double) -> Boolean): List<Double> {\n    return filterIndexedTo(ArrayList<Double>(),
predicate)\n}\n\n/**\n
 * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes
the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n
 * @sample samples.collections.Collections.Filtering.filterIndexed\n * \n\npublic inline fun
BooleanArray.filterIndexed(predicate: (index: Int, Boolean) -> Boolean): List<Boolean> {\n    return
filterIndexedTo(ArrayList<Boolean>(), predicate)\n}\n\n/**\n
 * Returns a list containing only elements matching
the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n *
and returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexed\n * \n\npublic inline fun CharArray.filterIndexed(predicate:
(index: Int, Char) -> Boolean): List<Char> {\n    return filterIndexedTo(ArrayList<Char>(), predicate)\n}\n\n/**\n
 * Appends all elements matching
the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element
and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexedTo\n * \n\npublic inline fun <T, C : MutableCollection<in T>>
Array<out T>.filterIndexedTo(destination: C, predicate: (index: Int, T) -> Boolean): C {\n    forEachIndexed {
index, element ->\n        if (predicate(index, element)) destination.add(element)\n    }\n    return
destination\n}\n\n/**\n
 * Appends all elements matching the given [predicate] to the given [destination].\n *
@param [predicate] function that takes the index of an element and the element itself\n * and returns the result of
predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n
 * \n\npublic inline fun <C : MutableCollection<in Byte>> ByteArray.filterIndexedTo(destination: C, predicate:
(index: Int, Byte) -> Boolean): C {\n    forEachIndexed { index, element ->\n        if (predicate(index, element))
destination.add(element)\n    }\n    return destination\n}\n\n/**\n
 * Appends all elements matching the given
[predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the
element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexedTo\n * \n\npublic inline fun <C : MutableCollection<in Short>>
ShortArray.filterIndexedTo(destination: C, predicate: (index: Int, Short) -> Boolean): C {\n    forEachIndexed {
index, element ->\n        if (predicate(index, element)) destination.add(element)\n    }\n    return
destination\n}\n\n/**\n
 * Appends all elements matching the given [predicate] to the given [destination].\n *
@param [predicate] function that takes the index of an element and the element itself\n * and returns the result of
predicate
evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n * \n\npublic
inline fun <C : MutableCollection<in Int>> IntArray.filterIndexedTo(destination: C, predicate: (index: Int, Int) ->
Boolean): C {\n    forEachIndexed { index, element ->\n        if (predicate(index, element))
destination.add(element)\n    }\n    return destination\n}\n\n/**\n
 * Appends all elements matching the given
[predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the
element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexedTo\n * \n\npublic inline fun <C : MutableCollection<in Long>>
LongArray.filterIndexedTo(destination: C, predicate: (index: Int, Long) -> Boolean): C {\n    forEachIndexed {
index, element ->\n        if (predicate(index, element)) destination.add(element)\n    }\n    return
destination\n}\n\n/**\n
 * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function
that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the
element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n * \n\npublic inline fun <C :
MutableCollection<in Float>> FloatArray.filterIndexedTo(destination: C, predicate: (index: Int, Float) -> Boolean):
C {\n    forEachIndexed { index, element ->\n        if (predicate(index, element)) destination.add(element)\n    }\n
}

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return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n *
@param [predicate] function that takes the index of an element and the element itself\n * and returns the result of
predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n *
*\npublic inline fun <C : MutableCollection<in Double>> DoubleArray.filterIndexedTo(destination:
C, predicate: (index: Int, Double) -> Boolean): C {\n    forEachIndexed { index, element ->\n        if
(predicate(index, element)) destination.add(element)\n    }\n    return destination\n}\n\n/**\n * Appends all elements
matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an
element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexedTo\n *
*\npublic inline fun <C : MutableCollection<in Boolean>> BooleanArray.filterIndexedTo(destination: C, predicate: (index: Int, Boolean) -> Boolean): C {\n
    forEachIndexed { index, element ->\n        if (predicate(index, element)) destination.add(element)\n    }\n    return
destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n *
@param [predicate] function that takes the index of an element and
the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexedTo\n *
*\npublic inline fun <C : MutableCollection<in Char>>
CharArray.filterIndexedTo(destination: C, predicate: (index: Int, Char) -> Boolean): C {\n    forEachIndexed {
index, element ->\n        if (predicate(index, element)) destination.add(element)\n    }\n    return
destination\n}\n\n/**\n * Returns a list containing all elements that are instances of specified type parameter R.\n *
\n * @sample samples.collections.Collections.Filtering.filterIsInstance\n *
*\npublic inline fun <reified R>
Array<*>.filterIsInstance(): List<@kotlin.internal.NoInfer R> {\n    return
filterIsInstanceTo(ArrayList<R>())\n}\n\n/**\n * Appends all elements that are instances of specified type
parameter R to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterIsInstanceTo\n *
*\npublic inline fun <reified R, C
: MutableCollection<in R>> Array<*>.filterIsInstanceTo(destination: C): C {\n    for (element in this) if (element is
R) destination.add(element)\n    return destination\n}\n\n/**\n * Returns a list containing all elements not matching
the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n *
*\npublic inline fun <T>
Array<out T>.filterNot(predicate: (T) -> Boolean): List<T> {\n    return filterNotTo(ArrayList<T>(),
predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n *
*\npublic inline fun ByteArray.filterNot(predicate: (Byte) ->
Boolean): List<Byte> {\n    return filterNotTo(ArrayList<Byte>(), predicate)\n}\n\n/**\n * Returns a list containing
all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n *
*\npublic inline fun ShortArray.filterNot(predicate: (Short) -> Boolean): List<Short>
{\n    return filterNotTo(ArrayList<Short>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not
matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n *
*\npublic inline
fun IntArray.filterNot(predicate: (Int) -> Boolean): List<Int> {\n    return filterNotTo(ArrayList<Int>(),
predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n *
*\npublic inline fun LongArray.filterNot(predicate: (Long) ->
Boolean): List<Long> {\n    return filterNotTo(ArrayList<Long>(), predicate)\n}\n\n/**\n * Returns a list
containing all elements not matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n *
*\npublic inline fun FloatArray.filterNot(predicate: (Float) ->
Boolean): List<Float> {\n    return filterNotTo(ArrayList<Float>(), predicate)\n}\n\n/**\n * Returns a list
containing all elements
not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n *
*\npublic
inline fun DoubleArray.filterNot(predicate: (Double) -> Boolean): List<Double> {\n    return
filterNotTo(ArrayList<Double>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the
given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n *
*\npublic inline fun
BooleanArray.filterNot(predicate: (Boolean) -> Boolean): List<Boolean> {\n    return
filterNotTo(ArrayList<Boolean>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the

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given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n *^\npublic inline fun
CharArray.filterNot(predicate: (Char) -> Boolean): List<Char> {\n    return filterNotTo(ArrayList<Char>(),
predicate)\n}\n\n/**\n * Returns a list containing all elements that are not `null`.\n * \n * @sample
samples.collections.Collections.Filtering.filterNotNull\n
*^\npublic fun <T : Any> Array<out T?>.filterNotNull(): List<T> {\n    return
filterNotNullTo(ArrayList<T>())\n}\n\n/**\n * Appends all elements that are not `null` to the given [destination].\n
* \n * @sample samples.collections.Collections.Filtering.filterNotNullTo\n *^\npublic fun <C :
MutableCollection<in T>, T : Any> Array<out T?>.filterNotNullTo(destination: C): C {\n    for (element in this) if
(element != null) destination.add(element)\n    return destination\n}\n\n/**\n * Appends all elements not matching
the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n
*^\npublic inline fun <T, C : MutableCollection<in T>> Array<out T>.filterNotTo(destination: C, predicate: (T) ->
Boolean): C {\n    for (element in this) if (!predicate(element)) destination.add(element)\n    return
destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n *
@sample samples.collections.Collections.Filtering.filterTo\n
*^\npublic inline fun <C : MutableCollection<in Byte>> ByteArray.filterNotTo(destination: C, predicate: (Byte) ->
Boolean): C {\n    for (element in this) if (!predicate(element)) destination.add(element)\n    return
destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n *
@sample samples.collections.Collections.Filtering.filterTo\n *^\npublic inline fun <C : MutableCollection<in
Short>> ShortArray.filterNotTo(destination: C, predicate: (Short) -> Boolean): C {\n    for (element in this) if
(!predicate(element)) destination.add(element)\n    return destination\n}\n\n/**\n * Appends all elements not
matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n *^\npublic inline fun <C : MutableCollection<in Int>>
IntArray.filterNotTo(destination: C, predicate: (Int) -> Boolean): C {\n    for (element in this)
if (!predicate(element)) destination.add(element)\n    return destination\n}\n\n/**\n * Appends all elements not
matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n *^\npublic inline fun <C : MutableCollection<in Long>>
LongArray.filterNotTo(destination: C, predicate: (Long) -> Boolean): C {\n    for (element in this) if
(!predicate(element)) destination.add(element)\n    return destination\n}\n\n/**\n * Appends all elements not
matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n *^\npublic inline fun <C : MutableCollection<in Float>>
FloatArray.filterNotTo(destination: C, predicate: (Float) -> Boolean): C {\n    for (element in this) if
(!predicate(element)) destination.add(element)\n    return destination\n}\n\n/**\n * Appends all elements not
matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n
*^\npublic inline fun <C : MutableCollection<in Double>> DoubleArray.filterNotTo(destination: C, predicate:
(Double) -> Boolean): C {\n    for (element in this) if (!predicate(element)) destination.add(element)\n    return
destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n *
@sample samples.collections.Collections.Filtering.filterTo\n *^\npublic inline fun <C : MutableCollection<in
Boolean>> BooleanArray.filterNotTo(destination: C, predicate: (Boolean) -> Boolean): C {\n    for (element in this)
if (!predicate(element)) destination.add(element)\n    return destination\n}\n\n/**\n * Appends all elements not
matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n *^\npublic inline fun <C : MutableCollection<in Char>>
CharArray.filterNotTo(destination: C, predicate: (Char) -> Boolean): C {\n    for (element in this)
if (!predicate(element)) destination.add(element)\n    return destination\n}\n\n/**\n * Appends all elements
matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n *^\npublic inline fun <T, C : MutableCollection<in T>>
Array<out T>.filterTo(destination: C, predicate: (T) -> Boolean): C {\n    for (element in this) if
(predicate(element)) destination.add(element)\n    return destination\n}\n\n/**\n * Appends all elements matching

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the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n
*\npublic inline fun <C : MutableCollection<in Byte>> ByteArray.filterTo(destination: C, predicate: (Byte) ->
Boolean): C {\n for (element in this) if (predicate(element)) destination.add(element)\n return
destination}\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n *
@sample samples.collections.Collections.Filtering.filterTo\n
*\npublic inline fun <C : MutableCollection<in Short>> ShortArray.filterTo(destination: C, predicate: (Short) ->
Boolean): C {\n for (element in this) if (predicate(element)) destination.add(element)\n return
destination}\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n *
@sample samples.collections.Collections.Filtering.filterTo\n
*\npublic inline fun <C : MutableCollection<in Int>> IntArray.filterTo(destination: C, predicate: (Int) -> Boolean): C {\n for (element in this) if (predicate(element))
destination.add(element)\n return destination}\n}\n\n/**\n * Appends all elements matching the given [predicate] to
the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n
*\npublic inline fun
<C : MutableCollection<in Long>> LongArray.filterTo(destination: C, predicate: (Long) -> Boolean): C {\n for
(element in this) if (predicate(element)) destination.add(element)\n
return destination}\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n
*\n * @sample samples.collections.Collections.Filtering.filterTo\n
*\npublic inline fun <C : MutableCollection<in Float>> FloatArray.filterTo(destination: C, predicate: (Float) -> Boolean): C {\n for (element in this) if
(predicate(element)) destination.add(element)\n return destination}\n}\n\n/**\n * Appends all elements matching
the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n
*\npublic inline fun <C : MutableCollection<in Double>> DoubleArray.filterTo(destination: C, predicate: (Double)
-> Boolean): C {\n for (element in this) if (predicate(element)) destination.add(element)\n return
destination}\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n *
@sample samples.collections.Collections.Filtering.filterTo\n
*\npublic inline fun <C :
MutableCollection<in Boolean>> BooleanArray.filterTo(destination: C, predicate: (Boolean) -> Boolean): C {\n
for (element in this) if (predicate(element)) destination.add(element)\n return destination}\n}\n\n/**\n * Appends
all elements matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n
*\npublic inline fun <C : MutableCollection<in Char>> CharArray.filterTo(destination: C, predicate: (Char) -> Boolean): C {\n for (element in this) if
(predicate(element)) destination.add(element)\n return destination}\n}\n\n/**\n * Returns a list containing elements
at indices in the specified [indices] range.\n * \n *\npublic fun <T> Array<out T>.slice(indices: IntRange): List<T> {\n
if (indices.isEmpty()) return listOf()\n return copyOfRange(indices.start, indices.endInclusive +
1).asList()\n}\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n * \n *\npublic
fun ByteArray.slice(indices:
IntRange): List<Byte> {\n if (indices.isEmpty()) return listOf()\n return copyOfRange(indices.start,
indices.endInclusive + 1).asList()\n}\n}\n\n/**\n * Returns a list containing elements at indices in the specified
[indices] range.\n * \n *\npublic fun ShortArray.slice(indices: IntRange): List<Short> {\n if (indices.isEmpty()) return
listOf()\n return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n}\n\n/**\n * Returns a list
containing elements at indices in the specified [indices] range.\n * \n *\npublic fun IntArray.slice(indices: IntRange):
List<Int> {\n if (indices.isEmpty()) return listOf()\n return copyOfRange(indices.start, indices.endInclusive +
1).asList()\n}\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n * \n *\npublic
fun LongArray.slice(indices: IntRange): List<Long> {\n if (indices.isEmpty()) return listOf()\n return
copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n}\n\n/**\n * Returns a list containing elements
at indices in the specified [indices] range.\n * \n *\npublic fun
FloatArray.slice(indices: IntRange): List<Float> {\n if (indices.isEmpty()) return listOf()\n return
copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n}\n\n/**\n * Returns a list containing elements
at indices in the specified [indices] range.\n * \n *\npublic fun DoubleArray.slice(indices: IntRange): List<Double> {\n
if (indices.isEmpty()) return listOf()\n return copyOfRange(indices.start, indices.endInclusive +
1).asList()\n}\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n * \n *\npublic

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fun BooleanArray.slice(indices: IntRange): List<Boolean> {\n  if (indices.isEmpty()) return listOf()\n  return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun CharArray.slice(indices: IntRange): List<Char> {\n  if (indices.isEmpty()) return listOf()\n  return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun <T> Array<out T>.slice(indices: Iterable<Int>): List<T> {\n  val size = indices.collectionSizeOrDefault(10)\n  if (size == 0) return emptyList()\n  val list = ArrayList<T>(size)\n  for (index in indices) {\n    list.add(get(index))\n  }\n  return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun ByteArray.slice(indices: Iterable<Int>): List<Byte> {\n  val size = indices.collectionSizeOrDefault(10)\n  if (size == 0) return emptyList()\n  val list = ArrayList<Byte>(size)\n  for (index in indices) {\n    list.add(get(index))\n  }\n  return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun ShortArray.slice(indices: Iterable<Int>): List<Short> {\n  val size = indices.collectionSizeOrDefault(10)\n  if (size == 0) return emptyList()\n  val list = ArrayList<Short>(size)\n  for (index in indices) {\n    list.add(get(index))\n  }\n  return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun IntArray.slice(indices: Iterable<Int>): List<Int> {\n  val size = indices.collectionSizeOrDefault(10)\n  if (size == 0) return emptyList()\n  val list = ArrayList<Int>(size)\n  for (index in indices) {\n    list.add(get(index))\n  }\n  return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun LongArray.slice(indices: Iterable<Int>): List<Long> {\n  val size = indices.collectionSizeOrDefault(10)\n  if (size == 0) return emptyList()\n  val list = ArrayList<Long>(size)\n  for (index in indices) {\n    list.add(get(index))\n  }\n  return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun FloatArray.slice(indices: Iterable<Int>): List<Float> {\n  val size = indices.collectionSizeOrDefault(10)\n  if (size == 0) return emptyList()\n  val list = ArrayList<Float>(size)\n  for (index in indices) {\n    list.add(get(index))\n  }\n  return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun DoubleArray.slice(indices: Iterable<Int>): List<Double> {\n  val size = indices.collectionSizeOrDefault(10)\n  if (size == 0) return emptyList()\n  val list = ArrayList<Double>(size)\n  for (index in indices) {\n    list.add(get(index))\n  }\n  return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun BooleanArray.slice(indices: Iterable<Int>): List<Boolean> {\n  val size = indices.collectionSizeOrDefault(10)\n  if (size == 0) return emptyList()\n  val list = ArrayList<Boolean>(size)\n  for (index in indices) {\n    list.add(get(index))\n  }\n  return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun CharArray.slice(indices: Iterable<Int>): List<Char> {\n  val size = indices.collectionSizeOrDefault(10)\n  if (size == 0) return emptyList()\n  val list = ArrayList<Char>(size)\n  for (index in indices) {\n    list.add(get(index))\n  }\n  return list\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun <T> Array<T>.sliceArray(indices: Collection<Int>): Array<T> {\n  val result = arrayOfNulls(this, indices.size)\n  var targetIndex = 0\n  for (sourceIndex in indices) {\n    result[targetIndex++] = this[sourceIndex]\n  }\n  return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun ByteArray.sliceArray(indices: Collection<Int>): ByteArray {\n  val result = ByteArray(indices.size)\n  var targetIndex = 0\n  for (sourceIndex in indices) {\n    result[targetIndex++] = this[sourceIndex]\n  }\n  return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun ShortArray.sliceArray(indices: Collection<Int>): ShortArray {\n  val result = ShortArray(indices.size)\n  var targetIndex = 0\n  for (sourceIndex in indices) {\n    result[targetIndex++] = this[sourceIndex]\n  }\n  return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun IntArray.sliceArray(indices: Collection<Int>): IntArray {\n  val result = IntArray(indices.size)\n  var targetIndex = 0\n  for (sourceIndex in indices) {\n    result[targetIndex++] = this[sourceIndex]\n  }\n  return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun LongArray.sliceArray(indices: Collection<Int>): LongArray {\n  val result = LongArray(indices.size)\n  var targetIndex = 0\n  for (sourceIndex in indices)

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    { \n    result[targetIndex++] = this[sourceIndex]\n    } \n    return result\n}\n\n/**\n * Returns an array containing
elements of this array at specified [indices].\n */\npublic fun FloatArray.sliceArray(indices: Collection<Int>):
FloatArray { \n    val result = FloatArray(indices.size)\n    var targetIndex = 0\n    for (sourceIndex in indices) { \n
result[targetIndex++] = this[sourceIndex]\n    } \n    return result\n}\n\n/**\n * Returns an array containing elements
of this array at specified [indices].\n */\npublic fun DoubleArray.sliceArray(indices: Collection<Int>): DoubleArray
{ \n    val result = DoubleArray(indices.size)\n    var targetIndex = 0\n    for (sourceIndex in indices) { \n
result[targetIndex++] = this[sourceIndex]\n    } \n    return result\n}\n\n/**\n * Returns an array containing elements
of this array at specified [indices].\n */\npublic fun BooleanArray.sliceArray(indices: Collection<Int>):
BooleanArray { \n    val result = BooleanArray(indices.size)\n
    var targetIndex = 0\n    for (sourceIndex in indices) { \n    result[targetIndex++] = this[sourceIndex]\n    } \n
return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun
CharArray.sliceArray(indices: Collection<Int>): CharArray { \n    val result = CharArray(indices.size)\n    var
targetIndex = 0\n    for (sourceIndex in indices) { \n    result[targetIndex++] = this[sourceIndex]\n    } \n    return
result\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun
<T> Array<T>.sliceArray(indices: IntRange): Array<T> { \n    if (indices.isEmpty()) return copyOfRange(0, 0)\n
return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at
indices in the specified [indices] range.\n */\npublic fun ByteArray.sliceArray(indices: IntRange): ByteArray { \n    if
(indices.isEmpty()) return ByteArray(0)\n    return
copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices
in the specified [indices] range.\n */\npublic fun ShortArray.sliceArray(indices: IntRange): ShortArray { \n    if
(indices.isEmpty()) return ShortArray(0)\n    return copyOfRange(indices.start, indices.endInclusive +
1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun
IntArray.sliceArray(indices: IntRange): IntArray { \n    if (indices.isEmpty()) return IntArray(0)\n    return
copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices
in the specified [indices] range.\n */\npublic fun LongArray.sliceArray(indices: IntRange): LongArray { \n    if
(indices.isEmpty()) return LongArray(0)\n    return copyOfRange(indices.start, indices.endInclusive +
1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic
fun FloatArray.sliceArray(indices: IntRange): FloatArray { \n    if (indices.isEmpty()) return FloatArray(0)\n
return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at
indices in the specified [indices] range.\n */\npublic fun DoubleArray.sliceArray(indices: IntRange): DoubleArray
{ \n    if (indices.isEmpty()) return DoubleArray(0)\n    return copyOfRange(indices.start, indices.endInclusive +
1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun
BooleanArray.sliceArray(indices: IntRange): BooleanArray { \n    if (indices.isEmpty()) return BooleanArray(0)\n
return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at
indices in the specified [indices] range.\n */\npublic fun CharArray.sliceArray(indices: IntRange): CharArray { \n
if (indices.isEmpty()) return CharArray(0)\n    return copyOfRange(indices.start, indices.endInclusive
+ 1)\n}\n\n/**\n * Returns a list containing first [n] elements.\n */\n * @throws IllegalArgumentException if [n] is
negative.\n */\n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun <T> Array<out
T>.take(n: Int): List<T> { \n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0)
return emptyList()\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[0])\n    var count = 0\n    val list
= ArrayList<T>(n)\n    for (item in this) { \n        list.add(item)\n        if (++count == n)\n            break\n    }\n
return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n */\n * @throws IllegalArgumentException if
[n] is negative.\n */\n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun
ByteArray.take(n: Int): List<Byte> { \n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if
(n == 0) return emptyList()\n    if (n
>= size) return toList()\n    if (n == 1) return listOf(this[0])\n    var count = 0\n    val list = ArrayList<Byte>(n)\n
for (item in this) { \n        list.add(item)\n        if (++count == n)\n            break\n    }\n    return list\n}\n\n/**\n *
Returns a list containing first [n] elements.\n */\n * @throws IllegalArgumentException if [n] is negative.\n */\n *

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@sample samples.collections.Collections.Transformations.take\n *\npublic fun ShortArray.take(n: Int):
List<Short> {\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return
emptyList()\n  if (n >= size) return toList()\n  if (n == 1) return listOf(this[0])\n  var count = 0\n  val list =
ArrayList<Short>(n)\n  for (item in this) {\n    list.add(item)\n    if (++count == n)\n      break\n  }\n  return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if
[n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n
*\npublic fun IntArray.take(n: Int): List<Int> {\n  require(n >= 0) { \"Requested element count $n is less than
zero.\" }\n  if (n == 0) return emptyList()\n  if (n >= size) return toList()\n  if (n == 1) return listOf(this[0])\n
var count = 0\n  val list = ArrayList<Int>(n)\n  for (item in this) {\n    list.add(item)\n    if (++count == n)\n      break\n  }\n  return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws
IllegalArgument\nException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic fun LongArray.take(n: Int): List<Long> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return emptyList()\n  if (n >=
size) return toList()\n  if (n == 1) return listOf(this[0])\n  var count = 0\n  val list = ArrayList<Long>(n)\n
for (item in this) {\n    list.add(item)\n    if (++count == n)\n      break\n  }\n  return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws
IllegalArgument\nException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic fun FloatArray.take(n: Int): List<Float> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return emptyList()\n  if (n >=
size) return toList()\n  if (n == 1) return listOf(this[0])\n  var count = 0\n  val list = ArrayList<Float>(n)\n
for (item in this) {\n    list.add(item)\n    if (++count == n)\n      break\n  }\n  return list\n}\n\n/**\n * Returns
a list containing first [n] elements.\n * \n * @throws
IllegalArgument\nException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic fun DoubleArray.take(n: Int): List<Double> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return emptyList()\n  if (n >=
size) return toList()\n  if (n == 1) return listOf(this[0])\n  var count =
0\n  val list = ArrayList<Double>(n)\n  for (item in this) {\n    list.add(item)\n    if (++count == n)\n      break\n  }\n  return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws
IllegalArgument\nException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic fun BooleanArray.take(n: Int): List<Boolean> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return emptyList()\n  if (n >=
size) return toList()\n  if (n == 1) return listOf(this[0])\n  var count = 0\n  val list = ArrayList<Boolean>(n)\n
for (item in this) {\n    list.add(item)\n    if (++count == n)\n      break\n  }\n  return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws
IllegalArgument\nException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic fun CharArray.take(n: Int): List<Char> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return emptyList()\n  if (n >=
size) return toList()\n  if (n == 1) return listOf(this[0])\n  var count = 0\n  val list = ArrayList<Char>(n)\n
for (item in this) {\n    list.add(item)\n    if (++count == n)\n      break\n  }\n  return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws
IllegalArgument\nException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic fun <T> Array<out T>.takeLast(n: Int): List<T>
{\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return emptyList()\n  val
size = size\n  if (n >= size) return toList()\n  if (n == 1) return listOf(this[size - 1])\n  val list =
ArrayList<T>(n)\n  for (index in size - n until size)\n    list.add(this[index])\n  return list\n}\n\n/**\n * Returns a list containing
last [n] elements.\n * \n * @throws
IllegalArgument\nException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic fun ByteArray.takeLast(n: Int): List<Byte> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return emptyList()\n  val size =
size\n  if (n >= size) return toList()\n  if (n == 1) return listOf(this[size - 1])\n  val list = ArrayList<Byte>(n)\n

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for (index in size - n until size)\n    list.add(this[index])\n    return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun ShortArray.takeLast(n: Int): List<Short> {\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    val size = size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[size - 1])\n    val list = ArrayList<Short>(n)\n    for (index in size - n until size)\n        list.add(this[index])\n    return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun IntArray.takeLast(n: Int): List<Int> {\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    val size = size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[size - 1])\n    val list = ArrayList<Int>(n)\n    for (index in size - n until size)\n        list.add(this[index])\n    return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun LongArray.takeLast(n: Int): List<Long> {\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    val size = size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[size - 1])\n    val list = ArrayList<Long>(n)\n    for (index in size - n until size)\n        list.add(this[index])\n    return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun FloatArray.takeLast(n: Int): List<Float> {\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    val size = size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[size - 1])\n    val list = ArrayList<Float>(n)\n    for (index in size - n until size)\n        list.add(this[index])\n    return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun DoubleArray.takeLast(n: Int): List<Double> {\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    val size = size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[size - 1])\n    val list = ArrayList<Double>(n)\n    for (index in size - n until size)\n        list.add(this[index])\n    return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun BooleanArray.takeLast(n: Int): List<Boolean> {\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    val size = size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[size - 1])\n    val list = ArrayList<Boolean>(n)\n    for (index in size - n until size)\n        list.add(this[index])\n    return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun CharArray.takeLast(n: Int): List<Char> {\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    val size = size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[size - 1])\n    val list = ArrayList<Char>(n)\n    for (index in size - n until size)\n        list.add(this[index])\n    return list\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun <T> Array<out T>.takeLastWhile(predicate: (T) -> Boolean): List<T> {\n    for (index in lastIndex downTo 0) {\n        if (!predicate(this[index]))\n            return drop(index + 1)\n    }\n    return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun ByteArray.takeLastWhile(predicate: (Byte) -> Boolean): List<Byte> {\n    for (index in lastIndex downTo 0) {\n        if (!predicate(this[index]))\n            return drop(index + 1)\n    }\n    return toList()\n}\n\n/**\n * Returns a list containing last elements

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satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n *\npublic
inline fun ShortArray.takeLastWhile(predicate: (Short) -> Boolean): List<Short> {\n  for (index in lastIndex
downTo 0) {\n    if (!predicate(this[index])) {\n      return drop(index + 1)\n    }\n  }\n  return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n *
\n * @sample samples.collections.Collections.Transformations.take\n *\npublic inline fun
IntArray.takeLastWhile(predicate: (Int) -> Boolean): List<Int> {\n  for (index in lastIndex downTo 0) {\n    if
(!predicate(this[index])) {\n      return drop(index + 1)\n    }\n  }\n  return toList()\n}\n\n/**\n * Returns a
list containing last elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic inline fun LongArray.takeLastWhile(predicate:
(Long) -> Boolean): List<Long> {\n  for (index in lastIndex downTo 0) {\n    if (!predicate(this[index])) {\n
  return drop(index + 1)\n    }\n  }\n  return toList()\n}\n\n/**\n * Returns a list containing last elements
satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n *\npublic
inline fun FloatArray.takeLastWhile(predicate: (Float) -> Boolean): List<Float> {\n  for (index in
lastIndex downTo 0) {\n    if (!predicate(this[index])) {\n      return drop(index + 1)\n    }\n  }\n  return
toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic inline fun DoubleArray.takeLastWhile(predicate:
(Double) -> Boolean): List<Double> {\n  for (index in lastIndex downTo 0) {\n    if (!predicate(this[index])) {\n
  return drop(index + 1)\n    }\n  }\n  return toList()\n}\n\n/**\n * Returns a list containing last elements
satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n *\npublic
inline fun BooleanArray.takeLastWhile(predicate: (Boolean) -> Boolean): List<Boolean> {\n  for (index in
lastIndex downTo 0) {\n    if (!predicate(this[index])) {\n      return drop(index + 1)\n    }\n  }\n  return
toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic inline fun CharArray.takeLastWhile(predicate: (Char) -> Boolean): List<Char> {\n  for (index in lastIndex
downTo 0) {\n    if (!predicate(this[index])) {\n      return drop(index + 1)\n    }\n  }\n  return
toList()\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic inline fun <T> Array<out
T>.takeWhile(predicate: (T) -> Boolean): List<T> {\n  val list = ArrayList<T>()\n  for (item in this) {\n    if
(!predicate(item))\n      break\n    list.add(item)\n  }\n  return list\n}\n\n/**\n * Returns a list containing first
elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n *\npublic
inline fun ByteArray.takeWhile(predicate: (Byte) -> Boolean): List<Byte> {\n  val list =
ArrayList<Byte>()\n  for (item in this) {\n    if (!predicate(item))\n      break\n    list.add(item)\n  }\n  return
list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic inline fun ShortArray.takeWhile(predicate:
(Short) -> Boolean): List<Short> {\n  val list = ArrayList<Short>()\n  for (item in this) {\n    if
(!predicate(item))\n      break\n    list.add(item)\n  }\n  return list\n}\n\n/**\n * Returns a list containing first
elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n *\npublic
inline fun IntArray.takeWhile(predicate: (Int) -> Boolean): List<Int> {\n  val list = ArrayList<Int>()\n  for
(item in this)\n    {\n    if (!predicate(item))\n      break\n    list.add(item)\n    }\n  return list\n}\n\n/**\n * Returns a list
containing first elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic inline fun LongArray.takeWhile(predicate:
(Long) -> Boolean): List<Long> {\n  val list = ArrayList<Long>()\n  for (item in this) {\n    if
(!predicate(item))\n      break\n    list.add(item)\n  }\n  return list\n}\n\n/**\n * Returns a list containing first
elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n *\npublic
inline fun FloatArray.takeWhile(predicate: (Float) -> Boolean): List<Float> {\n  val list =
ArrayList<Float>()\n  for (item in this) {\n    if (!predicate(item))\n      break\n    list.add(item)\n  }\n  return
list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n

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* \n * @sample samples.collections.Collections.Transformations.take\n * \n public inline fun
DoubleArray.takeWhile(predicate: (Double) -> Boolean): List<Double> {\n    val list = ArrayList<Double>()\n
for (item in this) {\n        if (!predicate(item))\n            break\n        list.add(item)\n    }\n    return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n * \n public inline fun BooleanArray.takeWhile(predicate:
(Boolean) -> Boolean): List<Boolean> {\n    val list = ArrayList<Boolean>()\n    for (item in this) {\n        if
(!predicate(item))\n            break\n        list.add(item)\n    }\n    return list\n}\n\n/**\n * Returns a list containing first
elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n
* \n public inline fun CharArray.takeWhile(predicate: (Char) -> Boolean): List<Char> {\n    val
list = ArrayList<Char>()\n    for (item in this) {\n        if (!predicate(item))\n            break\n        list.add(item)\n
}\n    return list\n}\n\n/**\n * Reverses elements in the array in-place.\n * \n public fun <T> Array<T>.reverse():
Unit {\n    val midPoint = (size / 2) - 1\n    if (midPoint < 0) return\n    var reverseIndex = lastIndex\n    for (index in
0..midPoint) {\n        val tmp = this[index]\n        this[index] = this[reverseIndex]\n        this[reverseIndex] = tmp\n
        reverseIndex--\n    }\n}\n\n/**\n * Reverses elements in the array in-place.\n * \n public fun ByteArray.reverse():
Unit {\n    val midPoint = (size / 2) - 1\n    if (midPoint < 0) return\n    var reverseIndex = lastIndex\n    for (index in
0..midPoint) {\n        val tmp = this[index]\n        this[index] = this[reverseIndex]\n        this[reverseIndex] = tmp\n
        reverseIndex--\n    }\n}\n\n/**\n * Reverses elements in the array in-place.\n * \n public fun ShortArray.reverse():
Unit {\n
    val midPoint = (size / 2) - 1\n    if (midPoint < 0) return\n    var reverseIndex = lastIndex\n    for (index in
0..midPoint) {\n        val tmp = this[index]\n        this[index] = this[reverseIndex]\n        this[reverseIndex] = tmp\n
        reverseIndex--\n    }\n}\n\n/**\n * Reverses elements in the array in-place.\n * \n public fun IntArray.reverse():
Unit {\n    val midPoint = (size / 2) - 1\n    if (midPoint < 0) return\n    var reverseIndex = lastIndex\n    for (index in
0..midPoint) {\n        val tmp = this[index]\n        this[index] = this[reverseIndex]\n        this[reverseIndex] = tmp\n
        reverseIndex--\n    }\n}\n\n/**\n * Reverses elements in the array in-place.\n * \n public fun LongArray.reverse():
Unit {\n    val midPoint = (size / 2) - 1\n    if (midPoint < 0) return\n    var reverseIndex = lastIndex\n    for (index in
0..midPoint) {\n        val tmp = this[index]\n        this[index] = this[reverseIndex]\n        this[reverseIndex] = tmp\n
        reverseIndex--\n    }\n}\n\n/**\n * Reverses elements in the array in-place.\n * \n public fun FloatArray.reverse(): Unit {\n    val
midPoint = (size / 2) - 1\n    if (midPoint < 0) return\n    var reverseIndex = lastIndex\n    for (index in 0..midPoint)
{\n        val tmp = this[index]\n        this[index] = this[reverseIndex]\n        this[reverseIndex] = tmp\n
        reverseIndex--\n    }\n}\n\n/**\n * Reverses elements in the array in-place.\n * \n public fun DoubleArray.reverse():
Unit {\n    val midPoint = (size / 2) - 1\n    if (midPoint < 0) return\n    var reverseIndex = lastIndex\n    for (index in
0..midPoint) {\n        val tmp = this[index]\n        this[index] = this[reverseIndex]\n        this[reverseIndex] = tmp\n
        reverseIndex--\n    }\n}\n\n/**\n * Reverses elements in the array in-place.\n * \n public fun
BooleanArray.reverse(): Unit {\n    val midPoint = (size / 2) - 1\n    if (midPoint < 0) return\n    var reverseIndex =
lastIndex\n    for (index in 0..midPoint) {\n        val
tmp = this[index]\n        this[index] = this[reverseIndex]\n        this[reverseIndex] = tmp\n        reverseIndex--\n
    }\n}\n\n/**\n * Reverses elements in the array in-place.\n * \n public fun CharArray.reverse(): Unit {\n    val
midPoint = (size / 2) - 1\n    if (midPoint < 0) return\n    var reverseIndex = lastIndex\n    for (index in 0..midPoint)
{\n        val tmp = this[index]\n        this[index] = this[reverseIndex]\n        this[reverseIndex] = tmp\n
        reverseIndex--\n    }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param
fromIndex the start of the range (inclusive) to reverse.\n * \n * @param toIndex the end of the range (exclusive) to
reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than
the size of this array.\n * \n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
\n * \n @SinceKotlin("1.4")\n public fun <T> Array<T>.reverse(fromIndex: Int, toIndex:
Int): Unit {\n    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    val midPoint = (fromIndex +
toIndex) / 2\n    if (fromIndex == midPoint) return\n    var reverseIndex = toIndex - 1\n    for (index in fromIndex
until midPoint) {\n        val tmp = this[index]\n        this[index] = this[reverseIndex]\n        this[reverseIndex] =

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tmp\n    reverseIndex--\n    }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n *\n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n *\n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n *\n */\n@SinceKotlin("1.4")\npublic fun ByteArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    val midPoint = (fromIndex + toIndex) / 2\n    if (fromIndex == midPoint) return\n    var reverseIndex = toIndex - 1\n    for (index in fromIndex until midPoint) {\n        val tmp = this[index]\n        this[index] = this[reverseIndex]\n        this[reverseIndex] = tmp\n        reverseIndex--\n    }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n *\n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n *\n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n *\n */\n@SinceKotlin("1.4")\npublic fun ShortArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    val midPoint = (fromIndex + toIndex) / 2\n    if (fromIndex == midPoint) return\n    var reverseIndex = toIndex - 1\n    for (index in fromIndex until midPoint) {\n        val tmp = this[index]\n        this[index] = this[reverseIndex]\n        this[reverseIndex] = tmp\n        reverseIndex--\n    }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n *\n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n *\n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n *\n */\n@SinceKotlin("1.4")\npublic fun IntArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    val midPoint = (fromIndex + toIndex) / 2\n    if (fromIndex == midPoint) return\n    var reverseIndex = toIndex - 1\n    for (index in fromIndex until midPoint) {\n        val tmp = this[index]\n        this[index] = this[reverseIndex]\n        this[reverseIndex] = tmp\n        reverseIndex--\n    }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n *\n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n *\n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n *\n */\n@SinceKotlin("1.4")\npublic fun LongArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    val midPoint = (fromIndex + toIndex) / 2\n    if (fromIndex == midPoint) return\n    var reverseIndex = toIndex - 1\n    for (index in fromIndex until midPoint) {\n        val tmp = this[index]\n        this[index] = this[reverseIndex]\n        this[reverseIndex] = tmp\n        reverseIndex--\n    }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n *\n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n *\n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n *\n */\n@SinceKotlin("1.4")\npublic fun FloatArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    val midPoint = (fromIndex + toIndex) / 2\n    if (fromIndex == midPoint) return\n    var reverseIndex = toIndex - 1\n    for (index in fromIndex until midPoint) {\n        val tmp = this[index]\n        this[index] = this[reverseIndex]\n        this[reverseIndex] = tmp\n        reverseIndex--\n    }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n *\n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n *\n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n *\n */\n@SinceKotlin("1.4")\npublic fun DoubleArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    val midPoint = (fromIndex + toIndex) / 2\n    if (fromIndex == midPoint) return\n    var reverseIndex = toIndex - 1\n    for (index in fromIndex until midPoint) {\n        val tmp = this[index]\n        this[index] = this[reverseIndex]\n        this[reverseIndex] = tmp\n        reverseIndex--\n    }\n}

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}
}

/**
 * Reverses elements of the array in the specified range in-place.
 * @param fromIndex the start of the range (inclusive) to reverse.
 * @param toIndex the end of the range (exclusive) to reverse.
 * @throws IndexOutOfBoundsException if [fromIndex] is less than zero
 * or [toIndex] is greater than the size of this array.
 * @throws IllegalArgumentException if [fromIndex] is greater
 * than [toIndex].
 */
@SinceKotlin("1.4")
public fun BooleanArray.reverse(fromIndex: Int, toIndex: Int): Unit {
    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)
    val midPoint = (fromIndex + toIndex) / 2
    if (fromIndex == midPoint) return
    var reverseIndex = toIndex - 1
    for (index in fromIndex until midPoint) {
        val tmp = this[index]
        this[index] = this[reverseIndex]
        this[reverseIndex] = tmp
        reverseIndex--
    }
}

/**
 * Reverses elements of the array in the specified range in-place.
 * @param fromIndex the start of the range (inclusive) to reverse.
 * @param toIndex the end of the range (exclusive) to reverse.
 * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.
 * @throws IllegalArgumentException if [fromIndex] is
 * greater than [toIndex].
 */
@SinceKotlin("1.4")
public fun CharArray.reverse(fromIndex: Int, toIndex: Int):
Unit {
    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)
    val midPoint = (fromIndex + toIndex) /
2
    if (fromIndex == midPoint) return
    var reverseIndex = toIndex - 1
    for (index in fromIndex until
midPoint) {
        val tmp = this[index]
        this[index] = this[reverseIndex]
        this[reverseIndex] = tmp
        reverseIndex--
    }
}

/**
 * Returns a list with elements in reversed order.
 */
public fun <T> Array<out
T>.reversed(): List<T> {
    if (isEmpty()) return emptyList()
    val list = toMutableList()
    list.reverse()
    return list
}

/**
 * Returns a list with elements in reversed order.
 */
public fun ByteArray.reversed():
List<Byte> {
    if (isEmpty()) return emptyList()
    val list = toMutableList()
    list.reverse()
    return list
}

/**
 * Returns a list with elements in reversed order.
 */
public fun ShortArray.reversed(): List<Short> {
    if (isEmpty()) return emptyList()
    val list =
toMutableList()
    list.reverse()
    return list
}

/**
 * Returns a list with elements in reversed order.
 */
public fun IntArray.reversed(): List<Int> {
    if (isEmpty()) return emptyList()
    val list = toMutableList()
    list.reverse()
    return list
}

/**
 * Returns a list with elements in reversed order.
 */
public fun LongArray.reversed(): List<Long> {
    if (isEmpty()) return emptyList()
    val list = toMutableList()
    list.reverse()
    return list
}

/**
 * Returns a list with elements in reversed order.
 */
public fun FloatArray.reversed(): List<Float> {
    if (isEmpty()) return emptyList()
    val list = toMutableList()
    list.reverse()
    return list
}

/**
 * Returns a list with elements in reversed order.
 */
public fun DoubleArray.reversed(): List<Double> {
    if (isEmpty()) return emptyList()
    val list =
toMutableList()
    list.reverse()
    return list
}

/**
 * Returns a list with elements in reversed order.
 */
public fun BooleanArray.reversed(): List<Boolean> {
    if (isEmpty()) return emptyList()
    val list =
toMutableList()
    list.reverse()
    return list
}

/**
 * Returns a list with elements in reversed order.
 */
public fun CharArray.reversed(): List<Char> {
    if (isEmpty()) return emptyList()
    val list =
toMutableList()
    list.reverse()
    return list
}

/**
 * Returns an array with elements of this array in
 * reversed order.
 */
public fun <T> Array<T>.reversedArray(): Array<T> {
    if (isEmpty()) return this
    val
result = arrayOfNulls(this, size)
    val lastIndex = lastIndex
    for (i in 0..lastIndex)
        result[lastIndex - i] =
this[i]
    return result
}

/**
 * Returns an array with elements of this array in reversed order.
 */
public fun ByteArray.reversedArray(): ByteArray {
    if (isEmpty()) return this
    val
result = ByteArray(size)
    val lastIndex = lastIndex
    for (i in 0..lastIndex)
        result[lastIndex - i] =
this[i]
    return result
}

/**
 * Returns an array with elements of this array in reversed order.
 */
public fun ShortArray.reversedArray(): ShortArray {
    if (isEmpty()) return this
    val result = ShortArray(size)
    val
lastIndex = lastIndex
    for (i in 0..lastIndex)
        result[lastIndex - i] =
this[i]
    return result
}

/**
 * Returns an array with elements of this array in reversed order.
 */
public fun IntArray.reversedArray(): IntArray
{
    if (isEmpty()) return this
    val result = IntArray(size)
    val
lastIndex = lastIndex
    for (i in
0..lastIndex)
        result[lastIndex - i] =
this[i]
    return result
}

/**
 * Returns an array with elements of this
 * array in reversed order.
 */
public fun LongArray.reversedArray(): LongArray {
    if (isEmpty()) return this
    val
result = LongArray(size)
    val

```





```

*\n@SinceKotlin("1.4")\npublic fun LongArray.shuffle(random: Random): Unit {\n for
(i in lastIndex downTo 1) {\n val j = random.nextInt(i + 1)\n val copy = this[i]\n this[i] = this[j]\n
this[j] = copy\n }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random]
instance as the source of randomness.\n * \n * See:
https://en.wikipedia.org/wiki/Fisher%20%80%93Yates\_shuffle#The\_modern\_algorithm\n
*\n@SinceKotlin("1.4")\npublic fun FloatArray.shuffle(random: Random): Unit {\n for (i in lastIndex downTo
1) {\n val j = random.nextInt(i + 1)\n val copy = this[i]\n this[i] = this[j]\n this[j] = copy\n
}\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the
source of randomness.\n * \n * See:
https://en.wikipedia.org/wiki/Fisher%20%80%93Yates\_shuffle#The\_modern\_algorithm\n
*\n@SinceKotlin("1.4")\npublic fun DoubleArray.shuffle(random: Random): Unit {\n for (i in lastIndex
downTo 1) {\n val j = random.nextInt(i
+ 1)\n val copy = this[i]\n this[i] = this[j]\n this[j] = copy\n }\n}\n\n/**\n * Randomly shuffles
elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See:
https://en.wikipedia.org/wiki/Fisher%20%80%93Yates\_shuffle#The\_modern\_algorithm\n
*\n@SinceKotlin("1.4")\npublic fun BooleanArray.shuffle(random: Random): Unit {\n for (i in lastIndex
downTo 1) {\n val j = random.nextInt(i + 1)\n val copy = this[i]\n this[i] = this[j]\n this[j] = copy\n
}\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the
source of randomness.\n * \n * See:
https://en.wikipedia.org/wiki/Fisher%20%80%93Yates\_shuffle#The\_modern\_algorithm\n
*\n@SinceKotlin("1.4")\npublic fun CharArray.shuffle(random: Random): Unit {\n for (i in lastIndex downTo
1) {\n val j = random.nextInt(i + 1)\n val copy = this[i]\n this[i] = this[j]\n
this[j] = copy\n }\n}\n\n/**\n * Sorts elements in the array in-place according to natural sort order of the
value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve
their order relative to each other after sorting.\n */\n\npublic inline fun <T, R : Comparable<R>> Array<out
T>.sortBy(crossinline selector: (T) -> R?): Unit {\n if (size > 1) sortWith(compareBy(selector))\n}\n\n/**\n *
Sorts elements in the array in-place descending according to natural sort order of the value returned by specified
[selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each
other after sorting.\n */\n\npublic inline fun <T, R : Comparable<R>> Array<out T>.sortByDescending(crossinline
selector: (T) -> R?): Unit {\n if (size > 1) sortWith(compareByDescending(selector))\n}\n\n/**\n * Sorts elements
in the array in-place descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n
*\n\npublic fun <T : Comparable<T>> Array<out T>.sortDescending(): Unit {\n
sortWith(reverseOrder())\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural
sort order.\n */\n\npublic fun ByteArray.sortDescending(): Unit {\n if (size > 1) {\n sort()\n reverse()\n
}\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\n\npublic fun
ShortArray.sortDescending(): Unit {\n if (size > 1) {\n sort()\n reverse()\n }\n}\n\n/**\n * Sorts
elements in the array in-place descending according to their natural sort order.\n */\n\npublic fun
IntArray.sortDescending(): Unit {\n if (size > 1) {\n sort()\n reverse()\n }\n}\n\n/**\n * Sorts elements
in the array in-place descending according to their natural sort order.\n */\n\npublic fun LongArray.sortDescending():
Unit {\n if (size > 1) {\n sort()\n reverse()\n }\n}\n\n/**\n * Sorts elements in the array in-place
descending according to their natural sort order.\n */\n\npublic fun FloatArray.sortDescending(): Unit {\n if (size >
1) {\n sort()\n reverse()\n }\n}\n\n/**\n * Sorts elements in the array in-place descending according to
their natural sort order.\n */\n\npublic fun DoubleArray.sortDescending(): Unit {\n if (size > 1) {\n sort()\n
reverse()\n }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n
*\n\npublic fun CharArray.sortDescending(): Unit {\n if (size > 1) {\n sort()\n reverse()\n }\n}\n\n/**\n *
Returns a list of all elements sorted according to their natural sort order.\n * \n * The sort is _stable_. It means that
equal elements preserve their order relative to each other after sorting.\n */\n\npublic fun <T : Comparable<T>>

```

Array<out T>.sorted():

```
List<T> {\n  return sortedArray().asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their\n natural sort order.\n */\npublic fun ByteArray.sorted(): List<Byte> {\n  return toTypedArray().apply { sort()\n }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\npublic fun ShortArray.sorted(): List<Short> {\n  return toTypedArray().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural\n sort order.\n */\npublic fun IntArray.sorted(): List<Int> {\n  return\n toTypedArray().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural\n sort order.\n */\npublic fun LongArray.sorted(): List<Long> {\n  return toTypedArray().apply { sort()\n }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\npublic fun FloatArray.sorted(): List<Float> {\n  return toTypedArray().apply\n { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\npublic fun DoubleArray.sorted(): List<Double> {\n  return toTypedArray().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\npublic fun CharArray.sorted():\n List<Char> {\n  return toTypedArray().apply { sort() }.asList()\n}\n\n/**\n * Returns an array with all elements of\n this array sorted according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements\n preserve their order relative to each other after sorting.\n */\npublic fun <T : Comparable<T>>\n Array<T>.sortedArray(): Array<T> {\n  if (isEmpty()) return this\n  return this.copyOf().apply { sort()\n }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun ByteArray.sortedArray(): ByteArray {\n  if (isEmpty()) return this\n  return this.copyOf().apply\n { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun ShortArray.sortedArray(): ShortArray {\n  if (isEmpty()) return this\n  return this.copyOf().apply { sort()\n }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun IntArray.sortedArray(): IntArray {\n  if (isEmpty()) return this\n  return this.copyOf().apply { sort()\n }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun LongArray.sortedArray(): LongArray {\n  if (isEmpty()) return this\n  return this.copyOf().apply { sort()\n }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun FloatArray.sortedArray(): FloatArray {\n  if (isEmpty()) return this\n  return this.copyOf().apply { sort()\n }\n}\n\n/**\n * Returns\n an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun\n DoubleArray.sortedArray(): DoubleArray {\n  if (isEmpty()) return this\n  return this.copyOf().apply { sort()\n }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun CharArray.sortedArray(): CharArray {\n  if (isEmpty()) return this\n  return this.copyOf().apply { sort()\n }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural\n sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after\n sorting.\n */\npublic fun <T : Comparable<T>> Array<T>.sortedArrayDescending(): Array<T> {\n  if (isEmpty())\n return this\n  return this.copyOf().apply { sortWith(reverseOrder()) }\n}\n\n/**\n * Returns an array with all\n elements of this array sorted descending according to their natural sort order.\n */\npublic fun\n ByteArray.sortedArrayDescending(): ByteArray {\n  if (isEmpty()) return this\n  return\n this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted\n descending according to their natural sort order.\n */\npublic fun ShortArray.sortedArrayDescending(): ShortArray\n {\n  if (isEmpty()) return this\n  return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array\n with all elements of this array sorted descending according to their natural sort order.\n */\npublic fun\n IntArray.sortedArrayDescending(): IntArray {\n  if (isEmpty()) return this\n  return this.copyOf().apply { sortDescending()\n }\n}\n\n/**\n * Returns an array with all elements\n of this array sorted descending according to their natural sort order.\n */\npublic fun\n LongArray.sortedArrayDescending(): LongArray {\n  if (isEmpty()) return\n this\n  return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements\n of this array sorted descending according to their natural sort order.\n */\npublic fun\n FloatArray.sortedArrayDescending(): FloatArray {\n  if (isEmpty()) return this\n  return this.copyOf().apply {
```



`Array<out T>.sortedByDescending(crossinline selector: (T) -> R?): List<T> {`  
`return`  
`sortedWith(compareByDescending(selector))}`  
`}\n\n/**\n`  
`* Returns a list of all elements sorted descending according to natural sort order of the value returned by specified`  
`[selector] function.\n */\npublic inline fun <R : Comparable<R>> ByteArray.sortedByDescending(crossinline`  
`selector: (Byte) -> R?): List<Byte> {`  
`return sortedWith(compareByDescending(selector))}`  
`}\n\n/**\n * Returns`  
`a list of all elements sorted descending according to natural sort order of the value returned by specified [selector]`  
`function.\n */\npublic inline fun <R : Comparable<R>> ShortArray.sortedByDescending(crossinline selector:`  
`(Short) -> R?): List<Short> {`  
`return sortedWith(compareByDescending(selector))}`  
`}\n\n/**\n * Returns a list of`  
`all elements sorted descending according to natural sort order of the value returned by specified [selector]`  
`function.\n */\npublic inline fun <R : Comparable<R>> IntArray.sortedByDescending(crossinline selector: (Int) ->`  
`R?): List<Int> {`  
`return sortedWith(compareByDescending(selector))}`  
`}\n\n/**\n`  
`* Returns a list of all elements sorted descending according to natural sort order of the value returned by specified`  
`[selector] function.\n */\npublic inline fun <R : Comparable<R>> LongArray.sortedByDescending(crossinline`  
`selector: (Long) -> R?): List<Long> {`  
`return sortedWith(compareByDescending(selector))}`  
`}\n\n/**\n * Returns`  
`a list of all elements sorted descending according to natural sort order of the value returned by specified`  
`[selector] function.\n */\npublic inline fun <R : Comparable<R>> FloatArray.sortedByDescending(crossinline`  
`selector: (Float) -> R?): List<Float> {`  
`return sortedWith(compareByDescending(selector))}`  
`}\n\n/**\n * Returns`  
`a list of all elements sorted descending according to natural sort order of the value returned by specified`  
`[selector] function.\n */\npublic inline fun <R : Comparable<R>> DoubleArray.sortedByDescending(crossinline`  
`selector: (Double) -> R?): List<Double> {`  
`return sortedWith(compareByDescending(selector))}`  
`}\n\n/**\n`  
`* Returns a list of all elements sorted descending according to natural sort order of the value returned by specified`  
`[selector] function.\n */\npublic inline fun <R : Comparable<R>> BooleanArray.sortedByDescending(crossinline`  
`selector: (Boolean) -> R?): List<Boolean> {`  
`return sortedWith(compareByDescending(selector))}`  
`}\n\n/**\n * Returns`  
`a list of all elements sorted descending according to natural sort order of the value returned by specified`  
`[selector] function.\n */\npublic inline fun <R : Comparable<R>> CharArray.sortedByDescending(crossinline`  
`selector: (Char) -> R?): List<Char> {`  
`return sortedWith(compareByDescending(selector))}`  
`}\n\n/**\n * Returns`  
`a list of all elements sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It means`  
`that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T : Comparable<T>>`  
`Array<out T>.sortedDescending(): List<T> {`  
`return sortedWith(reverseOrder())}`  
`}\n\n/**\n`  
`* Returns a list of all elements sorted descending according to their natural sort order.\n */\npublic fun`  
`ByteArray.sortedDescending(): List<Byte> {`  
`return copyOf().apply { sort() }.reversed()`  
`}\n\n/**\n * Returns a`  
`list of all elements sorted descending according to their natural sort order.\n */\npublic fun`  
`ShortArray.sortedDescending(): List<Short> {`  
`return copyOf().apply { sort() }.reversed()`  
`}\n\n/**\n * Returns`  
`a list of all elements sorted descending according to their natural sort order.\n */\npublic fun`  
`IntArray.sortedDescending(): List<Int> {`  
`return copyOf().apply { sort() }.reversed()`  
`}\n\n/**\n * Returns a list`  
`of all elements sorted descending according to their natural sort order.\n */\npublic fun`  
`LongArray.sortedDescending(): List<Long> {`  
`return copyOf().apply { sort() }.reversed()`  
`}\n\n/**\n * Returns`  
`a list of all elements sorted descending according to their natural sort order.\n */\npublic fun`  
`FloatArray.sortedDescending():`  
`List<Float> {`  
`return copyOf().apply { sort() }.reversed()`  
`}\n\n/**\n * Returns a list of all elements sorted`  
`descending according to their natural sort order.\n */\npublic fun DoubleArray.sortedDescending(): List<Double>`  
`{`  
`return copyOf().apply { sort() }.reversed()`  
`}\n\n/**\n * Returns a list of all elements sorted descending`  
`according to their natural sort order.\n */\npublic fun CharArray.sortedDescending(): List<Char> {`  
`return`  
`copyOf().apply { sort() }.reversed()`  
`}\n\n/**\n * Returns a list of all elements sorted according to the specified`  
`[comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other`  
`after sorting.\n */\npublic fun <T> Array<out T>.sortedWith(comparator: Comparator<in T>): List<T> {`  
`return`  
`sortedArrayWith(comparator).asList()`  
`}\n\n/**\n * Returns a list of all elements sorted according to the specified`  
`[comparator].\n */\npublic fun ByteArray.sortedWith(comparator: Comparator<in Byte>):`

```

List<Byte> {\n  return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a list of all
elements sorted according to the specified [comparator].\n *\npublic fun ShortArray.sortedWith(comparator:
Comparator<in Short>): List<Short> {\n  return toTypedArray().apply { sortWith(comparator)
}.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n *\npublic fun
IntArray.sortedWith(comparator: Comparator<in Int>): List<Int> {\n  return toTypedArray().apply {
sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified
[comparator].\n *\npublic fun LongArray.sortedWith(comparator: Comparator<in Long>): List<Long> {\n  return
toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according
to the specified [comparator].\n *\npublic fun FloatArray.sortedWith(comparator: Comparator<in Float>):
List<Float>
{\n  return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a list of all elements
sorted according to the specified [comparator].\n *\npublic fun DoubleArray.sortedWith(comparator:
Comparator<in Double>): List<Double> {\n  return toTypedArray().apply { sortWith(comparator)
}.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n *\npublic fun
BooleanArray.sortedWith(comparator: Comparator<in Boolean>): List<Boolean> {\n  return
toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according
to the specified [comparator].\n *\npublic fun CharArray.sortedWith(comparator: Comparator<in Char>):
List<Char> {\n  return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a [List] that
wraps the original array.\n *\npublic expect fun <T> Array<out T>.asList(): List<T>\n\n/**\n * Returns a [List]
that wraps the original array.\n
*\npublic expect fun ByteArray.asList(): List<Byte>\n\n/**\n * Returns a [List] that wraps the original array.\n
*\npublic expect fun ShortArray.asList(): List<Short>\n\n/**\n * Returns a [List] that wraps the original array.\n
*\npublic expect fun IntArray.asList(): List<Int>\n\n/**\n * Returns a [List] that wraps the original array.\n
*\npublic expect fun LongArray.asList(): List<Long>\n\n/**\n * Returns a [List] that wraps the original array.\n
*\npublic expect fun FloatArray.asList(): List<Float>\n\n/**\n * Returns a [List] that wraps the original array.\n
*\npublic expect fun DoubleArray.asList(): List<Double>\n\n/**\n * Returns a [List] that wraps the original
array.\n *\npublic expect fun BooleanArray.asList(): List<Boolean>\n\n/**\n * Returns a [List] that wraps the
original array.\n *\npublic expect fun CharArray.asList(): List<Char>\n\n/**\n * Returns `true` if the two specified
arrays are *deeply* equal to one another,\n * i.e. contain the same number of the same elements
in the same order.\n * \n * If two corresponding elements are nested arrays, they are also compared deeply.\n * If
any of arrays contains itself on any nesting level the behavior is undefined.\n * \n * The elements of other types are
compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is
equal to itself and `-0.0` is not equal to `0.0`.\n
*\n@SinceKotlin("1.1")\n@kotlin.internal.LowPriorityInOverloadResolution\npublic expect infix fun <T>
Array<out T>.contentDeepEquals(other: Array<out T>): Boolean\n\n/**\n * Returns `true` if the two specified
arrays are *deeply* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n
*\n * The specified arrays are also considered deeply equal if both are `null`.\n * \n * If two corresponding elements
are nested arrays, they are also compared deeply.\n * If any of arrays contains itself on any nesting level the
behavior is undefined.\n * \n
*\n * The elements of other types are compared for equality with the [equals][Any.equals] function.\n * For floating
point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
*\n@SinceKotlin("1.4")\npublic expect infix fun <T> Array<out T>?.contentDeepEquals(other: Array<out T>?):
Boolean\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n * Nested arrays are
treated as lists too.\n * \n * If any of arrays contains itself on any nesting level the behavior is undefined.\n
*\n@SinceKotlin("1.1")\n@kotlin.internal.LowPriorityInOverloadResolution\npublic expect fun <T> Array<out
T>.contentDeepHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n
*\n * Nested arrays are treated as lists too.\n * \n * If any of arrays contains itself on any nesting level the behavior is
undefined.\n *\n@SinceKotlin("1.4")\npublic expect fun <T> Array<out T>?.contentDeepHashCode():

```

Int\n\n/\*\*\n

\* Returns a string representation of the contents of this array as if it is a [List].\n \* Nested arrays are treated as lists too.\n \* \n \* If any of arrays contains itself on any nesting level that reference\n \* is rendered as `\"[...]\"` to prevent recursion.\n \* \n \* @sample samples.collections.Arrays.ContentOperations.contentDeepToString\n

\*\n@SinceKotlin(\"1.1\")\n@kotlin.internal.LowPriorityInOverloadResolution\npublic expect fun <T> Array<out T>.contentDeepToString(): String\n\n/\*\*\n \* Returns a string representation of the contents of this array as if it is a [List].\n \* Nested arrays are treated as lists too.\n \* \n \* If any of arrays contains itself on any nesting level that reference\n \* is rendered as `\"[...]\"` to prevent recursion.\n \* \n \* @sample

samples.collections.Arrays.ContentOperations.contentDeepToString\n \*\n@SinceKotlin(\"1.4\")\npublic expect fun <T> Array<out T>?.contentDeepToString(): String\n\n/\*\*\n \* Returns `true` if the two specified arrays are \*structurally\*

equal to one another,\n \* i.e. contain the same number of the same elements in the same order.\n \* \n \* The elements are compared for equality with the [equals][Any.equals] function.\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n \*\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun <T> Array<out T>.contentEquals(other: Array<out T>): Boolean\n\n/\*\*\n \* Returns `true` if the two specified arrays are \*structurally\* equal to one another,\n \* i.e. contain the same number of the same elements in the same order.\n \* \n \* The elements are compared for equality with the [equals][Any.equals] function.\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n \*\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun ByteArray.contentEquals(other: ByteArray): Boolean\n\n/\*\*\n \* Returns `true` if the two specified arrays are \*structurally\* equal to one another,\n \* i.e. contain the same number of the same elements in the same order.\n \* \n \* The elements are compared for equality with the [equals][Any.equals] function.\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n

\*\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun ShortArray.contentEquals(other: ShortArray): Boolean\n\n/\*\*\n \* Returns `true` if the two specified arrays are \*structurally\* equal to one another,\n \* i.e. contain the same number of the same elements in the same order.\n \* \n \* The elements are compared for equality with the [equals][Any.equals] function.\n \* For floating point numbers it means that

`NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n \*\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun IntArray.contentEquals(other: IntArray): Boolean\n\n/\*\*\n \* Returns `true` if the two specified arrays are \*structurally\* equal to one another,\n \* i.e. contain the same number of the same elements in the same order.\n \* \n \* The elements are compared for equality with the [equals][Any.equals] function.\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n \*\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun LongArray.contentEquals(other: LongArray): Boolean\n\n/\*\*\n \* Returns `true` if the two specified arrays are \*structurally\* equal to one another,\n \* i.e. contain the same number of the

same elements in the same order.\n \* \n \* The elements are compared for equality with the [equals][Any.equals] function.\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n \*\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun FloatArray.contentEquals(other: FloatArray): Boolean\n\n/\*\*\n \* Returns `true` if the two specified arrays are \*structurally\* equal to one another,\n \* i.e. contain the same number of the same elements in the same order.\n \* \n \* The elements are compared for equality with the [equals][Any.equals] function.\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n \*\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic

expect infix fun DoubleArray.contentEquals(other:

Boolean): Boolean\n\n \* Returns `true` if the two specified arrays are \*structurally\* equal to one another,\n\n \* i.e. contain the same number of the same elements in the same order.\n\n \* The elements are compared for equality with the [equals][Any.equals] function.\n\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n\n \* \n\n @Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")\n\n @SinceKotlin("1.1")\n\n @DeprecatedSinceKotlin(hiddenSince = "1.4")\n\n public expect infix fun BooleanArray.contentEquals(other: BooleanArray): Boolean\n\n \* Returns `true` if the two specified arrays are \*structurally\* equal to one another,\n\n \* i.e. contain the same number of the same elements in the same order.\n\n \* \n\n \* The elements are compared for equality with the [equals][Any.equals] function.\n\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n\n \* \n\n @Deprecated("Use

Kotlin compiler 1.4 to avoid deprecation

warning.")\n\n @SinceKotlin("1.1")\n\n @DeprecatedSinceKotlin(hiddenSince = "1.4")\n\n public expect infix fun

CharArray.contentEquals(other: CharArray): Boolean\n\n \* Returns `true` if the two specified arrays are \*structurally\* equal to one another,\n\n \* i.e. contain the same number of the same elements in the same order.\n\n \* \n\n \* The elements are compared for equality with the [equals][Any.equals] function.\n\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n\n \* \n\n @SinceKotlin("1.4")\n\n public expect infix fun <T> Array<out T>?.contentEquals(other: Array<out T>?): Boolean\n\n \* Returns `true` if the two specified arrays are \*structurally\* equal to one another,\n\n \* i.e. contain the same number of the same elements in the same order.\n\n \* \n\n \* The elements are compared for equality with the [equals][Any.equals] function.\n\n \* For floating point numbers it means that `NaN` is equal

to itself and `-0.0` is not equal to `0.0`.\n\n \* \n\n @SinceKotlin("1.4")\n\n public expect infix fun

ByteArray?.contentEquals(other: ByteArray?): Boolean\n\n \* Returns `true` if the two specified arrays are \*structurally\* equal to one another,\n\n \* i.e. contain the same number of the same elements in the same order.\n\n \* \n\n \* The elements are compared for equality with the [equals][Any.equals] function.\n\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n\n \* \n\n @SinceKotlin("1.4")\n\n public expect infix fun ShortArray?.contentEquals(other: ShortArray?): Boolean\n\n \* Returns `true` if the two specified arrays are \*structurally\* equal to one another,\n\n \* i.e. contain the same number of the same elements in the same order.\n\n \* \n\n \* The elements are compared for equality with the [equals][Any.equals] function.\n\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n\n \* \n\n @SinceKotlin("1.4")\n\n public

expect infix fun IntArray?.contentEquals(other: IntArray?): Boolean\n\n \* Returns `true` if the two specified arrays are \*structurally\* equal to one another,\n\n \* i.e. contain the same number of the same elements in the same order.\n\n \* \n\n \* The elements are compared for equality with the [equals][Any.equals] function.\n\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n\n \* \n\n @SinceKotlin("1.4")\n\n public expect infix fun LongArray?.contentEquals(other: LongArray?): Boolean\n\n \* Returns `true` if the two specified arrays are \*structurally\* equal to one another,\n\n \* i.e. contain the same number of the same elements in the same order.\n\n \* \n\n \* The elements are compared for equality with the [equals][Any.equals] function.\n\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n\n \* \n\n @SinceKotlin("1.4")\n\n public expect infix fun FloatArray?.contentEquals(other: FloatArray?):

Boolean\n\n \* Returns `true` if the two specified arrays are \*structurally\* equal to one another,\n\n \* i.e. contain the same number of the same elements in the same order.\n\n \* \n\n \* The elements are compared for equality with the [equals][Any.equals] function.\n\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n\n \* \n\n @SinceKotlin("1.4")\n\n public expect infix fun DoubleArray?.contentEquals(other:

DoubleArray?): Boolean\n\n \* Returns `true` if the two specified arrays are \*structurally\* equal to one another,\n\n \* i.e. contain the same number of the same elements in the same order.\n\n \* \n\n \* The elements are compared for equality with the [equals][Any.equals] function.\n\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n\n \* \n\n @SinceKotlin("1.4")\n\n public expect infix fun

BooleanArray?.contentEquals(other: BooleanArray?): Boolean\n\n \* Returns `true` if the two specified

arrays are *structurally* equal to one another, i.e. contain the same number of the same elements in the same order. The elements are compared for equality with the `[Any.equals]` function. For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.

`@SinceKotlin("1.4")`  
`public expect infix fun CharArray?.contentEquals(other: CharArray?): Boolean`  
Returns a hash code based on the contents of this array as if it is `[List]`.

`@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")`  
`@SinceKotlin("1.1")`  
`@DeprecatedSinceKotlin(hiddenSince = "1.4")`  
`public expect fun <T> Array<out T>.contentHashCode(): Int`  
Returns a hash code based on the contents of this array as if it is `[List]`.

`@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")`  
`@SinceKotlin("1.1")`  
`@DeprecatedSinceKotlin(hiddenSince = "1.4")`  
`public expect fun ByteArray.contentHashCode(): Int`  
Returns a hash code based on the contents of this array as if it is `[List]`.

`@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")`  
`@SinceKotlin("1.1")`  
`@DeprecatedSinceKotlin(hiddenSince = "1.4")`  
`public expect fun ShortArray.contentHashCode(): Int`  
Returns a hash code based on the contents of this array as if it is `[List]`.

`@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")`  
`@SinceKotlin("1.1")`  
`@DeprecatedSinceKotlin(hiddenSince = "1.4")`  
`public expect fun IntArray.contentHashCode(): Int`  
Returns a hash code based on the contents of this array as if it is `[List]`.

`@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")`  
`@SinceKotlin("1.1")`  
`@DeprecatedSinceKotlin(hiddenSince = "1.4")`  
`public expect fun LongArray.contentHashCode(): Int`  
Returns a hash code based on the contents of this array as if it is `[List]`.

`@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")`  
`@SinceKotlin("1.1")`  
`@DeprecatedSinceKotlin(hiddenSince = "1.4")`  
`public expect fun FloatArray.contentHashCode(): Int`  
Returns a hash code based on the contents of this array as if it is `[List]`.

`@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")`  
`@SinceKotlin("1.1")`  
`@DeprecatedSinceKotlin(hiddenSince = "1.4")`  
`public expect fun DoubleArray.contentHashCode(): Int`  
Returns a hash code based on the contents of this array as if it is `[List]`.

`@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")`  
`@SinceKotlin("1.1")`  
`@DeprecatedSinceKotlin(hiddenSince = "1.4")`  
`public expect fun BooleanArray.contentHashCode(): Int`  
Returns a hash code based on the contents of this array as if it is `[List]`.

`@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")`  
`@SinceKotlin("1.1")`  
`@DeprecatedSinceKotlin(hiddenSince = "1.4")`  
`public expect fun CharArray.contentHashCode(): Int`  
Returns a hash code based on the contents of this array as if it is `[List]`.

`@SinceKotlin("1.4")`  
`public expect fun <T> Array<out T>?.contentHashCode(): Int`  
Returns a hash code based on the contents of this array as if it is `[List]`.

`@SinceKotlin("1.4")`  
`public expect fun ByteArray?.contentHashCode(): Int`  
Returns a hash code based on the contents of this array as if it is `[List]`.

`@SinceKotlin("1.4")`  
`public expect fun ShortArray?.contentHashCode(): Int`  
Returns a hash code based on the contents of this array as if it is `[List]`.

`@SinceKotlin("1.4")`  
`public expect fun IntArray?.contentHashCode(): Int`  
Returns a hash code based on the contents of this array as if it is `[List]`.

`@SinceKotlin("1.4")`  
`public expect fun LongArray?.contentHashCode(): Int`  
Returns a hash code based on the contents of this array as if it is `[List]`.

`@SinceKotlin("1.4")`  
`public expect fun FloatArray?.contentHashCode(): Int`  
Returns a hash code based on the contents of this array as if it is `[List]`.

`@SinceKotlin("1.4")`  
`public expect fun DoubleArray?.contentHashCode(): Int`  
Returns a hash code based on the contents of this array as if it is `[List]`.

`@SinceKotlin("1.4")`  
`public expect fun BooleanArray?.contentHashCode(): Int`  
Returns a hash code based on the contents of this array as if it is `[List]`.

`@SinceKotlin("1.4")`  
`public expect fun CharArray?.contentHashCode(): Int`  
Returns a string representation of the contents of the specified array as if it is `[List]`.



```

samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\n"Use Kotlin compiler 1.4 to
avoid deprecation warning.\n")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic
expect fun <T> Array<out T>.contentToString(): String\n\n/**\n * Returns a string representation of the contents of
the specified
array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@Deprecated(\n"Use Kotlin compiler 1.4 to avoid deprecation
warning.\n")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic expect fun
ByteArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array
as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@Deprecated(\n"Use Kotlin compiler 1.4 to avoid deprecation
warning.\n")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic expect fun
ShortArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array
as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@Deprecated(\n"Use Kotlin compiler 1.4 to avoid deprecation
warning.\n")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince
= "1.4")\npublic expect fun IntArray.contentToString(): String\n\n/**\n * Returns a string representation of the
contents of the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\n"Use Kotlin compiler 1.4 to
avoid deprecation warning.\n")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic
expect fun LongArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the
specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@Deprecated(\n"Use Kotlin compiler 1.4 to avoid deprecation
warning.\n")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic expect fun
FloatArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array
as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@Deprecated(\n"Use Kotlin compiler 1.4 to avoid deprecation
warning.\n")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic expect fun
DoubleArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified
array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@Deprecated(\n"Use Kotlin compiler 1.4 to avoid deprecation
warning.\n")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic expect fun
BooleanArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified
array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@Deprecated(\n"Use Kotlin compiler 1.4 to avoid deprecation
warning.\n")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic expect fun
CharArray.contentToString(): String\n\n/**\n * Returns
a string representation of the contents of the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin("1.4")\npublic expect fun <T>
Array<out T>?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified
array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@SinceKotlin("1.4")\npublic expect fun ByteArray?.contentToString(): String\n\n/**\n * Returns a string
representation of the contents of the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin("1.4")\npublic expect fun
ShortArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified
array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@SinceKotlin("1.4")\npublic
expect fun IntArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the
specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n

```



the position in the [destination] array to copy to, 0 by default.\n \* @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n \* @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n \* \n \* @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n \* @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n \* or when that index is out of the [destination] array indices range.\n \* \n \* @return the [destination] array.\n \* \n \* @since Kotlin("1.3")\n public expect fun IntArray.copyInto(destination: IntArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): IntArray\n \* \n \* Copies this array or its subrange into the [destination] array and returns that array.\n \* \n \* It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n \* \n \* @param destination the array to copy to.\n \* @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n \* @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n \* @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n \* \n \* @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n \* @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n \* or when that index is out of the [destination] array indices range.\n \* \n \* @return the [destination] array.\n \* \n \* @since Kotlin("1.3")\n public expect fun LongArray.copyInto(destination: LongArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): LongArray\n \* \n \* Copies this array or its subrange into the [destination] array and returns that array.\n \* \n \* It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n \* \n \* @param destination the array to copy to.\n \* @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n \* @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n \* @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n \* \n \* @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n \* @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n \* or when that index is out of the [destination] array indices range.\n \* \n \* @return the [destination] array.\n \* \n \* @since Kotlin("1.3")\n public expect fun FloatArray.copyInto(destination: FloatArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): FloatArray\n \* \n \* Copies this array or its subrange into the [destination] array and returns that array.\n \* \n \* It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n \* \n \* @param destination the array to copy to.\n \* @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n \* @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n \* @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n \* \n \* @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n \* @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n \* or when that index is out of the [destination] array indices range.\n \* \n \* @return the [destination] array.\n \* \n \* @since Kotlin("1.3")\n public expect fun DoubleArray.copyInto(destination: DoubleArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): DoubleArray\n \* \n \* Copies this array or its subrange into the [destination] array and returns that array.\n \* \n \* It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n \* \n \* @param destination the array to copy to.\n \* @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n \* @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n \* @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n \* \n \* @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this

array indices or when `startIndex > endIndex`. \n \* @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset], \n \* or when that index is out of the [destination] array indices range. \n \* \n \* @return the [destination] array. \n \* \n \* @SinceKotlin("1.3")\npublic expect fun BooleanArray.copyInto(destination: BooleanArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): BooleanArray\n\n/\*\*\n \* Copies this array or its subrange into the [destination] array and returns that array. \n \* \n \* It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range. \n \* \n \* @param destination the array to copy to. \n \* @param destinationOffset the position in the [destination] array to copy to, 0 by default. \n \* @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default. \n \* @param endIndex the end (exclusive) of the subrange to copy, size of this array by default. \n \* \n \* @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`. \n \* @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset], \n \* or when that index is out of the [destination] array indices range. \n \* \n \* @return the [destination] array. \n \* \n \* @SinceKotlin("1.3")\npublic expect fun CharArray.copyInto(destination: CharArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): CharArray\n\n/\*\*\n \* Returns new array which is a copy of the original array. \n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.copyOfOf\n\n\*/\n\n@Suppress("NO\_ACTUAL\_FOR\_EXPECT")\npublic expect fun <T> Array<T>.copyOf(): Array<T>\n\n/\*\*\n \* Returns new array which is a copy of the original array. \n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.copyOfOf\n\n\*/\n\npublic expect fun ByteArray.copyOf(): ByteArray\n\n/\*\*\n \* Returns new array which is a copy of the original array. \n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.copyOfOf\n\n\*/\n\npublic expect fun ShortArray.copyOf(): ShortArray\n\n/\*\*\n \* Returns new array which is a copy of the original array. \n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.copyOfOf\n\n\*/\n\npublic expect fun IntArray.copyOf(): IntArray\n\n/\*\*\n \* Returns new array which is a copy of the original array. \n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.copyOfOf\n\n\*/\n\npublic expect fun LongArray.copyOf(): LongArray\n\n/\*\*\n \* Returns new array which is a copy of the original array. \n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.copyOfOf\n\n\*/\n\npublic expect fun FloatArray.copyOf(): FloatArray\n\n/\*\*\n \* Returns new array which is a copy of the original array. \n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.copyOfOf\n\n\*/\n\npublic expect fun DoubleArray.copyOf(): DoubleArray\n\n/\*\*\n \* Returns new array which is a copy of the original array. \n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.copyOfOf\n\n\*/\n\npublic expect fun BooleanArray.copyOf(): BooleanArray\n\n/\*\*\n \* Returns new array which is a copy of the original array. \n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.copyOfOf\n\n\*/\n\npublic expect fun CharArray.copyOf(): CharArray\n\n/\*\*\n \* Returns new array which is a copy of the original array, resized to the given [newSize]. \n \* \n \* The copy is either truncated or padded at the end with zero values if necessary. \n \* \n \* - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize]. \n \* - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values. \n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n\n\*/\n\npublic expect fun ByteArray.copyOf(newSize: Int): ByteArray\n\n/\*\*\n \* Returns new array which is a copy of the original array, resized to the given [newSize]. \n \* \n \* The copy is either truncated or padded at the end with zero values if necessary. \n \* \n \* - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize]. \n \* - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values. \n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n\n\*/\n\npublic expect fun ShortArray.copyOf(newSize: Int): ShortArray\n\n/\*\*\n \* Returns new array which is a copy of the original array, resized to the given

[newSize].\n \* The copy is either truncated or padded at the end with zero values if necessary.\n \* \n \* - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n \* - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n \* ^\npublic expect fun IntArray.copyOf(newSize: Int): IntArray\n\n/\*\*\n \* Returns new array which is a copy of the original array, resized to the given [newSize].\n \* The copy is either truncated or padded at the end with zero values if necessary.\n \* \n \* - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n \* - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n \* ^\npublic expect fun LongArray.copyOf(newSize: Int): LongArray\n\n/\*\*\n \* Returns new array which is a copy of the original array, resized to the given [newSize].\n \* The copy is either truncated or padded at the end with zero values if necessary.\n \* \n \* - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n \* - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n \* ^\npublic expect fun FloatArray.copyOf(newSize: Int): FloatArray\n\n/\*\*\n \* Returns new array which is a copy of the original array, resized to the given [newSize].\n \* The copy is either truncated or padded at the end with zero values if necessary.\n \* \n \* - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n \* - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n \* ^\npublic expect fun DoubleArray.copyOf(newSize: Int): DoubleArray\n\n/\*\*\n \* Returns new array which is a copy of the original array, resized to the given [newSize].\n \* The copy is either truncated or padded at the end with `false` values if necessary.\n \* \n \* - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n \* - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with `false` values.\n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n \* ^\npublic expect fun BooleanArray.copyOf(newSize: Int): BooleanArray\n\n/\*\*\n \* Returns new array which is a copy of the original array, resized to the given [newSize].\n \* The copy is either truncated or padded at the end with null char (`\u0000`) values if necessary.\n \* \n \* - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n \* - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with null char (`\u0000`) values.\n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n \* ^\npublic expect fun CharArray.copyOf(newSize: Int): CharArray\n\n/\*\*\n \* Returns new array which is a copy of the original array, resized to the given [newSize].\n \* The copy is either truncated or padded at the end with `null` values if necessary.\n \* \n \* - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n \* - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with `null` values.\n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.resizingCopyOf\n \* ^\n@Suppress("NO\_ACTUAL\_FOR\_EXPECT")\npublic expect fun <T> Array<T>.copyOf(newSize: Int): Array<T?>\n\n/\*\*\n \* Returns a new array which is a copy of the specified range of the original array.\n \* \n \* @param fromIndex the start of the range (inclusive) to copy.\n \* @param toIndex the end of the range (exclusive) to copy.\n \* \n \* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.resizingCopyOf\n \* ^\n@Suppress("NO\_ACTUAL\_FOR\_EXPECT")\npublic expect fun <T> Array<T>.copyOfRange(fromIndex: Int, toIndex: Int): Array<T>\n\n/\*\*\n \* Returns a new array which is a copy of the specified range of the original array.\n \* \n \* @param fromIndex the start of the range (inclusive) to copy.\n \* @param toIndex the end of the range (exclusive) to copy.\n \* \n \* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws



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expect fun ByteArray.fill(element: Byte, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this
array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range
(inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by
default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than
the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
*\n@SinceKotlin("1.3")\npublic expect fun ShortArray.fill(element: Short, fromIndex: Int = 0, toIndex: Int =
size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex
the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size
of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex]
is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex]
is greater than [toIndex].\n *\n@SinceKotlin("1.3")\npublic expect fun IntArray.fill(element: Int, fromIndex: Int
= 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n *
@param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range
(exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less
than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is
greater than [toIndex].\n *\n@SinceKotlin("1.3")\npublic expect fun LongArray.fill(element: Long, fromIndex:
Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n
* @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range
(exclusive) to fill, size of this array by default.\n
* \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of
this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
*\n@SinceKotlin("1.3")\npublic expect fun FloatArray.fill(element: Float, fromIndex: Int = 0, toIndex: Int = size):
Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the
start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of
this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is
greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
*\n@SinceKotlin("1.3")\npublic expect fun DoubleArray.fill(element: Double, fromIndex: Int = 0, toIndex: Int =
size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n
* \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the
range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex]
is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if
[fromIndex] is greater than [toIndex].\n *\n@SinceKotlin("1.3")\npublic expect fun BooleanArray.fill(element:
Boolean, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified
[element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param
toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws
IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n *
@throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n *\n@SinceKotlin("1.3")\npublic
expect fun CharArray.fill(element: Char, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Returns the range
of valid indices for the array.\n *\npublic val <T> Array<out T>.indices: IntRange\n    get() = IntRange(0,
lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n *\npublic val ByteArray.indices: IntRange\n
    get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n *\npublic val
ShortArray.indices: IntRange\n    get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the
array.\n *\npublic val IntArray.indices: IntRange\n    get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of
valid indices for the array.\n *\npublic val LongArray.indices: IntRange\n    get() = IntRange(0, lastIndex)\n\n/**\n
* Returns the range of valid indices for the array.\n *\npublic val FloatArray.indices: IntRange\n    get() =
IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid
indices for the array.\n *\npublic val DoubleArray.indices: IntRange\n    get() = IntRange(0, lastIndex)\n\n/**\n *
Returns the range of valid indices for the array.\n *\npublic val BooleanArray.indices: IntRange\n    get() =

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IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val
CharArray.indices: IntRange\n    get() = IntRange(0, lastIndex)\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.isEmpty(): Boolean {\n    return size ==
0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun
ByteArray.isEmpty(): Boolean {\n    return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.isEmpty(): Boolean {\n    return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.isEmpty():
Boolean {\n    return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.isEmpty(): Boolean {\n    return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.isEmpty():
Boolean {\n    return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.isEmpty(): Boolean {\n    return size ==
0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun
BooleanArray.isEmpty(): Boolean {\n    return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.isEmpty(): Boolean {\n    return size == 0\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out
T>.isNotEmpty(): Boolean {\n    return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun
ByteArray.isNotEmpty(): Boolean {\n    return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.isNotEmpty(): Boolean {\n    return
!isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline
fun IntArray.isNotEmpty(): Boolean {\n    return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.isNotEmpty(): Boolean {\n    return
!isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline
fun FloatArray.isNotEmpty(): Boolean {\n    return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not
empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.isNotEmpty(): Boolean {\n    return
!isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun
BooleanArray.isNotEmpty(): Boolean {\n    return !isEmpty()\n}\n\n/**\n * Returns the last valid index for the array.\n */\npublic val <T> Array<out T>.lastIndex:
Int\n    get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val ByteArray.lastIndex:
Int\n    get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val ShortArray.lastIndex:
Int\n    get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val IntArray.lastIndex: Int\n    get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val LongArray.lastIndex: Int\n    get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic
val FloatArray.lastIndex: Int\n    get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic
val DoubleArray.lastIndex: Int\n    get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic
val BooleanArray.lastIndex: Int\n    get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic
val CharArray.lastIndex: Int\n    get() = size - 1\n\n/**\n * Returns an array containing all elements of the original
array and then the given [element].\n */\n@Suppress("NO_ACTUAL_FOR_EXPECT")\npublic expect operator
fun <T> Array<T>.plus(element: T): Array<T>\n\n/**\n * Returns an array containing all elements of the original
array and then the given [element].\n */\npublic expect operator fun ByteArray.plus(element: Byte):
ByteArray\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\npublic expect operator fun ShortArray.plus(element: Short): ShortArray\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\npublic expect
operator fun IntArray.plus(element: Int): IntArray\n\n/**\n * Returns an array containing all elements of the original
array and then the given [element].\n */\npublic expect operator fun LongArray.plus(element: Long):

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CharArray): CharArray\n\n/\*\*\n \* Returns an array containing all elements of the original array and then the given [element].\n \* ^\n@Suppress("NO\_ACTUAL\_FOR\_EXPECT")\npublic expect fun <T>  
Array<T>.plusElement(element: T): Array<T>\n\n/\*\*\n \* Sorts the array in-place.\n \* \n \* @sample samples.collections.Arrays.Sorting.sortArray\n \* ^\npublic expect fun IntArray.sort(): Unit\n\n/\*\*\n \* Sorts the array in-place.\n \* \n \* @sample samples.collections.Arrays.Sorting.sortArray\n \* ^\npublic expect fun LongArray.sort(): Unit\n\n/\*\*\n \* Sorts the array in-place.\n \* \n \* @sample samples.collections.Arrays.Sorting.sortArray\n \* ^\npublic expect fun ByteArray.sort(): Unit\n\n/\*\*\n \* Sorts the array in-place.\n \* \n \* @sample samples.collections.Arrays.Sorting.sortArray\n \* ^\npublic expect fun ShortArray.sort(): Unit\n\n/\*\*\n \* Sorts the array in-place.\n \* \n \* @sample samples.collections.Arrays.Sorting.sortArray\n \* ^\npublic expect fun DoubleArray.sort(): Unit\n\n/\*\*\n \* Sorts the array in-place.\n \* \n \* @sample samples.collections.Arrays.Sorting.sortArray\n \* ^\npublic expect fun FloatArray.sort(): Unit\n\n/\*\*\n \* Sorts the array in-place.\n \* \n \* @sample samples.collections.Arrays.Sorting.sortArray\n \* ^\npublic expect fun CharArray.sort(): Unit\n\n/\*\*\n \* Sorts the array in-place according to the natural order of its elements.\n \* \n \* The sort is `_stable_`. It means that equal elements preserve their order relative to each other after sorting.\n \* \n \* @sample samples.collections.Arrays.Sorting.sortArrayOfComparable\n \* ^\npublic expect fun <T : Comparable<T>> Array<out T>.sort(): Unit\n\n/\*\*\n \* Sorts a range in the array in-place.\n \* \n \* The sort is `_stable_`. It means that equal elements preserve their order relative to each other after sorting.\n \* \n \* @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n \* @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n \* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n \* @sample samples.collections.Arrays.Sorting.sortRangeOfArrayOfComparable\n \* ^\n@SinceKotlin("1.4")\npublic expect fun <T : Comparable<T>> Array<out T>.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/\*\*\n \* Sorts a range in the array in-place.\n \* \n \* @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n \* @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n \* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n \* @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n \* ^\n@SinceKotlin("1.4")\npublic expect fun ByteArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/\*\*\n \* Sorts a range in the array in-place.\n \* \n \* @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n \* @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n \* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n \* @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n \* ^\n@SinceKotlin("1.4")\npublic expect fun ShortArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/\*\*\n \* Sorts a range in the array in-place.\n \* \n \* @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n \* @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n \* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n \* @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n \* ^\n@SinceKotlin("1.4")\npublic expect fun IntArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/\*\*\n \* Sorts a range in the array in-place.\n \* \n \* @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n \* @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n \* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n \* @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n \* ^\n@SinceKotlin("1.4")\npublic expect fun LongArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/\*\*\n \* Sorts a range in the array in-place.\n \* \n \* @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n \* @param toIndex the end of the range

(exclusive) to

sort, size of this array by default.\n \* \n \* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n \* \n \* @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n

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*\n@SinceKotlin("1.4")\npublic expect fun FloatArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n *\n@SinceKotlin("1.4")\npublic expect fun
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DoubleArray.sort(fromIndex:
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Int = 0, toIndex: Int = size): Unit\n\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
```

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\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n *\n@SinceKotlin("1.4")\npublic expect fun CharArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex
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```
the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n *\n@SinceKotlin("1.4")\npublic fun <T : Comparable<T>> Array<out T>.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n    sortWith(reverseOrder(), fromIndex,
```

```
toIndex)\n}\n\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws
```

```
IllegalArgumentException if [fromIndex] is greater than [toIndex].\n *\n@SinceKotlin("1.4")\npublic fun ByteArray.sortDescending(fromIndex:
```

```
Int, toIndex: Int): Unit {\n    sort(fromIndex, toIndex)\n    reverse(fromIndex, toIndex)\n}\n\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
```

```
\n *\n@SinceKotlin("1.4")\npublic fun ShortArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n    sort(fromIndex, toIndex)\n    reverse(fromIndex, toIndex)\n}\n\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of
```

```
the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n *\n@SinceKotlin("1.4")\npublic fun IntArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n    sort(fromIndex, toIndex)\n    reverse(fromIndex, toIndex)\n}\n\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
```

```
\n *\n@SinceKotlin("1.4")\npublic fun LongArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n
```

```

    sort(fromIndex, toIndex)\n    reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the
specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n *
@param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to
sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the
size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
*/\n@SinceKotlin("1.4")\npublic fun FloatArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n
    sort(fromIndex, toIndex)\n    reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified
range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param
fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to
sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the
size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
*/\n@SinceKotlin("1.4")\npublic fun DoubleArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n
    sort(fromIndex, toIndex)\n    reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified
range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param
fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n *
\n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of
this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
*/\n@SinceKotlin("1.4")\npublic fun CharArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n
    sort(fromIndex, toIndex)\n
    reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given
[comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other
after sorting.\n */\npublic expect fun <T> Array<out T>.sortWith(comparator: Comparator<in T>): Unit\n\n/**\n * Sorts a range in the array in-place with the given [comparator].\n * \n * The sort is _stable_. It means that equal
elements preserve their order relative to each other after sorting.\n * \n * @param fromIndex the start of the range
(inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by
default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than
the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic
expect fun <T> Array<out T>.sortWith(comparator: Comparator<in
T>, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Returns an array of Boolean containing all of the
elements of this generic array.\n */\npublic fun Array<out Boolean>.toBooleanArray(): BooleanArray {\n    return
BooleanArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Byte containing all of the elements of
this generic array.\n */\npublic fun Array<out Byte>.toByteArray(): ByteArray {\n    return ByteArray(size) { index
-> this[index] }\n}\n\n/**\n * Returns an array of Char containing all of the elements of this generic array.\n
*/\npublic fun Array<out Char>.toCharArray(): CharArray {\n    return CharArray(size) { index -> this[index]
}\n}\n\n/**\n * Returns an array of Double containing all of the elements of this generic array.\n */\npublic fun
Array<out Double>.toDoubleArray(): DoubleArray {\n    return DoubleArray(size) { index -> this[index]
}\n}\n\n/**\n * Returns an array of Float containing all of the elements of this generic array.\n */\npublic
fun Array<out Float>.toFloatArray(): FloatArray {\n    return FloatArray(size) { index -> this[index] }\n}\n\n/**\n
* Returns an array of Int containing all of the elements of this generic array.\n */\npublic fun Array<out
Int>.toIntArray(): IntArray {\n    return IntArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of
Long containing all of the elements of this generic array.\n */\npublic fun Array<out Long>.toLongArray():
LongArray {\n    return LongArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Short containing
all of the elements of this generic array.\n */\npublic fun Array<out Short>.toShortArray(): ShortArray {\n    return
ShortArray(size) { index -> this[index] }\n}\n\n/**\n * Returns a *typed* object array containing all of the
elements of this primitive array.\n */\npublic expect fun ByteArray.toTypedArray(): Array<Byte>\n\n/**\n * Returns a
*typed* object array containing all of the elements of this primitive array.\n */\npublic
expect fun ShortArray.toTypedArray(): Array<Short>\n\n/**\n * Returns a *typed* object array containing all of
the elements of this primitive array.\n */\npublic expect fun IntArray.toTypedArray(): Array<Int>\n\n/**\n *

```

Returns a *typed* object array containing all of the elements of this primitive array.

```

public expect fun
LongArray.toTypedArray(): Array<Long>

```

Returns a *typed* object array containing all of the elements of this primitive array.

```

public expect fun
FloatArray.toTypedArray(): Array<Float>

```

Returns a *typed* object array containing all of the elements of this primitive array.

```

public expect fun
DoubleArray.toTypedArray(): Array<Double>

```

Returns a *typed* object array containing all of the elements of this primitive array.

```

public expect fun
BooleanArray.toTypedArray(): Array<Boolean>

```

Returns a *typed* object array containing all of the elements of this primitive array.

```

public expect fun
CharArray.toTypedArray():
    Array<Char>

```

Returns a [Map] containing key-value pairs provided by [transform] function applied to elements of the given array.

If any of two pairs would have the same key the last one gets added to the map.

The returned map preserves the entry iteration order of the original array.

@sample

```

samples.collections.Arrays.Transformations.associateArrayOfPrimitives

```

```

public inline fun <T, K, V>
Array<out T>.associate(transform: (T) -> Pair<K, V>): Map<K, V> {
    val capacity =
    mapCapacity(size).coerceAtLeast(16)
    return associateTo(LinkedHashMap<K, V>(capacity),
    transform)
}

```

Returns a [Map] containing key-value pairs provided by [transform] function applied to elements of the given array.

If any of two pairs would have the same key the last one gets added to the map.

The returned map preserves the entry iteration order of the original array.

@sample

```

samples.collections.Arrays.Transformations.associateArrayOfPrimitives

```

```

public inline fun <K, V>
ByteArray.associate(transform: (Byte) -> Pair<K, V>): Map<K, V> {
    val capacity =
    mapCapacity(size).coerceAtLeast(16)
    return associateTo(LinkedHashMap<K, V>(capacity),
    transform)
}

```

Returns a [Map] containing key-value pairs provided by [transform] function applied to elements of the given array.

If any of two pairs would have the same key the last one gets added to the map.

The returned map preserves the entry iteration order of the original array.

@sample

```

samples.collections.Arrays.Transformations.associateArrayOfPrimitives

```

```

public inline fun <K, V>
ShortArray.associate(transform: (Short) -> Pair<K, V>): Map<K, V> {
    val capacity =
    mapCapacity(size).coerceAtLeast(16)
    return associateTo(LinkedHashMap<K, V>(capacity),
    transform)
}

```

Returns a [Map] containing key-value pairs provided by [transform] function applied to elements of the given array.

If any of two pairs would have the same key the last one gets added to the map.

The returned map preserves the entry iteration order of the original array.

@sample

```

samples.collections.Arrays.Transformations.associateArrayOfPrimitives

```

```

public inline fun <K, V>
IntArray.associate(transform: (Int) -> Pair<K, V>): Map<K, V> {
    val capacity =
    mapCapacity(size).coerceAtLeast(16)
    return associateTo(LinkedHashMap<K, V>(capacity),
    transform)
}

```

Returns a [Map] containing key-value pairs provided by [transform] function applied to elements of the given array.

If any of two pairs would have the same key the last one gets added to the map.

The returned map preserves the entry iteration order of the original array.

@sample

```

samples.collections.Arrays.Transformations.associateArrayOfPrimitives

```

```

public inline fun <K, V>
LongArray.associate(transform: (Long) -> Pair<K, V>): Map<K, V> {
    val capacity =
    mapCapacity(size).coerceAtLeast(16)
    return associateTo(LinkedHashMap<K, V>(capacity), transform)
}

```

Returns a [Map] containing key-value pairs provided by [transform] function applied to elements of the given array.

If any of two pairs would have the same key the last one gets added to the map.

The returned map preserves the entry iteration order of the original array.

@sample

```

samples.collections.Arrays.Transformations.associateArrayOfPrimitives

```

```

public inline fun <K, V>
FloatArray.associate(transform: (Float) -> Pair<K, V>): Map<K, V> {
    val capacity =
    mapCapacity(size).coerceAtLeast(16)
    return associateTo(LinkedHashMap<K, V>(capacity),
    transform)
}

```

Returns a [Map] containing key-value pairs provided by [transform] function applied to elements of the given array.

If any of two pairs would have the same key the last one gets added to the

```

map.\n * \n * The returned map preserves the entry iteration order of the original
array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n *^\npublic inline
fun <K, V> DoubleArray.associate(transform: (Double) -> Pair<K, V>): Map<K, V> {\n  val capacity =
mapCapacity(size).coerceAtLeast(16)\n  return associateTo(LinkedHashMap<K, V>(capacity),
transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to
elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the
map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n *^\npublic inline fun <K, V>
BooleanArray.associate(transform: (Boolean) -> Pair<K, V>): Map<K, V> {\n  val capacity =
mapCapacity(size).coerceAtLeast(16)\n  return associateTo(LinkedHashMap<K, V>(capacity),
transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs
provided by [transform] function\n * applied to elements of the given array.\n * \n * If any of two pairs would have
the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the
original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n
*^\npublic inline fun <K, V> CharArray.associate(transform: (Char) -> Pair<K, V>): Map<K, V> {\n  val capacity
= mapCapacity(size).coerceAtLeast(16)\n  return associateTo(LinkedHashMap<K, V>(capacity),
transform)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n *
returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key
returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration
order of the original array.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n
*^\npublic inline fun <T, K> Array<out T>.associateBy(keySelector: (T) -> K): Map<K, T> {\n  val capacity =
mapCapacity(size).coerceAtLeast(16)\n  return associateByTo(LinkedHashMap<K, T>(capacity),
keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n *
returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key
returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration
order of the original array.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n
*^\npublic inline fun <K> ByteArray.associateBy(keySelector: (Byte) -> K): Map<K, Byte> {\n  val capacity =
mapCapacity(size).coerceAtLeast(16)\n  return associateByTo(LinkedHashMap<K, Byte>(capacity),
keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n *
returned
from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned
by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of
the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n
*^\npublic inline fun <K> ShortArray.associateBy(keySelector: (Short) -> K): Map<K, Short> {\n  val capacity =
mapCapacity(size).coerceAtLeast(16)\n  return associateByTo(LinkedHashMap<K, Short>(capacity),
keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n *
returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key
returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration
order of the original array.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n
*^\npublic inline fun <K> IntArray.associateBy(keySelector: (Int) -> K): Map<K, Int> {\n  val capacity =
mapCapacity(size).coerceAtLeast(16)\n  return associateByTo(LinkedHashMap<K, Int>(capacity),
keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n *
returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key
returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration
order of the original array.\n * \n * @sample

```

```

samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K>
LongArray.associateBy(keySelector: (Long) -> K): Map<K, Long> {\n    val capacity =
mapCapacity(size).coerceAtLeast(16)\n    return associateByTo(LinkedHashMap<K, Long>(capacity),
keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n
 * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same
key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry
iteration order of the original array.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K>
FloatArray.associateBy(keySelector: (Float) -> K): Map<K, Float> {\n    val capacity =
mapCapacity(size).coerceAtLeast(16)\n    return associateByTo(LinkedHashMap<K, Float>(capacity),
keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n
 * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key
returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration
order of the original array.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K>
DoubleArray.associateBy(keySelector: (Double) -> K): Map<K, Double> {\n    val
capacity = mapCapacity(size).coerceAtLeast(16)\n    return associateByTo(LinkedHashMap<K, Double>(capacity),
keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n
 * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key
returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration
order of the original array.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K>
BooleanArray.associateBy(keySelector: (Boolean) -> K): Map<K, Boolean> {\n    val capacity =
mapCapacity(size).coerceAtLeast(16)\n    return associateByTo(LinkedHashMap<K, Boolean>(capacity),
keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the
given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two
elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The
returned map preserves the entry iteration order of the original array.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K>
CharArray.associateBy(keySelector: (Char) -> K): Map<K, Char> {\n    val capacity =
mapCapacity(size).coerceAtLeast(16)\n    return associateByTo(LinkedHashMap<K, Char>(capacity),
keySelector)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by
[keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have the same key
returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration
order of the original array.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n
*/\npublic inline fun <T, K, V> Array<out T>.associateBy(keySelector: (T) -> K, valueTransform: (T) -> V):
Map<K, V> {\n    val capacity = mapCapacity(size).coerceAtLeast(16)\n    return
associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map]
containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of
the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets
added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n *
@sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n
*/\npublic inline fun <K, V> ByteArray.associateBy(keySelector: (Byte) -> K, valueTransform: (Byte) -> V):
Map<K, V> {\n    val capacity = mapCapacity(size).coerceAtLeast(16)\n    return
associateByTo(LinkedHashMap<K,
V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by
[valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two
elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * If any two

```





```

(Char) -> K, valueTransform: (Char) -> V): Map<K, V> {\n  val capacity =
mapCapacity(size).coerceAtLeast(16)\n  return associateByTo(LinkedHashMap<K, V>(capacity), keySelector,
valueTransform)\n}\n\n**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where
key is provided by the [keySelector] function applied to each element of the given array\n * and value is the element
itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the
map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic
inline fun <T, K, M : MutableMap<in K, in T>> Array<out T>.associateByTo(destination: M, keySelector: (T) ->
K): M {\n  for (element in this) {\n    destination.put(keySelector(element), element)\n  }\n  return
destination\n}\n\n**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is
provided by the [keySelector]
function applied to each element of the given array\n * and value is the element itself.\n * \n * If any two elements
would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <K, M :
MutableMap<in K, in Byte>> ByteArray.associateByTo(destination: M, keySelector: (Byte) -> K): M {\n  for
(element in this) {\n    destination.put(keySelector(element), element)\n  }\n  return destination\n}\n\n**\n *
Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the
[keySelector] function applied to each element of the given array\n * and value is the element itself.\n * \n * If any
two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n *
@sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline
fun <K, M : MutableMap<in K, in Short>> ShortArray.associateByTo(destination: M, keySelector: (Short) -> K):
M {\n  for (element in this) {\n    destination.put(keySelector(element), element)\n  }\n  return
destination\n}\n\n**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is
provided by the [keySelector] function applied to each element of the given array\n * and value is the element
itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the
map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic
inline fun <K, M : MutableMap<in K, in Int>> IntArray.associateByTo(destination: M, keySelector: (Int) -> K): M
{\n  for (element in this) {\n    destination.put(keySelector(element), element)\n  }\n  return
destination\n}\n\n**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where
key is provided by the [keySelector] function applied to each element of the given array\n * and value is the
element itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets
added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n
*/\npublic inline fun <K, M : MutableMap<in K, in Long>> LongArray.associateByTo(destination: M, keySelector:
(Long) -> K): M {\n  for (element in this) {\n    destination.put(keySelector(element), element)\n  }\n  return
destination\n}\n\n**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is
provided by the [keySelector] function applied to each element of the given array\n * and value is the element
itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the
map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n
*/\npublic inline fun <K, M : MutableMap<in K, in Float>> FloatArray.associateByTo(destination: M, keySelector:
(Float) -> K): M {\n  for (element in this) {\n    destination.put(keySelector(element), element)\n  }\n  return
destination\n}\n\n**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is
provided by the [keySelector] function applied to each element of the given array\n * and value is the element
itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the
map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic
inline fun <K, M : MutableMap<in K, in Double>> DoubleArray.associateByTo(destination: M, keySelector:
(Double) -> K): M {\n  for (element in this) {\n    destination.put(keySelector(element), element)\n  }\n  return
destination\n}\n\n**\n * Populates and returns the [destination] mutable
map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the
given array\n * and value is the element itself.\n * \n * If any two elements would have the same key returned by

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[keySelector] the last one gets added to the map.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <K, M :
MutableMap<in K, in Boolean>> BooleanArray.associateByTo(destination: M, keySelector: (Boolean) -> K): M {\n
for (element in this) {\n destination.put(keySelector(element), element)\n }\n return destination\n}\n\n/**\n
* Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the
[keySelector] function applied to each element of the given array\n * and value is the element itself.\n * \n * If any
two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n *
@sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n
*/\npublic inline fun <K, M : MutableMap<in K, in Char>> CharArray.associateByTo(destination: M, keySelector:
(Char) -> K): M {\n for (element in this) {\n destination.put(keySelector(element), element)\n }\n return
destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is
provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to
elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last
one gets added to the map.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic
inline fun <T, K, V, M : MutableMap<in K, in V>> Array<out T>.associateByTo(destination: M, keySelector: (T) -
> K, valueTransform: (T) -> V): M {\n for (element in this) {\n destination.put(keySelector(element),
valueTransform(element))\n }\n return destination\n}\n\n/**\n * Populates and returns the [destination] mutable
map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by
the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the
same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic
inline fun <K, V, M : MutableMap<in K, in V>> ByteArray.associateByTo(destination: M, keySelector: (Byte) ->
K, valueTransform: (Byte) -> V): M {\n for (element in this) {\n destination.put(keySelector(element),
valueTransform(element))\n }\n return destination\n}\n\n/**\n * Populates and returns the [destination] mutable
map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by
the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the
same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic
inline fun <K, V, M : MutableMap<in K, in V>> ShortArray.associateByTo(destination: M, keySelector: (Short) ->
K, valueTransform: (Short) -> V): M {\n for (element in this) {\n destination.put(keySelector(element),
valueTransform(element))\n }\n return destination\n}\n\n/**\n * Populates and returns the [destination] mutable
map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by
the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the
same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic
inline fun <K, V, M : MutableMap<in K, in V>> IntArray.associateByTo(destination: M, keySelector:
(Int) -> K, valueTransform: (Int) -> V): M {\n for (element in this) {\n destination.put(keySelector(element),
valueTransform(element))\n }\n return destination\n}\n\n/**\n * Populates and returns the [destination] mutable
map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by
the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the
same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic
inline fun <K, V, M : MutableMap<in K, in V>> LongArray.associateByTo(destination: M, keySelector: (Long) ->
K, valueTransform: (Long) -> V): M {\n for (element in this)
{\n destination.put(keySelector(element), valueTransform(element))\n }\n return destination\n}\n\n/**\n
* Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the
[keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the

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given array.\n \* \n \* If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n \* \n \* @sample

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samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n * \npublic inline fun <K, V, M : MutableMap<in K, in V>> FloatArray.associateByTo(destination: M, keySelector: (Float) -> K, valueTransform: (Float) -> V): M {\n for (element in this) {\n destination.put(keySelector(element), valueTransform(element))\n }\n return destination\n}\n\n\n\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector]
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function and\n \* and value is provided by the [valueTransform] function applied to elements of the given array.\n \* \n \* If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n \* \n \* @sample

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samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n * \npublic inline fun <K, V, M : MutableMap<in K, in V>> DoubleArray.associateByTo(destination: M, keySelector: (Double) -> K, valueTransform: (Double) -> V): M {\n for (element in this) {\n destination.put(keySelector(element), valueTransform(element))\n }\n return destination\n}\n\n\n\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the
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map.\n \* \n \* @sample

```
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n * \npublic inline fun <K, V, M : MutableMap<in K, in V>> BooleanArray.associateByTo(destination: M, keySelector: (Boolean) -> K, valueTransform: (Boolean) -> V): M {\n for (element in this) {\n destination.put(keySelector(element), valueTransform(element))\n }\n return destination\n}\n\n\n\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample
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samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n * \npublic inline fun <K, V, M : MutableMap<in K, in V>> CharArray.associateByTo(destination: M, keySelector: (Char)
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-> K, valueTransform: (Char) -> V): M {\n for (element in this) {\n destination.put(keySelector(element), valueTransform(element))\n }\n return destination\n}\n\n\n\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample
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samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n * \npublic inline fun <T, K, V, M : MutableMap<in K, in V>> Array<out T>.associateTo(destination: M, transform: (T) -> Pair<K, V>): M {\n for (element in this) {\n destination += transform(element)\n }\n return destination\n}\n\n\n\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * \n * If any of two pairs would have the same key the last one gets
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added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n * \npublic inline fun <K, V, M : MutableMap<in K, in V>> ByteArray.associateTo(destination: M, transform: (Byte) -> Pair<K, V>): M {\n for (element in this) {\n destination += transform(element)\n }\n return destination\n}\n\n\n\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample
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samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n * \npublic inline fun <K, V, M : MutableMap<in K, in V>> ShortArray.associateTo(destination: M, transform: (Short) -> Pair<K, V>): M {\n for (element in this) {\n destination += transform(element)\n }\n return destination\n}\n\n\n\n * Populates and returns the [destination] mutable map with
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key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample
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samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n *^public inline fun <K, V, M :
MutableMap<in K, in V>> IntArray.associateTo(destination: M, transform: (Int) -> Pair<K, V>): M {\n for
(element in this) {\n destination += transform(element)\n }\n return destination\n}\n\n/**\n * Populates and
returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each
element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the
map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n *^public
inline fun <K, V, M : MutableMap<in K, in V>> LongArray.associateTo(destination: M, transform: (Long) ->
Pair<K, V>): M {\n
for (element in this) {\n destination += transform(element)\n }\n return destination\n}\n\n/**\n * Populates
and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each
element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the
map.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n *^public
inline fun <K, V, M : MutableMap<in K, in V>> FloatArray.associateTo(destination: M, transform: (Float) ->
Pair<K, V>): M {\n for (element in this) {\n destination += transform(element)\n }\n return
destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by
[transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key
the last one gets added to the map.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n *^public inline fun <K, V, M : MutableMap<in K, in V>> DoubleArray.associateTo(destination: M, transform:
(Double) -> Pair<K, V>): M {\n for (element in this) {\n destination += transform(element)\n }\n return
destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by
[transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key
the last one gets added to the map.\n * \n * @sample
samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n *^public inline fun <K, V, M :
MutableMap<in K, in V>> BooleanArray.associateTo(destination: M, transform: (Boolean) -> Pair<K, V>): M {\n
for (element in this) {\n destination += transform(element)\n }\n return destination\n}\n\n/**\n * Populates
and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each
element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the
map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n *^public
inline fun <K, V, M : MutableMap<in K, in V>> CharArray.associateTo(destination: M, transform: (Char) ->
Pair<K, V>): M {\n for (element in this) {\n destination += transform(element)\n }\n return
destination\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced
by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets
added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n *
@sample samples.collections.Collections.Transformations.associateWith\n *^@SinceKotlin("1.4")\n *^public inline
fun <K, V> Array<out K>.associateWith(valueSelector: (K) -> V): Map<K, V> {\n val result =
LinkedHashMap<K,
V>(mapCapacity(size).coerceAtLeast(16))\n return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns
a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function
applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The
returned map preserves the entry iteration order of the original array.\n * \n * @sample
samples.collections.Collections.Transformations.associateWith\n *^@SinceKotlin("1.4")\n *^@kotlin.internal.InlineOnly\n *^public inline fun <V>
ByteArray.associateWith(valueSelector: (Byte) -> V): Map<Byte, V> {\n val result = LinkedHashMap<Byte,
V>(mapCapacity(size).coerceAtLeast(16))\n return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a
[Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function
applied to each element.\n * \n * If any two elements are equal, the last one gets added to the

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map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample
samples.collections.Collections.Transformations.associateWith\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <V>
ShortArray.associateWith(valueSelector: (Short) -> V): Map<Short, V> {\n    val result = LinkedHashMap<Short,
V>(mapCapacity(size).coerceAtLeast(16))\n    return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a
[Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function
applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The
returned map preserves the entry iteration order of the original array.\n * \n * @sample
samples.collections.Collections.Transformations.associateWith\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <V>
IntArray.associateWith(valueSelector: (Int) -> V): Map<Int, V> {\n
    val result = LinkedHashMap<Int, V>(mapCapacity(size).coerceAtLeast(16))\n    return associateWithTo(result,
valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n *
produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one
gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n *
@sample samples.collections.Collections.Transformations.associateWith\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <V>
LongArray.associateWith(valueSelector: (Long) -> V): Map<Long, V> {\n    val result = LinkedHashMap<Long,
V>(mapCapacity(size).coerceAtLeast(16))\n    return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a
[Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function
applied to each element.\n * \n * If any two elements are equal,
the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original
array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <V>
FloatArray.associateWith(valueSelector: (Float) -> V): Map<Float, V> {\n    val result = LinkedHashMap<Float,
V>(mapCapacity(size).coerceAtLeast(16))\n    return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a
[Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function
applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The
returned map preserves the entry iteration order of the original array.\n * \n * @sample
samples.collections.Collections.Transformations.associateWith\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <V>
DoubleArray.associateWith(valueSelector:
(Double) -> V): Map<Double, V> {\n    val result = LinkedHashMap<Double,
V>(mapCapacity(size).coerceAtLeast(16))\n    return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a
[Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function
applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The
returned map preserves the entry iteration order of the original array.\n * \n * @sample
samples.collections.Collections.Transformations.associateWith\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <V>
BooleanArray.associateWith(valueSelector: (Boolean) -> V): Map<Boolean, V> {\n    val result =
LinkedHashMap<Boolean, V>(mapCapacity(size).coerceAtLeast(16))\n    return associateWithTo(result,
valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n *
produced by the [valueSelector] function applied to
each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map
preserves the entry iteration order of the original array.\n * \n * @sample
samples.collections.Collections.Transformations.associateWith\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <V>
CharArray.associateWith(valueSelector: (Char) -> V): Map<Char, V> {\n    val result = LinkedHashMap<Char,

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V>(mapCapacity(size.coerceAtMost(128)).coerceAtLeast(16))\n  return associateWithTo(result,
valueSelector)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each
element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function
applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n *
 * @sample samples.collections.Collections.Transformations.associateWithTo\n * \n @SinceKotlin("1.4")\n\npublic
inline
fun <K, V, M : MutableMap<in K, in V>> Array<out K>.associateWithTo(destination: M, valueSelector: (K) ->
V): M {\n  for (element in this) {\n    destination.put(element, valueSelector(element))\n  }\n  return
destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element
of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied
to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n *
 * @sample samples.collections.Collections.Transformations.associateWithTo\n * \n @SinceKotlin("1.4")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun <V, M : MutableMap<in Byte, in V>>
ByteArray.associateWithTo(destination: M, valueSelector: (Byte) -> V): M {\n  for (element in this) {\n
  destination.put(element, valueSelector(element))\n  }\n  return destination\n}\n\n/**\n * Populates and returns the
[destination]
mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value
is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one
overwrites the former value in the map.\n * \n * @sample
samples.collections.Collections.Transformations.associateWithTo\n * \n @SinceKotlin("1.4")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun <V, M : MutableMap<in Short, in V>>
ShortArray.associateWithTo(destination: M, valueSelector: (Short) -> V): M {\n  for (element in this) {\n
  destination.put(element, valueSelector(element))\n  }\n  return destination\n}\n\n/**\n * Populates and returns the
[destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element
itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are
equal, the last one overwrites the former value in the map.\n * \n *
 * @sample samples.collections.Collections.Transformations.associateWithTo\n * \n @SinceKotlin("1.4")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun <V, M : MutableMap<in Int, in V>>
IntArray.associateWithTo(destination: M, valueSelector: (Int) -> V): M {\n  for (element in this) {\n
  destination.put(element, valueSelector(element))\n  }\n  return destination\n}\n\n/**\n * Populates and returns the
[destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element
itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are
equal, the last one overwrites the former value in the map.\n * \n * @sample
samples.collections.Collections.Transformations.associateWithTo\n * \n @SinceKotlin("1.4")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun <V, M : MutableMap<in Long, in V>>
LongArray.associateWithTo(destination: M, valueSelector: (Long) -> V): M {\n  for (element in this) {\n
  destination.put(element, valueSelector(element))\n  }\n  return destination\n}\n\n/**\n * Populates and
returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the
element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements
are equal, the last one overwrites the former value in the map.\n * \n * @sample
samples.collections.Collections.Transformations.associateWithTo\n * \n @SinceKotlin("1.4")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun <V, M : MutableMap<in Float, in V>>
FloatArray.associateWithTo(destination: M, valueSelector: (Float) -> V): M {\n  for (element in this) {\n
  destination.put(element, valueSelector(element))\n  }\n  return destination\n}\n\n/**\n * Populates and returns the
[destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element
itself and value is provided by the [valueSelector]
function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the
map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n

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*^@SinceKotlin("1.4")^@kotlin.internal.InlineOnly^public inline fun <V, M : MutableMap<in Double, in V>>
DoubleArray.associateWithTo(destination: M, valueSelector: (Double) -> V): M {^n for (element in this) {^n
destination.put(element, valueSelector(element))^n }^n return destination^n}^n/^n/^n/^n * Populates and returns the
[destination] mutable map with key-value pairs for each element of the given array,^n * where key is the element
itself and value is provided by the [valueSelector] function applied to that key.^n * ^n * If any two elements are
equal, the last one overwrites the former value in the map.^n * ^n * @sample
samples.collections.Collections.Transformations.associateWithTo^n
*^@SinceKotlin("1.4")^@kotlin.internal.InlineOnly^public inline
fun <V, M : MutableMap<in Boolean, in V>> BooleanArray.associateWithTo(destination: M, valueSelector:
(Boolean) -> V): M {^n for (element in this) {^n destination.put(element, valueSelector(element))^n }^n
return destination^n}^n/^n/^n/^n * Populates and returns the [destination] mutable map with key-value pairs for each
element of the given array,^n * where key is the element itself and value is provided by the [valueSelector] function
applied to that key.^n * ^n * If any two elements are equal, the last one overwrites the former value in the map.^n * ^n
* @sample samples.collections.Collections.Transformations.associateWithTo^n
*^@SinceKotlin("1.4")^@kotlin.internal.InlineOnly^public inline fun <V, M : MutableMap<in Char, in V>>
CharArray.associateWithTo(destination: M, valueSelector: (Char) -> V): M {^n for (element in this) {^n
destination.put(element, valueSelector(element))^n }^n return destination^n}^n/^n/^n/^n * Appends all elements to
the given
[destination] collection.^n *^npublic fun <T, C : MutableCollection<in T>> Array<out T>.toCollection(destination:
C): C {^n for (item in this) {^n destination.add(item)^n }^n return destination^n}^n/^n/^n/^n * Appends all
elements to the given [destination] collection.^n *^npublic fun <C : MutableCollection<in Byte>>
ByteArray.toCollection(destination: C): C {^n for (item in this) {^n destination.add(item)^n }^n return
destination^n}^n/^n/^n/^n * Appends all elements to the given [destination] collection.^n *^npublic fun <C :
MutableCollection<in Short>> ShortArray.toCollection(destination: C): C {^n for (item in this) {^n
destination.add(item)^n }^n return destination^n}^n/^n/^n/^n * Appends all elements to the given [destination]
collection.^n *^npublic fun <C : MutableCollection<in Int>> IntArray.toCollection(destination: C): C {^n for
(item in this) {^n destination.add(item)^n }^n return destination^n}^n/^n/^n/^n * Appends
all elements to the given [destination] collection.^n *^npublic fun <C : MutableCollection<in Long>>
LongArray.toCollection(destination: C): C {^n for (item in this) {^n destination.add(item)^n }^n return
destination^n}^n/^n/^n/^n * Appends all elements to the given [destination] collection.^n *^npublic fun <C :
MutableCollection<in Float>> FloatArray.toCollection(destination: C): C {^n for (item in this) {^n
destination.add(item)^n }^n return destination^n}^n/^n/^n/^n * Appends all elements to the given [destination]
collection.^n *^npublic fun <C : MutableCollection<in Double>> DoubleArray.toCollection(destination: C): C {^n
for (item in this) {^n destination.add(item)^n }^n return destination^n}^n/^n/^n/^n * Appends all elements to the
given [destination] collection.^n *^npublic fun <C : MutableCollection<in Boolean>>
BooleanArray.toCollection(destination: C): C {^n for (item in this) {^n destination.add(item)^n }^n
return destination^n}^n/^n/^n/^n * Appends all elements to the given [destination] collection.^n *^npublic fun <C :
MutableCollection<in Char>> CharArray.toCollection(destination: C): C {^n for (item in this) {^n
destination.add(item)^n }^n return destination^n}^n/^n/^n/^n * Returns a new [HashSet] of all elements.^n
*^npublic fun <T> Array<out T>.toHashSet(): HashSet<T> {^n return
toCollection(HashSet<T>(mapCapacity(size)))^n}^n/^n/^n/^n * Returns a new [HashSet] of all elements.^n *^npublic
fun ByteArray.toHashSet(): HashSet<Byte> {^n return
toCollection(HashSet<Byte>(mapCapacity(size)))^n}^n/^n/^n/^n * Returns a new [HashSet] of all elements.^n
*^npublic fun ShortArray.toHashSet(): HashSet<Short> {^n return
toCollection(HashSet<Short>(mapCapacity(size)))^n}^n/^n/^n/^n * Returns a new [HashSet] of all elements.^n
*^npublic fun IntArray.toHashSet(): HashSet<Int> {^n return
toCollection(HashSet<Int>(mapCapacity(size)))^n}^n/^n/^n/^n * Returns a new [HashSet] of all

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list = ArrayList<Char>(size)\n  for (item in this) list.add(item)\n  return list\n}\n\n/**\n * Returns a [Set] of all
elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun <T>
Array<out T>.toSet(): Set<T> {\n  return when (size) {\n    0 -> emptySet()\n    1 -> setOf(this[0])\n    else -
-> toCollection(LinkedHashSet<T>(mapCapacity(size)))\n  }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n *
The returned set preserves the element iteration order of the original array.\n */\npublic fun ByteArray.toSet():
Set<Byte> {\n  return when (size) {\n    0 -> emptySet()\n    1 -> setOf(this[0])\n    else ->
toCollection(LinkedHashSet<Byte>(mapCapacity(size)))\n  }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n *
The returned set preserves the element iteration order of the original array.\n */\npublic fun ShortArray.toSet():
Set<Short> {\n  return when (size) {\n    0 -> emptySet()\n    1 -> setOf(this[0])\n    else -> toCollection(LinkedHashSet<Short>(mapCapacity(size)))\n  }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun IntArray.toSet(): Set<Int> {\n  return when (size) {\n    0 -> emptySet()\n    1 ->
setOf(this[0])\n    else -> toCollection(LinkedHashSet<Int>(mapCapacity(size)))\n  }\n}\n\n/**\n * Returns a
[Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic
fun LongArray.toSet(): Set<Long> {\n  return when (size) {\n    0 -> emptySet()\n    1 -> setOf(this[0])\n    else ->
toCollection(LinkedHashSet<Long>(mapCapacity(size)))\n  }\n}\n\n/**\n * Returns a [Set] of all
elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun
FloatArray.toSet(): Set<Float> {\n  return when (size) {\n    0 -> emptySet()\n    1 -> setOf(this[0])\n    else ->
toCollection(LinkedHashSet<Float>(mapCapacity(size)))\n  }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the
original array.\n */\npublic fun DoubleArray.toSet(): Set<Double> {\n  return when (size) {\n    0 ->
emptySet()\n    1 -> setOf(this[0])\n    else -> toCollection(LinkedHashSet<Double>(mapCapacity(size)))\n  }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the
original array.\n */\npublic fun BooleanArray.toSet(): Set<Boolean> {\n  return when (size) {\n    0 ->
emptySet()\n    1 -> setOf(this[0])\n    else -> toCollection(LinkedHashSet<Boolean>(mapCapacity(size)))\n  }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the
original array.\n */\npublic fun CharArray.toSet(): Set<Char> {\n  return when (size) {\n    0 -> emptySet()\n    1 -> setOf(this[0])\n    else ->
toCollection(LinkedHashSet<Char>(mapCapacity(size.coerceAtMost(128)))\n  }\n}\n\n/**\n * Returns a single
list of all elements yielded from results of [transform] function being invoked on each element of original array.\n *
\n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <T, R> Array<out
T>.flatMap(transform: (T) -> Iterable<R>): List<R> {\n  return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of
original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun
<R> ByteArray.flatMap(transform: (Byte) -> Iterable<R>): List<R> {\n  return flatMapTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being
invoked
on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic
inline fun <R> ShortArray.flatMap(transform: (Short) -> Iterable<R>): List<R> {\n  return
flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of
[transform] function being invoked on each element of original array.\n * \n * @sample
samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R> IntArray.flatMap(transform:
(Int) -> Iterable<R>): List<R> {\n  return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single
list of all elements yielded from results of [transform] function being invoked on each element of original array.\n *
\n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R>
LongArray.flatMap(transform: (Long) -> Iterable<R>): List<R> {\n  return flatMapTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Returns a single

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list of all elements yielded from results of [transform] function being invoked on each element of original array.\n \*  
 \n \* @sample samples.collections.Collections.Transformations.flatMap\n \*^\npublic inline fun <R>  
 FloatArray.flatMap(transform: (Float) -> Iterable<R>): List<R> {\n return flatMapTo(ArrayList<R>(),  
 transform)\n}\n\n/\*\*\n \* Returns a single list of all elements yielded from results of [transform] function being  
 invoked on each element of original array.\n \* \n \* @sample  
 samples.collections.Collections.Transformations.flatMap\n \*^\npublic inline fun <R>  
 DoubleArray.flatMap(transform: (Double) -> Iterable<R>): List<R> {\n return flatMapTo(ArrayList<R>(),  
 transform)\n}\n\n/\*\*\n \* Returns a single list of all elements yielded from results of [transform] function being  
 invoked on each element of original array.\n \* \n \* @sample  
 samples.collections.Collections.Transformations.flatMap\n \*^\npublic inline fun <R>  
 BooleanArray.flatMap(transform: (Boolean) -> Iterable<R>):  
 List<R> {\n return flatMapTo(ArrayList<R>(), transform)\n}\n\n/\*\*\n \* Returns a single list of all elements  
 yielded from results of [transform] function being invoked on each element of original array.\n \* \n \* @sample  
 samples.collections.Collections.Transformations.flatMap\n \*^\npublic inline fun <R> CharArray.flatMap(transform:  
 (Char) -> Iterable<R>): List<R> {\n return flatMapTo(ArrayList<R>(), transform)\n}\n\n/\*\*\n \* Returns a single  
 list of all elements yielded from results of [transform] function being invoked on each element of original array.\n \*  
 \n \* @sample samples.collections.Collections.Transformations.flatMap\n \*^\n  
 \*^\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution  
 ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapSequence")\npublic inline fun <T, R> Array<out  
 T>.flatMap(transform: (T) -> Sequence<R>): List<R> {\n return flatMapTo(ArrayList<R>(),  
 transform)\n}\n\n/\*\*\n \* Returns a single list of all elements  
 yielded from results of [transform] function being invoked on each element\n \* and its index in the original array.\n \*  
 \n \* @sample samples.collections.Collections.Transformations.flatMapIndexed\n \*^\n  
 \*^\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution  
 ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedIterable")\n@kotlin.internal.InlineOnly\npublic  
 inline fun <T, R> Array<out T>.flatMapIndexed(transform: (index: Int, T) -> Iterable<R>): List<R> {\n return  
 flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/\*\*\n \* Returns a single list of all elements yielded from  
 results of [transform] function being invoked on each element\n \* and its index in the original array.\n \* \n \*  
 @sample samples.collections.Collections.Transformations.flatMapIndexed\n \*^\n  
 \*^\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution  
 ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedIterable")\n@kotlin.internal.InlineOnly\npublic  
 inline fun <R> ByteArray.flatMapIndexed(transform: (index: Int, Byte) -> Iterable<R>): List<R> {\n return  
 flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/\*\*\n \* Returns a single list of all elements yielded from  
 results of [transform] function being invoked on each element\n \* and its index in the original array.\n \* \n \*  
 @sample samples.collections.Collections.Transformations.flatMapIndexed\n \*^\n  
 \*^\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution  
 ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedIterable")\n@kotlin.internal.InlineOnly\npublic  
 inline fun <R> ShortArray.flatMapIndexed(transform: (index: Int, Short) -> Iterable<R>): List<R> {\n return  
 flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/\*\*\n \* Returns a single list of all elements yielded from  
 results of [transform] function being invoked on each element\n \* and its index in the original array.\n \* \n \*  
 @sample samples.collections.Collections.Transformations.flatMapIndexed\n \*^\n  
 \*^\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution  
 ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedIterable")\n@kotlin.internal.InlineOnly\npublic  
 inline fun <R> IntArray.flatMapIndexed(transform: (index: Int, Int) -> Iterable<R>): List<R> {\n return  
 flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/\*\*\n \* Returns a single list of all elements yielded from  
 results of [transform] function being invoked on each element\n \* and its index in the original array.\n \* \n \*  
 @sample samples.collections.Collections.Transformations.flatMapIndexed\n \*^\n  
 \*^\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

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ByLambdaReturnType\n@kotlin.jvm.JvmName("\flatMapIndexedIterable")\n@kotlin.internal.InlineOnly\npublic
inline fun <R> LongArray.flatMapIndexed(transform: (index: Int, Long) -> Iterable<R>): List<R> {\n  return
flatMapIndexedTo(ArrayList<R>(),
  transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being
invoked on each element\n * and its index in the original array.\n * \n * @sample
samples.collections.Collections.Transformations.flatMapIndexed\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\flatMapIndexedIterable")\n@kotlin.internal.InlineOnly\npublic
inline fun <R> FloatArray.flatMapIndexed(transform: (index: Int, Float) -> Iterable<R>): List<R> {\n  return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from
results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n *
@sample samples.collections.Collections.Transformations.flatMapIndexed\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\flatMapIndexedIterable")\n@kotlin.internal.InlineOnly\npublic
inline fun <R> DoubleArray.flatMapIndexed(transform: (index: Int, Double) -> Iterable<R>): List<R> {\n  return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from
results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n *
@sample samples.collections.Collections.Transformations.flatMapIndexed\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\flatMapIndexedIterable")\n@kotlin.internal.InlineOnly\npublic
inline fun <R> BooleanArray.flatMapIndexed(transform: (index: Int, Boolean) -> Iterable<R>): List<R> {\n
return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded
from results of [transform] function being invoked
on each element\n * and its index in the original array.\n * \n * @sample
samples.collections.Collections.Transformations.flatMapIndexed\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\flatMapIndexedIterable")\n@kotlin.internal.InlineOnly\npublic
inline fun <R> CharArray.flatMapIndexed(transform: (index: Int, Char) -> Iterable<R>): List<R> {\n  return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from
results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n *
@sample samples.collections.Collections.Transformations.flatMapIndexed\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\flatMapIndexedSequence")\n@kotlin.internal.InlineOnly\npubli
c inline fun <T, R> Array<out T>.flatMapIndexed(transform:
(index: Int, T) -> Sequence<R>): List<R> {\n  return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n *
Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index
in the original array, to the given [destination].\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\flatMapIndexedIterableTo")\n@kotlin.internal.InlineOnly\npubli
c inline fun <T, R, C : MutableCollection<in R>> Array<out T>.flatMapIndexedTo(destination: C, transform:
(index: Int, T) -> Iterable<R>): C {\n  var index = 0\n  for (element in this) {\n    val list = transform(index++,
element)\n    destination.addAll(list)\n  }\n  return destination\n}\n\n/**\n * Appends all elements yielded from
results of [transform] function being invoked on each element\n * and its index in the original array, to the given
[destination].\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\flatMapIndexedIterableTo")\n@kotlin.internal.InlineOnly\npubli
c inline fun <R, C : MutableCollection<in R>> ByteArray.flatMapIndexedTo(destination: C, transform: (index: Int,
Byte) -> Iterable<R>): C {\n  var index = 0\n  for (element in this) {\n    val list = transform(index++,

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element)\n    destination.addAll(list)\n    }\n    return destination\n}\n\n/**\n * Appends all elements yielded from
results of [transform] function being invoked on each element\n * and its index in the original array, to the given
[destination].\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedIterableTo")\n@kotlin.internal.InlineOnly\npubli
c inline fun <R, C : MutableCollection<in R>> ShortArray.flatMapIndexedTo(destination:
C, transform: (index: Int, Short) -> Iterable<R>): C {\n    var index = 0\n    for (element in this) {\n        val list =
transform(index++, element)\n        destination.addAll(list)\n    }\n    return destination\n}\n\n/**\n * Appends all
elements yielded from results of [transform] function being invoked on each element\n * and its index in the original
array, to the given [destination].\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedIterableTo")\n@kotlin.internal.InlineOnly\npubli
c inline fun <R, C : MutableCollection<in R>> IntArray.flatMapIndexedTo(destination: C, transform: (index: Int,
Int) -> Iterable<R>): C {\n    var index = 0\n    for (element in this) {\n        val list = transform(index++, element)\n
        destination.addAll(list)\n    }\n    return destination\n}\n\n/**\n * Appends all elements yielded from results of
[transform] function being invoked
on each element\n * and its index in the original array, to the given [destination].\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedIterableTo")\n@kotlin.internal.InlineOnly\npubli
c inline fun <R, C : MutableCollection<in R>> LongArray.flatMapIndexedTo(destination: C, transform: (index: Int,
Long) -> Iterable<R>): C {\n    var index = 0\n    for (element in this) {\n        val list = transform(index++,
element)\n        destination.addAll(list)\n    }\n    return destination\n}\n\n/**\n * Appends all elements yielded from
results of [transform] function being invoked on each element\n * and its index in the original array, to the given
[destination].\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedIterableTo")\n@kotlin.internal.InlineOnly\npubli
c
inline fun <R, C : MutableCollection<in R>> FloatArray.flatMapIndexedTo(destination: C, transform: (index: Int,
Float) -> Iterable<R>): C {\n    var index = 0\n    for (element in this) {\n        val list = transform(index++,
element)\n        destination.addAll(list)\n    }\n    return destination\n}\n\n/**\n * Appends all elements yielded from
results of [transform] function being invoked on each element\n * and its index in the original array, to the given
[destination].\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedIterableTo")\n@kotlin.internal.InlineOnly\npubli
c inline fun <R, C : MutableCollection<in R>> DoubleArray.flatMapIndexedTo(destination: C, transform: (index:
Int, Double) -> Iterable<R>): C {\n    var index = 0\n    for (element in this) {\n        val list = transform(index++,
element)\n        destination.addAll(list)\n    }\n    return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its
index in the original array, to the given [destination].\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedIterableTo")\n@kotlin.internal.InlineOnly\npubli
c inline fun <R, C : MutableCollection<in R>> BooleanArray.flatMapIndexedTo(destination: C, transform: (index:
Int, Boolean) -> Iterable<R>): C {\n    var index = 0\n    for (element in this) {\n        val list = transform(index++,
element)\n        destination.addAll(list)\n    }\n    return destination\n}\n\n/**\n * Appends all elements yielded from
results of [transform] function being invoked on each element\n * and its index in the original array, to the given
[destination].\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedIterableTo")\n@kotlin.internal.InlineOnly\npubli

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inline fun <R, C : MutableCollection<in R>> CharArray.flatMapIndexedTo(destination: C, transform: (index: Int, Char) -> Iterable<R>): C {\n    var index = 0\n    for (element in this) {\n        val list = transform(index++,\n        element)\n        destination.addAll(list)\n    }\n    return destination\n}\n\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n\n *\\\n@SinceKotlin("1.4")\\\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\\\n@OverloadResolutionByLambdaReturnType\\\n@kotlin.jvm.JvmName("flatMapIndexedSequenceTo")\\\n@kotlin.internal.InlineOnly\npublic inline fun <T, R, C : MutableCollection<in R>> Array<out T>.flatMapIndexedTo(destination: C, transform: (index: Int, T) -> Sequence<R>): C {\n    var index = 0\n    for (element in this) {\n        val list =\n        transform(index++, element)\n        destination.addAll(list)\n    }\n    return destination\n}\n\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n\n *\\\npublic inline fun <T, R, C : MutableCollection<in R>> Array<out T>.flatMapTo(destination: C, transform: (T) -> Iterable<R>): C {\n    for (element in this) {\n        val list = transform(element)\n        destination.addAll(list)\n    }\n    return destination\n}\n\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n\n *\\\npublic inline fun <R, C : MutableCollection<in R>> ByteArray.flatMapTo(destination: C, transform: (Byte) -> Iterable<R>): C {\n    for (element in this) {\n        val list = transform(element)\n        destination.addAll(list)\n    }\n    return destination\n}\n\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n\n *\\\npublic inline fun <R, C : MutableCollection<in R>> ShortArray.flatMapTo(destination: C, transform: (Short) -> Iterable<R>): C {\n    for (element in this) {\n        val list = transform(element)\n        destination.addAll(list)\n    }\n    return destination\n}\n\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n\n *\\\npublic inline fun <R, C : MutableCollection<in R>> IntArray.flatMapTo(destination: C, transform: (Int) -> Iterable<R>): C {\n    for (element in this) {\n        val list = transform(element)\n        destination.addAll(list)\n    }\n    return destination\n}\n\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n\n *\\\npublic inline fun <R, C : MutableCollection<in R>> LongArray.flatMapTo(destination: C, transform: (Long) -> Iterable<R>): C {\n    for (element in this) {\n        val list = transform(element)\n        destination.addAll(list)\n    }\n    return destination\n}\n\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n\n *\\\npublic inline fun <R, C : MutableCollection<in R>> FloatArray.flatMapTo(destination: C, transform: (Float) -> Iterable<R>): C {\n    for (element in this) {\n        val list = transform(element)\n        destination.addAll(list)\n    }\n    return destination\n}\n\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n\n *\\\npublic inline fun <R, C : MutableCollection<in R>> DoubleArray.flatMapTo(destination: C, transform: (Double) -> Iterable<R>): C {\n    for (element in this) {\n        val list = transform(element)\n        destination.addAll(list)\n    }\n    return destination\n}\n\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n\n *\\\npublic inline fun <R, C : MutableCollection<in R>> BooleanArray.flatMapTo(destination: C, transform: (Boolean) -> Iterable<R>): C {\n    for (element in this) {\n        val list = transform(element)\n        destination.addAll(list)\n    }\n    return destination\n}\n\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n\n *\\\npublic inline fun <R, C : MutableCollection<in R>> CharArray.flatMapTo(destination: C, transform: (Char) -> Iterable<R>): C {\n    for (element in this) {\n        val list = transform(element)\n        destination.addAll(list)\n    }\n    return destination\n}\n\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n\n *\\\n@SinceKotlin("1.4")\\\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\\\n@OverloadResolution
```

```

ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapSequenceTo")\npublic inline fun <T, R, C :
MutableCollection<in R>> Array<out T>.flatMapTo(destination: C, transform: (T) -> Sequence<R>): C {\n for
(element in this) {\n val list = transform(element)\n destination.addAll(list)\n }\n return
destination}\n}\n/**\n * Groups elements of the original array by the key returned by the given [keySelector]
function\n * applied to each element and returns a map where each group key is associated with a list of
corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the
original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun
<T, K> Array<out T>.groupBy(keySelector: (T) -> K): Map<K, List<T>>
{\n return groupByTo(LinkedHashMap<K, MutableList<T>>(), keySelector)\n}\n}\n/**\n * Groups elements of
the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a
map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves
the entry iteration order of the keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K>
ByteArray.groupBy(keySelector: (Byte) -> K): Map<K, List<Byte>> {\n return groupByTo(LinkedHashMap<K,
MutableList<Byte>>(), keySelector)\n}\n}\n/**\n * Groups elements of the original array by the key returned by the
given [keySelector] function\n * applied to each element and returns a map where each group key is associated with
a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced
from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K>
ShortArray.groupBy(keySelector: (Short) -> K): Map<K, List<Short>> {\n return
groupByTo(LinkedHashMap<K, MutableList<Short>>(), keySelector)\n}\n}\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map
where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the
entry iteration order of the keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K>
IntArray.groupBy(keySelector: (Int) -> K): Map<K, List<Int>> {\n return groupByTo(LinkedHashMap<K,
MutableList<Int>>(), keySelector)\n}\n}\n/**\n * Groups elements of the original array by the key returned by the
given [keySelector] function\n * applied to each element and returns a map where each group key is associated with
a
list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced
from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic
inline fun <K> LongArray.groupBy(keySelector: (Long) -> K): Map<K, List<Long>> {\n return
groupByTo(LinkedHashMap<K, MutableList<Long>>(), keySelector)\n}\n}\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map
where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the
entry iteration order of the keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K>
FloatArray.groupBy(keySelector: (Float) -> K): Map<K, List<Float>> {\n return groupByTo(LinkedHashMap<K,
MutableList<Float>>(), keySelector)\n}\n}\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map
where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the
entry iteration order of the keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K>
DoubleArray.groupBy(keySelector: (Double) -> K): Map<K, List<Double>> {\n return
groupByTo(LinkedHashMap<K, MutableList<Double>>(), keySelector)\n}\n}\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map
where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the
entry iteration order of the keys produced from the original array.\n * \n * @sample

```

```

samples.collections.Collections.Transformations.groupBy\n *\npublic inline fun <K>
BooleanArray.groupBy(keySelector:
  (Boolean) -> K): Map<K, List<Boolean>> {\n  return groupByTo(LinkedHashMap<K,
MutableList<Boolean>>(), keySelector)\n}\n\n**\n * Groups elements of the original array by the key returned by
the given [keySelector] function\n * applied to each element and returns a map where each group key is associated
with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys
produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*\npublic inline fun <K> CharArray.groupBy(keySelector: (Char) -> K): Map<K, List<Char>> {\n  return
groupByTo(LinkedHashMap<K, MutableList<Char>>(), keySelector)\n}\n\n**\n * Groups values returned by the
[valueTransform] function applied to each element of the original array\n * by the key returned by the given
[keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of
corresponding values.\n
  * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n *
  @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n *\npublic inline fun <T, K,
V> Array<out T>.groupBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, List<V>> {\n  return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n**\n * Groups values
returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by
the given [keySelector] function applied to the element\n * and returns a map where each group key is associated
with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys
produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n *\npublic inline fun <K, V>
ByteArray.groupBy(keySelector: (Byte) -> K, valueTransform: (Byte) -> V):
  Map<K, List<V>> {\n  return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector,
valueTransform)\n}\n\n**\n * Groups values returned by the [valueTransform] function applied to each element of
the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns
a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves
the entry iteration order of the keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n *\npublic inline fun <K, V>
ShortArray.groupBy(keySelector: (Short) -> K, valueTransform: (Short) -> V): Map<K, List<V>> {\n  return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n**\n * Groups values
returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by
the given [keySelector] function applied to the element\n
  * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned
  map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n *\npublic inline fun <K, V>
IntArray.groupBy(keySelector: (Int) -> K, valueTransform: (Int) -> V): Map<K, List<V>> {\n  return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n**\n * Groups values
returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by
the given [keySelector] function applied to the element\n * and returns a map where each group key is associated
with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys
produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n *\npublic
  inline fun <K, V> LongArray.groupBy(keySelector: (Long) -> K, valueTransform: (Long) -> V): Map<K,
  List<V>> {\n  return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector,
valueTransform)\n}\n\n**\n * Groups values returned by the [valueTransform] function applied to each element of
the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns
a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves
the entry iteration order of the keys produced from the original array.\n * \n * @sample

```

```

samples.collections.Collections.Transformations.groupByKeyAndValues\n *^\npublic inline fun <K, V>
FloatArray.groupBy(keySelector: (Float) -> K, valueTransform: (Float) -> V): Map<K, List<V>> {\n  return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values
returned by the [valueTransform] function applied to each element of the
original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a
map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the
entry iteration order of the keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeyAndValues\n *^\npublic inline fun <K, V>
DoubleArray.groupBy(keySelector: (Double) -> K, valueTransform: (Double) -> V): Map<K, List<V>> {\n
return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups
values returned by the [valueTransform] function applied to each element of the original array\n * by the key
returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is
associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the
keys produced from the original array.\n
* \n * @sample samples.collections.Collections.Transformations.groupByKeyAndValues\n *^\npublic inline fun
<K, V> BooleanArray.groupBy(keySelector: (Boolean) -> K, valueTransform: (Boolean) -> V): Map<K, List<V>>
{\n  return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n *
Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the
key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key
is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the
keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeyAndValues\n *^\npublic inline fun <K, V>
CharArray.groupBy(keySelector: (Char) -> K, valueTransform: (Char) -> V): Map<K, List<V>> {\n  return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n
* Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each
element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n *
@return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*^\npublic inline fun <T, K, M : MutableMap<in K, MutableList<T>>> Array<out T>.groupByTo(destination: M,
keySelector: (T) -> K): M {\n  for (element in this) {\n    val key = keySelector(element)\n    val list =
destination.getOrPut(key) { ArrayList<T>() }\n    list.add(element)\n  }\n  return destination\n}\n\n/**\n *
Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each
element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n *
@return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*^\npublic inline fun <K, M : MutableMap<in K, MutableList<Byte>>> ByteArray.groupByTo(destination: M,
keySelector: (Byte) -> K): M {\n  for (element in this) {\n    val key = keySelector(element)\n    val list =
destination.getOrPut(key) { ArrayList<Byte>() }\n    list.add(element)\n  }\n  return destination\n}\n\n/**\n *
Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each
element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n *
@return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*^\npublic inline fun <K, M : MutableMap<in K, MutableList<Short>>> ShortArray.groupByTo(destination: M,
keySelector: (Short) -> K): M {\n  for (element in this) {\n    val key = keySelector(element)\n    val list =
destination.getOrPut(key) { ArrayList<Short>() }\n    list.add(element)\n  }\n  return destination\n}\n\n/**\n *
Groups elements of the original array by the key returned by the given
[keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with
a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample
samples.collections.Collections.Transformations.groupBy\n *^\npublic inline fun <K, M : MutableMap<in K,
MutableList<Int>>> IntArray.groupByTo(destination: M, keySelector: (Int) -> K): M {\n  for (element in this) {\n
val key = keySelector(element)\n    val list = destination.getOrPut(key) { ArrayList<Int>() }\n

```



```

list.add(element)\n } \n return destination\n}\n\n/**\n * Groups elements of the original array by the key returned
by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key
associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n
 * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M :
MutableMap<in K, MutableList<Long>>> LongArray.groupByTo(destination: M, keySelector: (Long) -> K): M
{\n for (element in this) {\n val key = keySelector(element)\n val list = destination.getOrPut(key) {
ArrayList<Long>() }\n list.add(element)\n } \n return destination\n}\n\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the
[destination] map each group key associated with a list of corresponding elements.\n * \n * @return The
[destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline
fun <K, M : MutableMap<in K, MutableList<Float>>> FloatArray.groupByTo(destination: M, keySelector: (Float)
-> K): M {\n for (element in this) {\n val key = keySelector(element)\n val list =
destination.getOrPut(key) {
ArrayList<Float>() }\n list.add(element)\n } \n return destination\n}\n\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the
[destination] map each group key associated with a list of corresponding elements.\n * \n * @return The
[destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline
fun <K, M : MutableMap<in K, MutableList<Double>>> DoubleArray.groupByTo(destination: M, keySelector:
(Double) -> K): M {\n for (element in this) {\n val key = keySelector(element)\n val list =
destination.getOrPut(key) { ArrayList<Double>() }\n list.add(element)\n } \n return destination\n}\n\n/**\n
 * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each
element and puts to the [destination] map each group key associated with a list of corresponding elements.\n
 * \n * @return The [destination] map.\n * \n * @sample
samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M : MutableMap<in K,
MutableList<Boolean>>> BooleanArray.groupByTo(destination: M, keySelector: (Boolean) -> K): M {\n for
(element in this) {\n val key = keySelector(element)\n val list = destination.getOrPut(key) {
ArrayList<Boolean>() }\n list.add(element)\n } \n return destination\n}\n\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the
[destination] map each group key associated with a list of corresponding elements.\n * \n * @return The
[destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline
fun <K, M : MutableMap<in K, MutableList<Char>>> CharArray.groupByTo(destination: M, keySelector: (Char) -
> K): M {\n for (element in this) {\n val key = keySelector(element)\n
val list = destination.getOrPut(key) { ArrayList<Char>() }\n list.add(element)\n } \n return
destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the
original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the
[destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination]
map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic
inline fun <T, K, V, M : MutableMap<in K, MutableList<V>>> Array<out T>.groupByTo(destination: M,
keySelector: (T) -> K, valueTransform: (T) -> V): M {\n for (element in this) {\n val key =
keySelector(element)\n val list = destination.getOrPut(key) { ArrayList<V>() }\n
list.add(valueTransform(element))\n } \n return destination\n}\n\n/**\n * Groups values returned by the
[valueTransform] function
applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to
the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n
 * \n * @return The [destination] map.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V, M :
MutableMap<in K, MutableList<V>>> ByteArray.groupByTo(destination: M, keySelector: (Byte) -> K,
valueTransform: (Byte) -> V): M {\n for (element in this) {\n val key = keySelector(element)\n val list =

```



original array by the key returned by the given [keySelector] function applied to the element and puts to the [destination] map each group key associated with a list of corresponding values. @return The [destination] map. @sample samples.collections.Collections.Transformations.groupByKeyAndValues

```
public inline fun <K, V, M : MutableMap<in K, MutableList<V>>> CharArray.groupByTo(destination: M, keySelector: (Char) -> K, valueTransform: (Char) -> V): M {
    for (element in this) {
        val key = keySelector(element)
        val list = destination.getOrPut(key) { ArrayList<V>() }
        list.add(valueTransform(element))
    }
    return destination
}
```

Creates a [Grouping] source from an array to be used later with one of group-and-fold operations using the specified [keySelector] function to extract a key from each element. @sample samples.collections.Grouping.groupingByEachCount

```
@SinceKotlin("1.1")
public inline fun <T, K> Array<out T>.groupingBy(crossinline keySelector: (T) -> K): Grouping<T, K> {
    return object : Grouping<T, K> {
        override fun sourceIterator(): Iterator<T> = this@groupingBy.iterator()
        override fun keyOf(element: T): K = keySelector(element)
    }
}
```

Returns a list containing the results of applying the given

[transform] function to each element in the original array. @sample samples.collections.Collections.Transformations.map

```
public inline fun <T, R> Array<out T>.map(transform: (T) -> R): List<R> {
    return mapTo(ArrayList<R>(size), transform)
}
```

Returns a list containing the results of applying the given [transform] function to each element in the original array. @sample samples.collections.Collections.Transformations.map

```
public inline fun <R> ByteArray.map(transform: (Byte) -> R): List<R> {
    return mapTo(ArrayList<R>(size), transform)
}
```

Returns a list containing the results of applying the given [transform] function to each element in the original array. @sample samples.collections.Collections.Transformations.map

```
public inline fun <R> ShortArray.map(transform: (Short) -> R): List<R> {
    return mapTo(ArrayList<R>(size), transform)
}
```

Returns a list containing the results of applying the

given [transform] function to each element in the original array. @sample samples.collections.Collections.Transformations.map

```
public inline fun <R> IntArray.map(transform: (Int) -> R): List<R> {
    return mapTo(ArrayList<R>(size), transform)
}
```

Returns a list containing the results of applying the given [transform] function to each element in the original array. @sample samples.collections.Collections.Transformations.map

```
public inline fun <R> LongArray.map(transform: (Long) -> R): List<R> {
    return mapTo(ArrayList<R>(size), transform)
}
```

Returns a list containing the results of applying the given [transform] function to each element in the original array. @sample samples.collections.Collections.Transformations.map

```
public inline fun <R> FloatArray.map(transform: (Float) -> R): List<R> {
    return mapTo(ArrayList<R>(size), transform)
}
```

Returns a list containing the results of applying the

given [transform] function to each element in the original array. @sample samples.collections.Collections.Transformations.map

```
public inline fun <R> DoubleArray.map(transform: (Double) -> R): List<R> {
    return mapTo(ArrayList<R>(size), transform)
}
```

Returns a list containing the results of applying the given [transform] function to each element in the original array. @sample samples.collections.Collections.Transformations.map

```
public inline fun <R> BooleanArray.map(transform: (Boolean) -> R): List<R> {
    return mapTo(ArrayList<R>(size), transform)
}
```

Returns a list containing the results of applying the given [transform] function to each element in the original array. @sample samples.collections.Collections.Transformations.map

```
public inline fun <R> CharArray.map(transform: (Char) -> R): List<R> {
    return mapTo(ArrayList<R>(size), transform)
}
```

Returns a list containing the results of applying

the given [transform] function to each element and its index in the original array. @param [transform] function that takes the index of an element and the element itself and returns the result of the transform applied to the element. @sample samples.collections.Collections.Transformations.mapIndexed

```
public inline fun <T, R> Array<out T>.mapIndexed(transform: (index: Int, T) -> R): List<R> {
    return mapIndexedTo(ArrayList<R>(size), transform)
}
```

Returns a list containing the results of

applying the given [transform] function to each element and its index in the original array. @param [transform] function that takes the index of an element and the element itself and returns the result of the transform applied to the element.

```

public inline fun <R> ByteArray.mapIndexed(transform: (index: Int, Byte) -> R): List<R> {
    return mapIndexedTo(ByteArray(size), transform)
}

```

Returns a list containing the results of applying the given [transform] function to each element and its index in the original array. @param [transform] function that takes the index of an element and the element itself and returns the result of the transform applied to the element.

```

public inline fun <R> ShortArray.mapIndexed(transform: (index: Int, Short) -> R): List<R> {
    return mapIndexedTo(ShortArray(size), transform)
}

```

Returns a list containing the results of applying the given [transform] function to each element and its index in the original array. @param [transform] function that takes the index of an element and the element itself and returns the result of the transform applied to the element.

```

public inline fun <R> IntArray.mapIndexed(transform: (index: Int, Int) -> R): List<R> {
    return mapIndexedTo(IntArray(size), transform)
}

```

Returns a list containing the results of applying the given [transform] function to each element and its index in the original array. @param [transform] function that takes the index of an element and the element itself and returns the result of the transform applied to the element.

```

public inline fun <R> LongArray.mapIndexed(transform: (index: Int, Long) -> R): List<R> {
    return mapIndexedTo(LongArray(size), transform)
}

```

Returns a list containing the results of applying the given [transform] function to each element and its index in the original array. @param [transform] function that takes the index of an element and the element itself and returns the result of the transform applied to the element.

```

public inline fun <R> FloatArray.mapIndexed(transform: (index: Int, Float) -> R): List<R> {
    return mapIndexedTo(FloatArray(size), transform)
}

```

Returns a list containing the results of applying the given [transform] function to each element and its index in the original array. @param [transform] function that takes the index of an element and the element itself and returns the result of the transform applied to the element.

```

public inline fun <R> DoubleArray.mapIndexed(transform: (index: Int, Double) -> R): List<R> {
    return mapIndexedTo(DoubleArray(size), transform)
}

```

Returns a list containing the results of applying the given [transform] function to each element and its index in the original array. @param [transform] function that takes the index of an element and the element itself and returns the result of the transform applied to the element.

```

public inline fun <R> BooleanArray.mapIndexed(transform: (index: Int, Boolean) -> R): List<R> {
    return mapIndexedTo(BooleanArray(size), transform)
}

```

Returns a list containing the results of applying the given [transform] function to each element and its index in the original array. @param [transform] function that takes the index of an element and the element itself and returns the result of the transform applied to the element.

```

public inline fun <R> CharArray.mapIndexed(transform: (index: Int, Char) -> R): List<R> {
    return mapIndexedTo(CharArray(size), transform)
}

```

Returns a list containing only the non-null results of applying the given [transform] function to each element and its index in the original array. @param [transform] function that takes the index of an element and the element itself and returns the result of the transform applied to the element.

```

public inline fun <T, R : Any> Array<out T>.mapIndexedNotNull(transform: (index: Int, T) -> R?): List<R> {
    return mapIndexedNotNullTo(Array(), transform)
}

```

Applies the given [transform] function to each element and its index in the original array and appends only the non-null results to the given [destination]. @param [transform] function that takes the index of an element and the element itself and returns the result of the transform applied to the element.

```

public inline fun <T, R : Any, C : MutableCollection<in R>> Array<out T>.mapIndexedNotNullTo(destination: C, transform: (index: Int, T) -> R?): C {
    forIndexed { index, element -> transform(index, element)?.let { destination.add(it) }
    return destination
}

```

Applies the given [transform] function to each element and its index in the original array and appends the results to the given [destination]. @param [transform] function that takes the index of an element and the element itself and returns the result of the transform applied to the element.

```

public inline fun <T, R, C : MutableCollection<in R>> Array<out T>.mapIndexedTo(destination: C, transform: (index: Int, T) ->

```



MutableCollection<in R>>

Array<out T>.mapNotNullTo(destination: C, transform: (T) -> R?): C {\n forEach { element -> transform(element)?.let { destination.add(it) } }\n return destination}\n\n/\*\*\n \* Applies the given [transform] function to each element of the original array\n \* and appends the results to the given [destination].\n \*/\npublic inline fun <T, R, C : MutableCollection<in R>> Array<out T>.mapTo(destination: C, transform: (T) -> R): C {\n for (item in this)\n destination.add(transform(item))\n return destination}\n\n/\*\*\n \* Applies the given [transform] function to each element of the original array\n \* and appends the results to the given [destination].\n \*/\npublic inline fun <R, C : MutableCollection<in R>> ByteArray.mapTo(destination: C, transform: (Byte) -> R): C {\n for (item in this)\n destination.add(transform(item))\n return destination}\n\n/\*\*\n \* Applies the given [transform] function to each element of the original array\n \* and appends the results to the given [destination].\n \*/\npublic inline fun <R, C : MutableCollection<in R>>

ShortArray.mapTo(destination: C, transform: (Short) -> R): C {\n for (item in this)\n destination.add(transform(item))\n return destination}\n\n/\*\*\n \* Applies the given [transform] function to each element of the original array\n \* and appends the results to the given [destination].\n \*/\npublic inline fun <R, C : MutableCollection<in R>> IntArray.mapTo(destination: C, transform: (Int) -> R): C {\n for (item in this)\n destination.add(transform(item))\n return destination}\n\n/\*\*\n \* Applies the given [transform] function to each element of the original array\n \* and appends the results to the given [destination].\n \*/\npublic inline fun <R, C : MutableCollection<in R>> LongArray.mapTo(destination: C, transform: (Long) -> R): C {\n for (item in this)\n destination.add(transform(item))\n return destination}\n\n/\*\*\n \* Applies the given [transform] function to each element of the original array\n \* and appends the results to the given [destination].\n \*/\npublic inline fun <R, C : MutableCollection<in R>> FloatArray.mapTo(destination: C, transform: (Float) -> R): C {\n for (item in this)\n destination.add(transform(item))\n return destination}\n\n/\*\*\n \* Applies the given [transform] function to each element of the original array\n \* and appends the results to the given [destination].\n \*/\npublic inline fun <R, C : MutableCollection<in R>> DoubleArray.mapTo(destination: C, transform: (Double) -> R): C {\n for (item in this)\n destination.add(transform(item))\n return destination}\n\n/\*\*\n \* Applies the given [transform] function to each element of the original array\n \* and appends the results to the given [destination].\n \*/\npublic inline fun <R, C : MutableCollection<in R>> BooleanArray.mapTo(destination: C, transform: (Boolean) -> R): C {\n for (item in this)\n destination.add(transform(item))\n

return destination}\n\n/\*\*\n \* Applies the given [transform] function to each element of the original array\n \* and appends the results to the given [destination].\n \*/\npublic inline fun <R, C : MutableCollection<in R>>

CharArray.mapTo(destination: C, transform: (Char) -> R): C {\n for (item in this)\n destination.add(transform(item))\n return destination}\n\n/\*\*\n \* Returns a lazy [Iterable] that wraps each element of the original array\n \* into an [IndexedValue] containing the index of that element and the element itself.\n \*/\npublic fun <T> Array<out T>.withIndex(): Iterable<IndexedValue<T>> {\n return IndexingIterable { iterator() }\n}\n\n/\*\*\n \* Returns a lazy [Iterable] that wraps each element of the original array\n \* into an [IndexedValue] containing the index of that element and the element itself.\n \*/\npublic fun ByteArray.withIndex(): Iterable<IndexedValue<Byte>> {\n return IndexingIterable { iterator() }\n}\n\n/\*\*\n \* Returns a lazy [Iterable] that wraps each element of the original array\n \* into an [IndexedValue] containing the index of that element and the element itself.\n \*/\npublic fun ShortArray.withIndex(): Iterable<IndexedValue<Short>> {\n return IndexingIterable { iterator() }\n}\n\n/\*\*\n \* Returns a lazy [Iterable] that wraps each element of the original array\n \* into an [IndexedValue] containing the index of that element and the element itself.\n \*/\npublic fun IntArray.withIndex(): Iterable<IndexedValue<Int>> {\n return IndexingIterable { iterator() }\n}\n\n/\*\*\n \* Returns a lazy [Iterable] that wraps each element of the original array\n \* into an [IndexedValue] containing the index of that element and the element itself.\n \*/\npublic fun LongArray.withIndex(): Iterable<IndexedValue<Long>> {\n return IndexingIterable { iterator() }\n}\n\n/\*\*\n \* Returns a lazy [Iterable] that wraps each element of the original array\n \* into an [IndexedValue] containing the index of that element and the element itself.\n \*/\n



```

in this) {\n    val key = selector(e)\n    if (set.add(key))\n        list.add(e)\n    }\n    return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys returned by the given [selector]\n * function.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K>\nByteArray.distinctBy(selector: (Byte) -> K): List<Byte> {\n    val set = HashSet<K>()\n    val list =\n    ArrayList<Byte>()\n    for (e in this) {\n        val key = selector(e)\n        if (set.add(key))\n            list.add(e)\n    }\n    return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys\n * returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they\n * were in the source array.\n * \n * @sample\n * samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K>\nShortArray.distinctBy(selector: (Short) -> K): List<Short> {\n    val set =\n    HashSet<K>()\n    val list = ArrayList<Short>()\n    for (e in this) {\n        val key = selector(e)\n        if\n        (set.add(key))\n            list.add(e)\n    }\n    return list\n}\n\n/**\n * Returns a list containing only elements from the\n * given array\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting\n * list are in the same order as they were in the source array.\n * \n * @sample\n * samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K>\nIntArray.distinctBy(selector: (Int) -> K): List<Int> {\n    val set = HashSet<K>()\n    val list = ArrayList<Int>()\n    for (e in this) {\n        val key = selector(e)\n        if (set.add(key))\n            list.add(e)\n    }\n    return list\n}\n\n/**\n * Returns a list containing only elements from\n * the given array\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the\n * resulting list are in the same order as they were in the source array.\n * \n * @sample\n * samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K>\nLongArray.distinctBy(selector: (Long) -> K): List<Long> {\n    val set = HashSet<K>()\n    val list =\n    ArrayList<Long>()\n    for (e in this) {\n        val key = selector(e)\n        if (set.add(key))\n            list.add(e)\n    }\n    return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys\n * returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they\n * were in the source array.\n * \n * @sample\n * samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K>\nFloatArray.distinctBy(selector: (Float) -> K): List<Float> {\n    val set = HashSet<K>()\n    val list = ArrayList<Float>()\n    for (e in this) {\n        val key = selector(e)\n        if (set.add(key))\n            list.add(e)\n    }\n    return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having\n * distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same\n * order as they were in the source array.\n * \n * @sample\n * samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K>\nDoubleArray.distinctBy(selector: (Double) -> K): List<Double> {\n    val set = HashSet<K>()\n    val list =\n    ArrayList<Double>()\n    for (e in this) {\n        val key = selector(e)\n        if (set.add(key))\n            list.add(e)\n    }\n    return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys\n * returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they\n * were\n * in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K>\nBooleanArray.distinctBy(selector: (Boolean) -> K): List<Boolean> {\n    val set =\n    HashSet<K>()\n    val list = ArrayList<Boolean>()\n    for (e in this) {\n        val key = selector(e)\n        if\n        (set.add(key))\n            list.add(e)\n    }\n    return list\n}\n\n/**\n * Returns a list containing only elements from the\n * given array\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting\n * list are in the same order as they were in the source array.\n * \n * @sample\n * samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K>\nCharArray.distinctBy(selector: (Char) -> K): List<Char> {\n    val set = HashSet<K>()\n    val list =\n    ArrayList<Char>()\n    for (e in this) {\n        val key = selector(e)\n        if (set.add(key))\n            list.add(e)\n    }\n}

```



```

return
list<T>.intersect(other: Iterable<T>): Set<T> {
    val set = this.toMutableSet()
    set.retainAll(other)
    return set
}

Returns a set containing all elements that are contained by both this array and the specified collection. The returned set preserves the element iteration order of the original array. To get a set containing all elements that are contained at least in one of these collections use [union].

public infix fun <T> Array<out T>.intersect(other: Iterable<T>): Set<T> {
    val set = this.toMutableSet()
    set.retainAll(other)
    return set
}

Returns a set containing all elements that are contained by both this array and the specified collection. The returned set preserves the element iteration order of the original array. To get a set containing all elements that are contained at least in one of these collections use [union].

public infix fun ByteArray.intersect(other: Iterable<Byte>): Set<Byte> {
    val set = this.toMutableSet()
    set.retainAll(other)
    return set
}

Returns a set containing all elements that are contained by both this array and the specified collection. The returned set preserves the element iteration order of the original array. To get a set containing all elements that are contained at least in one of these collections use [union].

public infix fun ShortArray.intersect(other: Iterable<Short>): Set<Short> {
    val set = this.toMutableSet()
    set.retainAll(other)
    return set
}

Returns a set containing all elements that are contained by both this array and the specified collection. The returned set preserves the element iteration order of the original array. To get a set containing all elements that are contained at least in one of these collections use [union].

public infix fun IntArray.intersect(other: Iterable<Int>): Set<Int> {
    val set = this.toMutableSet()
    set.retainAll(other)
    return set
}

Returns a set containing all elements that are contained by both this array and the specified collection. The returned set preserves the element iteration order of the original array. To get a set containing all elements that are contained at least in one of these collections use [union].

public infix fun LongArray.intersect(other: Iterable<Long>): Set<Long> {
    val set = this.toMutableSet()
    set.retainAll(other)
    return set
}

Returns a set containing all elements that are contained by both this array and the specified collection. The returned set preserves the element iteration order of the original array. To get a set containing all elements that are contained at least in one of these collections use [union].

public infix fun FloatArray.intersect(other: Iterable<Float>): Set<Float> {
    val set = this.toMutableSet()
    set.retainAll(other)
    return set
}

Returns a set containing all elements that are contained by both this array and the specified collection. The returned set preserves the element iteration order of the original array. To get a set containing all elements that are contained at least in one of these collections use [union].

public infix fun DoubleArray.intersect(other: Iterable<Double>): Set<Double> {
    val set = this.toMutableSet()
    set.retainAll(other)
    return set
}

Returns a set containing all elements that are contained by both this array and the specified collection. The returned set preserves the element iteration order of the original array. To get a set containing all elements that are contained at least in one of these collections use [union].

public infix fun BooleanArray.intersect(other: Iterable<Boolean>): Set<Boolean> {
    val set = this.toMutableSet()
    set.retainAll(other)
    return set
}

Returns a set containing all elements that are contained by both this array and the specified collection. The returned set preserves the element iteration order of the original array. To get a set containing all elements that are contained at least in one of these collections use [union].

public infix fun CharArray.intersect(other: Iterable<Char>): Set<Char> {
    val set = this.toMutableSet()
    set.retainAll(other)
    return set
}

Returns a set containing all elements that are contained by this array and not contained by the specified collection. The returned set preserves the element iteration order of the original array.

public infix fun <T> Array<out T>.subtract(other: Iterable<T>): Set<T> {
    val set = this.toMutableSet()
    set.removeAll(other)
    return set
}

Returns a set containing all elements that are contained by this array and not contained by the specified collection. The returned set preserves the element iteration order of the original array.

public infix fun ByteArray.subtract(other: Iterable<Byte>): Set<Byte> {
    val set = this.toMutableSet()
    set.removeAll(other)
    return set
}

Returns a set containing all elements that are contained by this array and not contained by the specified collection. The returned set

```

preserves the element iteration order of the original array.

```

public infix fun ShortArray.subtract(other:
Iterable<Short>): Set<Short> {
    val set = this.toMutableSet()
    set.removeAll(other)
    return set
}

```

\* Returns a set containing all elements that are contained by this array and not contained by the specified collection.

```

public infix fun
IntArray.subtract(other: Iterable<Int>): Set<Int> {
    val set = this.toMutableSet()
    set.removeAll(other)
    return set
}

```

\* Returns a set containing all elements that are contained by this array and not contained by the specified collection.

```

public infix fun LongArray.subtract(other: Iterable<Long>): Set<Long>
{
    val set = this.toMutableSet()
    set.removeAll(other)
    return set
}

```

\* Returns a set containing all elements that are contained by this array and not contained by the specified collection.

```

public infix fun FloatArray.subtract(other:
Iterable<Float>): Set<Float> {
    val set = this.toMutableSet()
    set.removeAll(other)
    return set
}

```

\* Returns a set containing all elements that are contained by this array and not contained by the specified collection.

```

public infix fun
DoubleArray.subtract(other: Iterable<Double>): Set<Double> {
    val set = this.toMutableSet()
    set.removeAll(other)
    return set
}

```

\* Returns a set containing all elements that are contained by this array and not contained by the specified collection.

```

public infix fun BooleanArray.subtract(other: Iterable<Boolean>):
Set<Boolean> {
    val set = this.toMutableSet()
    set.removeAll(other)
    return set
}

```

\* Returns a set containing all elements that are contained by this array and not contained by the specified collection.

```

public infix fun
CharArray.subtract(other: Iterable<Char>): Set<Char> {
    val set = this.toMutableSet()
    set.removeAll(other)
    return set
}

```

\* Returns a new [MutableSet] containing all distinct elements from the given array.

```

public fun <T> Array<out
T>.toMutableSet(): MutableSet<T> {
    return toCollection(LinkedHashSet<T>(mapCapacity(size)))
}

```

\* Returns a new [MutableSet] containing all distinct elements from the given array.

```

public fun ByteArray.toMutableSet():
MutableSet<Byte> {
    return toCollection(LinkedHashSet<Byte>(mapCapacity(size)))
}

```

\* Returns a new [MutableSet] containing all distinct elements from the given array.

```

public fun ShortArray.toMutableSet(): MutableSet<Short> {
    return toCollection(LinkedHashSet<Short>(mapCapacity(size)))
}

```

\* Returns a new [MutableSet] containing all distinct elements from the given array.

```

public fun IntArray.toMutableSet(): MutableSet<Int> {
    return
toCollection(LinkedHashSet<Int>(mapCapacity(size)))
}

```

\* Returns a new [MutableSet] containing all distinct elements from the given array.

```

public fun LongArray.toMutableSet(): MutableSet<Long> {
    return
toCollection(LinkedHashSet<Long>(mapCapacity(size)))
}

```

\* Returns a new [MutableSet] containing all distinct elements from the given array.

```

public fun FloatArray.toMutableSet(): MutableSet<Float> {
    return
toCollection(LinkedHashSet<Float>(mapCapacity(size)))
}

```

\* Returns a new [MutableSet] containing all distinct elements from the given array.

```

public fun DoubleArray.toMutableSet(): MutableSet<Double> {
    return
toCollection(LinkedHashSet<Double>(mapCapacity(size)))
}

```

\* Returns a new [MutableSet] containing all distinct elements from the given array.

```

public fun BooleanArray.toMutableSet(): MutableSet<Boolean> {
    return
toCollection(LinkedHashSet<Boolean>(mapCapacity(size)))
}

```

\* Returns a new [MutableSet] containing all distinct elements from the given array.

```

original array.\n */\npublic fun CharArray.toMutableSet(): MutableSet<Char> {\n    return
toCollection(LinkedHashSet<Char>(mapCapacity(size.coerceAtMost(128))))\n}\n\n/**\n * Returns a set containing
all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the
original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of
the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use
[intersect].\n */\npublic infix fun <T> Array<out T>.union(other: Iterable<T>):
Set<T> {\n    val set = this.toMutableSet()\n    set.addAll(other)\n    return set\n}\n\n/**\n * Returns a set containing
all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the
original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of
the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use
[intersect].\n */\npublic infix fun ByteArray.union(other: Iterable<Byte>): Set<Byte> {\n    val set =
this.toMutableSet()\n    set.addAll(other)\n    return set\n}\n\n/**\n * Returns a set containing all distinct elements
from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those
elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n *
\n * To get a set containing all elements that are contained
in both collections use [intersect].\n */\npublic infix fun ShortArray.union(other: Iterable<Short>): Set<Short> {\n
val set = this.toMutableSet()\n    set.addAll(other)\n    return set\n}\n\n/**\n * Returns a set containing all distinct
elements from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n
* Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other]
collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n
\n */\npublic infix fun IntArray.union(other: Iterable<Int>): Set<Int> {\n    val set = this.toMutableSet()\n
set.addAll(other)\n    return set\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n
* \n * The returned set preserves the element iteration order of the original array.\n * Those elements of the [other]
collection that are unique are iterated in the end\n
* \n * To get a set containing all elements that are contained in both
collections use [intersect].\n */\npublic infix fun LongArray.union(other: Iterable<Long>): Set<Long> {\n    val set
= this.toMutableSet()\n    set.addAll(other)\n    return set\n}\n\n/**\n * Returns a set containing all distinct elements
from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those
elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n
* \n * To get a set containing all elements that are contained
in both collections use [intersect].\n */\npublic infix fun FloatArray.union(other: Iterable<Float>): Set<Float> {\n
val set = this.toMutableSet()\n    set.addAll(other)\n    return set\n}\n\n/**\n * Returns a set containing all distinct
elements from both collections.\n * \n * The returned set preserves the element iteration order of
the original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order
of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use
[intersect].\n */\npublic infix fun DoubleArray.union(other: Iterable<Double>): Set<Double> {\n    val set =
this.toMutableSet()\n    set.addAll(other)\n    return set\n}\n\n/**\n * Returns a set containing all distinct elements
from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those
elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n
* \n * To get a set containing all elements that are contained
in both collections use [intersect].\n */\npublic infix fun BooleanArray.union(other: Iterable<Boolean>): Set<Boolean> {\n
val set = this.toMutableSet()\n    set.addAll(other)\n    return set\n}\n\n/**\n * Returns a set containing
all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the
original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of
the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use
[intersect].\n */\npublic infix fun CharArray.union(other: Iterable<Char>): Set<Char> {\n    val set =
this.toMutableSet()\n    set.addAll(other)\n    return set\n}\n\n/**\n * Returns `true` if all elements match the given
[predicate].\n * \n * Note that if the array contains no elements, the function returns `true`\n * because there are no

```

elements in it that `_do not_` match the predicate.  
 \* See a more detailed explanation of this logic concept in ["Vacuous truth"](https://en.wikipedia.org/wiki/Vacuous\_truth) article.  
 \* @sample  
 samples.collections.Collections.Aggregates.all\n \* \n \* @sample  
 samples.collections.Collections.Aggregates.all\n \* \n \* public inline fun <T> Array<out T>.all(predicate: (T) -> Boolean): Boolean {\n for (element in this) if (!predicate(element)) return false\n return true\n}\n\n\*\*\n \* Returns `true` if all elements match the given [predicate].\n \* \n \* Note that if the array contains no elements, the function returns `true` because there are no elements in it that `_do not_` match the predicate.  
 \* See a more detailed explanation of this logic concept in ["Vacuous truth"](https://en.wikipedia.org/wiki/Vacuous\_truth) article.  
 \* @sample  
 samples.collections.Collections.Aggregates.all\n \* \n \* public inline fun ByteArray.all(predicate: (Byte) -> Boolean): Boolean {\n for (element in this) if (!predicate(element)) return false\n return true\n}\n\n\*\*\n \* Returns `true` if all elements match the given [predicate].\n \* \n \* Note that if the array contains no elements, the function returns `true` because there are no elements in it that `_do not_` match the predicate.  
 \* See a more detailed explanation of this logic concept in ["Vacuous truth"](https://en.wikipedia.org/wiki/Vacuous\_truth) article.  
 \* @sample  
 samples.collections.Collections.Aggregates.all\n \* \n \* public inline fun ShortArray.all(predicate: (Short) -> Boolean): Boolean {\n for (element in this) if (!predicate(element)) return false\n return true\n}\n\n\*\*\n \* Returns `true` if all elements match the given [predicate].\n \* \n \* Note that if the array contains no elements, the function returns `true` because there are no elements in it that `_do not_` match the predicate.  
 \* See a more detailed explanation of this logic concept in ["Vacuous truth"](https://en.wikipedia.org/wiki/Vacuous\_truth) article.  
 \* @sample  
 samples.collections.Collections.Aggregates.all\n \* \n \* public inline fun IntArray.all(predicate: (Int) -> Boolean): Boolean {\n for (element in this) if (!predicate(element)) return false\n return true\n}\n\n\*\*\n \* Returns `true` if all elements match the given [predicate].\n \* \n \* Note that if the array contains no elements, the function returns `true` because there are no elements in it that `_do not_` match the predicate.  
 \* See a more detailed explanation of this logic concept in ["Vacuous truth"](https://en.wikipedia.org/wiki/Vacuous\_truth) article.  
 \* @sample  
 samples.collections.Collections.Aggregates.all\n \* \n \* public inline fun LongArray.all(predicate: (Long) -> Boolean): Boolean {\n for (element in this) if (!predicate(element)) return false\n return true\n}\n\n\*\*\n \* Returns `true` if all elements match the given [predicate].\n \* \n \* Note that if the array contains no elements, the function returns `true` because there are no elements in it that `_do not_` match the predicate.  
 \* See a more detailed explanation of this logic concept in ["Vacuous truth"](https://en.wikipedia.org/wiki/Vacuous\_truth) article.  
 \* @sample  
 samples.collections.Collections.Aggregates.all\n \* \n \* public inline fun FloatArray.all(predicate: (Float) -> Boolean): Boolean {\n for (element in this) if (!predicate(element)) return false\n return true\n}\n\n\*\*\n \* Returns `true` if all elements match the given [predicate].\n \* \n \* Note that if the array contains no elements, the function returns `true` because there are no elements in it that `_do not_` match the predicate.  
 \* See a more detailed explanation of this logic concept in ["Vacuous truth"](https://en.wikipedia.org/wiki/Vacuous\_truth) article.  
 \* @sample  
 samples.collections.Collections.Aggregates.all\n \* \n \* public inline fun DoubleArray.all(predicate: (Double) -> Boolean): Boolean {\n for (element in this) if (!predicate(element)) return false\n return true\n}\n\n\*\*\n \* Returns `true` if all elements match the given [predicate].\n \* \n \* Note that if the array contains no elements, the function returns `true` because there are no elements in it that `_do not_` match the predicate.  
 \* See a more detailed explanation of this logic concept in ["Vacuous truth"](https://en.wikipedia.org/wiki/Vacuous\_truth) article.  
 \* @sample  
 samples.collections.Collections.Aggregates.all\n \* \n \* public inline fun BooleanArray.all(predicate: (Boolean) -> Boolean): Boolean {\n for (element in this) if (!predicate(element)) return false\n return true\n}\n\n\*\*\n \* Returns `true` if all elements match the given [predicate].\n \* \n \* Note that if the array contains no elements, the function returns `true` because there are no elements in it that `_do not_` match the predicate.  
 \* See a more detailed explanation of this logic concept in ["Vacuous truth"](https://en.wikipedia.org/wiki/Vacuous\_truth) article.  
 \* @sample  
 samples.collections.Collections.Aggregates.all\n \* \n \* public inline fun CharArray.all(predicate: (Char) -> Boolean): Boolean {\n for (element in this) if (!predicate(element)) return false\n return true\n}\n\n\*\*\n \* Returns `true` if

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array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n * \n\npublic fun
<T>
Array<out T>.any(): Boolean {\n    return !isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one
element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n * \n\npublic fun ByteArray.any():
Boolean {\n    return !isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample
samples.collections.Collections.Aggregates.any\n * \n\npublic fun ShortArray.any(): Boolean {\n    return
!isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample
samples.collections.Collections.Aggregates.any\n * \n\npublic fun IntArray.any(): Boolean {\n    return
!isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample
samples.collections.Collections.Aggregates.any\n * \n\npublic fun LongArray.any(): Boolean {\n    return
!isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample
samples.collections.Collections.Aggregates.any\n * \n\npublic fun FloatArray.any(): Boolean
{\n    return !isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample
samples.collections.Collections.Aggregates.any\n * \n\npublic fun DoubleArray.any(): Boolean {\n    return
!isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample
samples.collections.Collections.Aggregates.any\n * \n\npublic fun BooleanArray.any(): Boolean {\n    return
!isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample
samples.collections.Collections.Aggregates.any\n * \n\npublic fun CharArray.any(): Boolean {\n    return
!isEmpty()\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.any\n * \n\npublic inline fun <T> Array<out
T>.any(predicate: (T) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return true\n    return
false\n}\n\n/**\n * Returns `true` if at least one element matches
the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.any\n * \n\npublic
inline fun <T> Array<out T>.any(predicate: (T) -> Boolean): Boolean {\n    for (element in this) if (predicate(element))
return true\n    return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n *
@sample samples.collections.Collections.Aggregates.any\n * \n\npublic inline fun
ByteArray.any(predicate: (Byte) -> Boolean): Boolean {\n    for (element in this) if (predicate(element))
return true\n    return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n *
@sample samples.collections.Collections.Aggregates.any\n * \n\npublic inline fun
ShortArray.any(predicate: (Short) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return
true\n    return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n *
@sample samples.collections.Collections.Aggregates.any\n * \n\npublic inline fun
IntArray.any(predicate: (Int) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return true\n
return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n *
@sample samples.collections.Collections.Aggregates.any\n * \n\npublic inline fun
LongArray.any(predicate: (Long) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return
true\n    return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n *
@sample samples.collections.Collections.Aggregates.any\n * \n\npublic inline fun
FloatArray.any(predicate: (Float) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return
true\n    return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n *
@sample samples.collections.Collections.Aggregates.any\n * \n\npublic inline fun
DoubleArray.any(predicate: (Double) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return
true\n    return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n *
@sample samples.collections.Collections.Aggregates.any\n * \n\npublic inline fun
BooleanArray.any(predicate: (Boolean) -> Boolean): Boolean {\n    for (element in this) if (predicate(element))
return true\n    return false\n}\n\n/**\n * Returns `true` if at least one element matches the
given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.any\n * \n\npublic
inline fun CharArray.any(predicate: (Char) -> Boolean): Boolean {\n    for (element in this) if (predicate(element))
return true\n    return false\n}\n\n/**\n * Returns the number of elements in this array.\n * \n *
@sample samples.collections.Collections.Aggregates.any\n * \n\npublic inline fun <T> Array<out T>.count(): Int {\n    return
size\n}\n\n/**\n * Returns the number of elements in this array.\n * \n *
@sample samples.collections.Collections.Aggregates.any\n * \n\npublic inline fun

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ByteArray.count(): Int {\n  return size\n}\n\n/**\n * Returns the number of elements in this array.\n *\n * @kotlin.internal.InlineOnly\npublic inline fun ShortArray.count(): Int {\n  return size\n}\n\n/**\n * Returns the number of elements in this array.\n *\n * @kotlin.internal.InlineOnly\npublic inline fun
IntArray.count(): Int {\n  return size\n}\n\n/**\n * Returns the number of elements in this array.\n *\n * @kotlin.internal.InlineOnly\npublic inline fun LongArray.count(): Int {\n  return size\n}\n\n/**\n * Returns the
number of elements in this array.\n *\n * @kotlin.internal.InlineOnly\npublic inline fun FloatArray.count(): Int {\n  return size\n}\n\n/**\n * Returns the number of elements in this array.\n *\n * @kotlin.internal.InlineOnly\npublic
inline fun DoubleArray.count(): Int {\n  return size\n}\n\n/**\n * Returns the number of elements in this array.\n *\n * @kotlin.internal.InlineOnly\npublic inline fun BooleanArray.count(): Int {\n  return size\n}\n\n/**\n * Returns
the number of elements in this array.\n *\n * @kotlin.internal.InlineOnly\npublic inline fun CharArray.count(): Int {\n  return size\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n *\n * @public inline fun <T> Array<out T>.count(predicate: (T) -> Boolean): Int {\n  var count = 0\n  for (element in this) if (predicate(element)) ++count\n  return count\n}\n\n/**\n * Returns the number of elements matching the
given [predicate].\n *\n * @public inline fun ByteArray.count(predicate: (Byte) -> Boolean): Int {\n  var count = 0\n  for (element in this) if (predicate(element)) ++count\n  return count\n}\n\n/**\n * Returns the number of elements
matching the given [predicate].\n *\n * @public inline fun ShortArray.count(predicate: (Short) -> Boolean): Int {\n  var count = 0\n  for (element in this) if (predicate(element)) ++count\n  return count\n}\n\n/**\n * Returns the
number of elements matching the given [predicate].\n *\n * @public inline fun IntArray.count(predicate: (Int) -> Boolean): Int {\n  var count = 0\n  for (element in this) if (predicate(element)) ++count\n  return
count\n}\n\n/**\n * Returns the number of elements matching the given
[predicate].\n *\n * @public inline fun LongArray.count(predicate: (Long) -> Boolean): Int {\n  var count = 0\n  for (element in this) if (predicate(element)) ++count\n  return count\n}\n\n/**\n * Returns the number of elements
matching the given [predicate].\n *\n * @public inline fun FloatArray.count(predicate: (Float) -> Boolean): Int {\n  var count = 0\n  for (element in this) if (predicate(element)) ++count\n  return count\n}\n\n/**\n * Returns the
number of elements matching the given [predicate].\n *\n * @public inline fun DoubleArray.count(predicate: (Double) -> Boolean): Int {\n  var count = 0\n  for (element in this) if (predicate(element)) ++count\n  return
count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n *\n * @public inline fun BooleanArray.count(predicate: (Boolean) -> Boolean): Int {\n  var count = 0\n  for (element in this) if
(predicate(element)) ++count\n  return count\n}\n\n/**\n * Returns the number of elements matching
the given [predicate].\n *\n * @public inline fun CharArray.count(predicate: (Char) -> Boolean): Int {\n  var count = 0\n  for (element in this) if (predicate(element)) ++count\n  return count\n}\n\n/**\n * Accumulates value starting
with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n *\n * Returns the specified [initial] value if the array is empty.\n *\n * @param [operation] function that takes
current accumulator value and an element, and calculates the next accumulator value.\n *\n * @public inline fun <T, R> Array<out T>.fold(initial: R, operation: (acc: R, T) -> R): R {\n  var accumulator = initial\n  for (element in this)
accumulator = operation(accumulator, element)\n  return accumulator\n}\n\n/**\n * Accumulates value starting
with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n *\n * Returns the specified [initial] value if the array is
empty.\n *\n * @param [operation] function that takes current accumulator value and an element, and calculates the
next accumulator value.\n *\n * @public inline fun <R> ByteArray.fold(initial: R, operation: (acc: R, Byte) -> R): R {\n  var accumulator = initial\n  for (element in this) accumulator = operation(accumulator, element)\n  return
accumulator\n}\n\n/**\n * Accumulates value starting with [initial]
value and applying [operation] from left to right\n * to current accumulator value and each element.\n *\n * Returns the specified [initial] value if the array is
empty.\n *\n * @param [operation] function that takes current accumulator value and an element, and calculates the
next accumulator value.\n *\n * @public inline fun <R> ShortArray.fold(initial: R, operation: (acc: R, Short) -> R): R {\n  var accumulator = initial\n  for (element in this) accumulator = operation(accumulator, element)\n  return
accumulator\n}\n\n/**\n * Accumulates value starting with [initial]

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value and applying [operation] from left to right\n \* to current accumulator value and each element.\n \* \n \* Returns the specified [initial] value if the array is empty.\n \* \n \* @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n \*/\npublic inline fun <R> IntArray.fold(initial: R, operation: (acc: R, Int) -> R): R {\n var accumulator = initial\n for (element in this) accumulator = operation(accumulator, element)\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from left to right\n \* to current accumulator value and each element.\n \* \n \* Returns the specified [initial] value if the array is empty.\n \* \n \* @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n \*/\npublic inline fun <R> LongArray.fold(initial: R, operation: (acc: R, Long) -> R): R {\n var accumulator = initial\n for (element in this) accumulator = operation(accumulator, element)\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from left to right\n \* to current accumulator value and each element.\n \* \n \* Returns the specified [initial] value if the array is empty.\n \* \n \* @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n \*/\npublic inline fun <R> FloatArray.fold(initial: R, operation: (acc: R, Float) -> R): R {\n var accumulator = initial\n for (element in this) accumulator = operation(accumulator, element)\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from left to right\n \* to current accumulator value and each element.\n \* \n \* Returns the specified [initial] value if the array is empty.\n \* \n \* @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n \*/\npublic inline fun <R> DoubleArray.fold(initial: R, operation: (acc: R, Double) -> R): R {\n var accumulator = initial\n for (element in this) accumulator = operation(accumulator, element)\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from left to right\n \* to current accumulator value and each element.\n \* \n \* Returns the specified [initial] value if the array is empty.\n \* \n \* @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n \*/\npublic inline fun <R> BooleanArray.fold(initial: R, operation: (acc: R, Boolean) -> R): R {\n var accumulator = initial\n for (element in this) accumulator = operation(accumulator, element)\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from left to right\n \* to current accumulator value and each element.\n \* \n \* Returns the specified [initial] value if the array is empty.\n \* \n \* @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n \*/\npublic inline fun <R> CharArray.fold(initial: R, operation: (acc: R, Char) -> R): R {\n var accumulator = initial\n for (element in this) accumulator = operation(accumulator, element)\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from left to right\n \* to current accumulator value and each element with its index in the original array.\n \* \n \* Returns the specified [initial] value if the array is empty.\n \* \n \* @param [operation] function that takes the index of an element, current accumulator value\n \* and the element itself, and calculates the next accumulator value.\n \*/\npublic inline fun <T, R> Array<out T>.foldIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): R {\n var index = 0\n var accumulator = initial\n for (element in this) accumulator = operation(index++, accumulator, element)\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from left to right\n \* to current accumulator value and each element with its index in the original array.\n \* \n \* Returns the specified [initial] value if the array is empty.\n \* \n \* @param [operation] function that takes the index of an element, current accumulator value\n \* and the element itself, and calculates the next accumulator value.\n \*/\npublic inline fun <R> ByteArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Byte) -> R): R {\n var index = 0\n var accumulator = initial\n for (element in this) accumulator = operation(index++, accumulator, element)\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from left to right\n \* to current accumulator value and each element with its index in the original array.\n \* \n \* Returns the specified [initial] value if the array is empty.\n \* \n \* @param [operation] function that takes the index of an element, current accumulator value\n \* and the element itself, and calculates the next accumulator value.\n \*/\npublic inline fun <R> ShortArray.foldIndexed(initial: R, operation:

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(index: Int, acc: R, Short) -> R): R {
    var index = 0
    var accumulator = initial
    for (element in this)
        accumulator = operation(index++, accumulator, element)
    return accumulator
}

/** Accumulates value starting with [initial] value and applying [operation] from left to right
 * to current accumulator value and each element with its index in the original array.
 * Returns the specified [initial] value if the array is empty.
 * @param [operation] function that takes the index of an element, current accumulator value
 * and the element itself, and calculates the next accumulator value.
 */
public inline fun <R> IntArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Int) -> R): R {
    var index = 0
    var accumulator = initial
    for (element in this)
        accumulator = operation(index++, accumulator, element)
    return accumulator
}

/** Accumulates value starting with [initial] value and applying [operation] from left to
 * right
 * to current accumulator value and each element with its index in the original array.
 * Returns the specified [initial] value if the array is empty.
 * @param [operation] function that takes the index of an element, current accumulator value
 * and the element itself, and calculates the next accumulator value.
 */
public inline fun <R> LongArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Long) -> R): R {
    var index = 0
    var accumulator = initial
    for (element in this)
        accumulator = operation(index++, accumulator, element)
    return accumulator
}

/** Accumulates value starting with [initial] value and applying [operation] from left to right
 * to current accumulator value and each element with its index in the original array.
 * Returns the specified [initial] value if the array is empty.
 * @param [operation] function that takes the index of an element, current accumulator value
 * and the element itself, and calculates the next accumulator value.
 */
public inline fun <R> FloatArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Float) -> R): R {
    var index = 0
    var accumulator = initial
    for (element in this)
        accumulator = operation(index++, accumulator, element)
    return accumulator
}

/** Accumulates value starting with [initial] value and applying [operation] from left to right
 * to current accumulator value and each element with its index in the original array.
 * Returns the specified [initial] value if the array is empty.
 * @param [operation] function that takes the index of an element, current accumulator
 * value
 * and the element itself, and calculates the next accumulator value.
 */
public inline fun <R> DoubleArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Double) -> R): R {
    var index = 0
    var accumulator = initial
    for (element in this)
        accumulator = operation(index++, accumulator, element)
    return accumulator
}

/** Accumulates value starting with [initial] value and applying [operation] from left to
 * right
 * to current accumulator value and each element with its index in the original array.
 * Returns the specified [initial] value if the array is empty.
 * @param [operation] function that takes the index of an element, current accumulator value
 * and the element itself, and calculates the next accumulator value.
 */
public inline fun <R> BooleanArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Boolean) -> R): R {
    var index = 0
    var accumulator = initial
    for (element in this)
        accumulator = operation(index++, accumulator, element)
    return accumulator
}

/** Accumulates value starting with [initial] value and applying [operation] from left to right
 * to current accumulator value and each element with its index in the original array.
 * Returns the specified [initial] value if the array is empty.
 * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator
 * value.
 */
public inline fun <T, R> Array<out T>.foldRight(initial: R, operation: (T, acc: R) -> R): R {
    var index = lastIndex
    var accumulator = initial
    while (index >= 0) {
        accumulator = operation(get(index--), accumulator)
    }
    return accumulator
}

/** Accumulates value starting with [initial] value and applying [operation] from right to left
 * to each element and current accumulator value.
 * Returns the specified [initial] value if the array is empty.
 * @param [operation] function that takes an element and current

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accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R>
ByteArray.foldRight(initial: R, operation: (Byte, acc: R) -> R): R {\n  var index = lastIndex\n  var accumulator =
initial\n  while (index >= 0) {\n    accumulator = operation(get(index--), accumulator)\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from
right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the
array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and
calculates the next accumulator value.\n */\npublic inline fun <R> ShortArray.foldRight(initial: R, operation: (Short,
acc: R) -> R): R {\n  var index = lastIndex\n  var accumulator = initial\n  while (index >= 0) {\n
accumulator = operation(get(index--), accumulator)\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value
starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator
value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that
takes an element and current accumulator value, and calculates the next
accumulator value.\n */\npublic inline fun <R> IntArray.foldRight(initial: R, operation: (Int, acc: R) -> R): R {\n
var index = lastIndex\n  var accumulator = initial\n  while (index >= 0) {\n    accumulator =
operation(get(index--), accumulator)\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with
[initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n *
Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element
and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R>
LongArray.foldRight(initial: R, operation: (Long, acc: R) -> R): R {\n  var index = lastIndex\n  var accumulator =
initial\n  while (index >= 0) {\n    accumulator = operation(get(index--), accumulator)\n  }\n  return
accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation]
from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if
the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and
calculates the next accumulator value.\n */\npublic inline fun <R> FloatArray.foldRight(initial: R, operation: (Float,
acc: R) -> R): R {\n  var index = lastIndex\n  var accumulator = initial\n  while (index >= 0) {\n
accumulator = operation(get(index--), accumulator)\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value
starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator
value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that
takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun
<R> DoubleArray.foldRight(initial: R, operation: (Double, acc:
R) -> R): R {\n  var index = lastIndex\n  var accumulator = initial\n  while (index >= 0) {\n    accumulator =
operation(get(index--), accumulator)\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with
[initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n *
Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element
and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R>
BooleanArray.foldRight(initial: R, operation: (Boolean, acc: R) -> R): R {\n  var index = lastIndex\n  var
accumulator = initial\n  while (index >= 0) {\n    accumulator = operation(get(index--), accumulator)\n  }\n
return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right
to left\n * to each element and current accumulator value.\n * \n * Returns
the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and
current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R>
CharArray.foldRight(initial: R, operation: (Char, acc: R) -> R): R {\n  var index = lastIndex\n  var accumulator =
initial\n  while (index >= 0) {\n    accumulator = operation(get(index--), accumulator)\n  }\n  return
accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to
left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the
specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an
element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <T, R> Array<out T>.foldRightIndexed(initial: R, operation: (index: Int, T, acc:

```

```

R) -> R): R {
    var index = lastIndex
    var accumulator = initial
    while (index >= 0) {
        accumulator =
operation(index, get(index), accumulator)
        --index
    }
    return accumulator
}

```

Accumulates value starting with [initial] value and applying [operation] from right to left to each element with its index in the original array and current accumulator value.

Returns the specified [initial] value if the array is empty.

@param [operation] function that takes the index of an element, the element itself and current accumulator value, and calculates the next accumulator value.

```

public inline fun <R> ByteArray.foldRightIndexed(initial: R,
operation: (index: Int, Byte, acc: R) -> R): R {
    var index = lastIndex
    var accumulator = initial
    while (index >= 0) {
        accumulator = operation(index, get(index), accumulator)
        --index
    }
    return accumulator
}

```

Accumulates value starting with [initial] value and applying [operation] from right to left to each element with its index in the original array and current accumulator value.

Returns the specified [initial] value if the array is empty.

@param [operation] function that takes the index of an element, the element itself and current accumulator value, and calculates the next accumulator value.

```

public inline fun <R> ShortArray.foldRightIndexed(initial: R,
operation: (index: Int, Short, acc: R) -> R): R {
    var index = lastIndex
    var accumulator = initial
    while (index >= 0) {
        accumulator = operation(index, get(index), accumulator)
        --index
    }
    return accumulator
}

```

Accumulates value starting with [initial] value and applying [operation] from right to left to each element with its index in the original array and current accumulator value.

Returns the specified [initial] value if the array is empty.

@param [operation] function that takes the index of an element, the element itself and current accumulator value, and calculates the next accumulator value.

```

public inline fun <R> IntArray.foldRightIndexed(initial: R, operation: (index: Int, Int, acc:
R) -> R): R {
    var index = lastIndex
    var accumulator = initial
    while (index >= 0) {
        accumulator =
operation(index, get(index), accumulator)
        --index
    }
    return accumulator
}

```

Accumulates value starting with [initial] value and applying [operation] from right to left to each element with its index in the original array and current accumulator value.

Returns the specified [initial] value if the array is empty.

@param [operation] function that takes the index of an element, the element itself and current accumulator value, and calculates the next accumulator value.

```

public inline fun <R> LongArray.foldRightIndexed(initial:
R, operation: (index: Int, Long, acc: R) -> R): R
{
    var index = lastIndex
    var accumulator = initial
    while (index >= 0) {
        accumulator =
operation(index, get(index), accumulator)
        --index
    }
    return accumulator
}

```

Accumulates value starting with [initial] value and applying [operation] from right to left to each element with its index in the original array and current accumulator value.

Returns the specified [initial] value if the array is empty.

@param [operation] function that takes the index of an element, the element itself and current accumulator value, and calculates the next accumulator value.

```

public inline fun <R> FloatArray.foldRightIndexed(initial:
R, operation: (index: Int, Float, acc: R) -> R): R {
    var index = lastIndex
    var accumulator = initial
    while (index >= 0) {
        accumulator = operation(index, get(index), accumulator)
        --index
    }
    return accumulator
}

```

Accumulates value starting with [initial] value and applying [operation] from right to left to each element with its index in the original array and current accumulator value.

Returns the specified [initial] value if the array is empty.

@param [operation] function that takes the index of an element, the element itself and current accumulator value, and calculates the next accumulator value.

```

public inline fun <R> DoubleArray.foldRightIndexed(initial: R, operation: (index: Int,
Double, acc: R) -> R): R {
    var index = lastIndex
    var accumulator = initial
    while (index >= 0) {
        accumulator = operation(index, get(index), accumulator)
        --index
    }
    return accumulator
}

```

Accumulates value starting with [initial] value and applying [operation] from right to left to each element with its index in the original array and current accumulator value.

Returns the specified [initial] value if the array is empty.

@param [operation] function that takes the index of an element, the element itself and current accumulator value, and calculates the next accumulator value.

```

public inline fun <R> BooleanArray.foldRightIndexed(initial: R, operation: (index: Int,
Boolean, acc: R) -> R): R {
    var index = lastIndex
    var accumulator = initial
    while (index >= 0) {

```

```

accumulator = operation(index, get(index), accumulator)\n    --index\n } return accumulator\n}\n\n/**\n *
Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with
its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array
is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current
accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R>
CharArray.foldRightIndexed(initial: R, operation: (index: Int, Char, acc: R) -> R): R
{
    var index = lastIndex\n    var accumulator = initial\n    while (index >= 0) {
        accumulator =
operation(index, get(index), accumulator)\n        --index\n    }
    return accumulator\n}\n\n/**\n * Performs the
given [action] on each element.\n */\npublic inline fun <T> Array<out T>.forEach(action: (T) -> Unit): Unit {
    for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline
fun ByteArray.forEach(action: (Byte) -> Unit): Unit {
    for (element in this) action(element)\n}\n\n/**\n *
Performs the given [action] on each element.\n */\npublic inline fun ShortArray.forEach(action: (Short) -> Unit):
Unit {
    for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun IntArray.forEach(action: (Int) -> Unit): Unit {
    for (element in this)
action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun
LongArray.forEach(action:
(Long) -> Unit): Unit {
    for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each
element.\n */\npublic inline fun FloatArray.forEach(action: (Float) -> Unit): Unit {
    for (element in this)
action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun
DoubleArray.forEach(action: (Double) -> Unit): Unit {
    for (element in this) action(element)\n}\n\n/**\n *
Performs the given [action] on each element.\n */\npublic inline fun BooleanArray.forEach(action: (Boolean) ->
Unit): Unit {
    for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun CharArray.forEach(action: (Char) -> Unit): Unit {
    for (element in this)
action(element)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the
element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs
the action on the element.\n */\npublic inline fun <T> Array<out T>.forEachIndexed(action: (index: Int, T) ->
Unit): Unit {
    var index = 0\n    for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action]
on each element, providing sequential index with the element.\n * @param [action] function that takes the index of
an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun
ByteArray.forEachIndexed(action: (index: Int, Byte) -> Unit): Unit {
    var index = 0\n    for (item in this)
action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with
the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs
the action on the element.\n */\npublic inline fun ShortArray.forEachIndexed(action: (index: Int, Short) -> Unit):
Unit {
    var index = 0\n    for (item in this) action(index++, item)\n}\n\n/**\n * Performs
the given [action] on each element, providing sequential index with the element.\n * @param [action] function that
takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline
fun IntArray.forEachIndexed(action: (index: Int, Int) -> Unit): Unit {
    var index = 0\n    for (item in this)
action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with
the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs
the action on the element.\n */\npublic inline fun LongArray.forEachIndexed(action: (index: Int, Long) -> Unit):
Unit {
    var index = 0\n    for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on
each element, providing sequential index with the element.\n * @param [action] function that takes the index of an
element and the element itself\n * and performs the action on the element.\n */\npublic inline fun FloatArray.forEachIndexed(action: (index: Int, Float) -> Unit): Unit {
    var index = 0\n    for
(item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential
index with the element.\n * @param [action] function that takes the index of an element and the element itself\n *
and performs the action on the element.\n */\npublic inline fun DoubleArray.forEachIndexed(action: (index: Int,
Double) -> Unit): Unit {
    var index = 0\n    for (item in this) action(index++, item)\n}\n\n/**\n * Performs the

```

given [action] on each element, providing sequential index with the element.\n \* @param [action] function that takes the index of an element and the element itself\n \* and performs the action on the element.\n \*/\npublic inline fun BooleanArray.forEachIndexed(action: (index: Int, Boolean) -> Unit): Unit {\n var index = 0\n for (item in this) action(index++, item)\n}\n\n/\*\*\n \* Performs the given [action]

on each element, providing sequential index with the element.\n \* @param [action] function that takes the index of an element and the element itself\n \* and performs the action on the element.\n \*/\npublic inline fun CharArray.forEachIndexed(action: (index: Int, Char) -> Unit): Unit {\n var index = 0\n for (item in this) action(index++, item)\n}\n\n/\*\*\n \* Returns the largest element.\n \* \n \* If any of elements is `NaN` returns `NaN`.\n \* \n \* @throws NoSuchElementException if the array is empty.\n \*/\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxOrThrow")\n@Suppress("CONFLICTING\_OVERLOADS")\npublic fun Array<out Double>.max(): Double {\n if (isEmpty()) throw NoSuchElementException()\n var max = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n max = maxOf(max, e)\n }\n return max\n}\n\n/\*\*\n \* Returns the largest element.\n \* \n \* If any of elements is `NaN` returns `NaN`.\n \* \n \* @throws NoSuchElementException if the array is empty.\n \*/\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxOrThrow")\n@Suppress("CONFLICTING\_OVERLOADS")\npublic fun Array<out Float>.max(): Float {\n if (isEmpty()) throw NoSuchElementException()\n var max = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n max = maxOf(max, e)\n }\n return max\n}\n\n/\*\*\n \* Returns the largest element.\n \* \n \* @throws NoSuchElementException if the array is empty.\n \*/\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxOrThrow")\n@Suppress("CONFLICTING\_OVERLOADS")\npublic fun <T : Comparable<T>> Array<out T>.max(): T {\n if (isEmpty()) throw NoSuchElementException()\n var max = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (max < e) max = e\n }\n return max\n}\n\n/\*\*\n \* Returns the largest element.\n \* \n \* @throws NoSuchElementException if the array is empty.\n \*/\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxOrThrow")\n@Suppress("CONFLICTING\_OVERLOADS")\npublic fun ByteArray.max(): Byte {\n if (isEmpty()) throw NoSuchElementException()\n var max = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (max < e) max = e\n }\n return max\n}\n\n/\*\*\n \* Returns the largest element.\n \* \n \* @throws NoSuchElementException if the array is empty.\n \*/\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxOrThrow")\n@Suppress("CONFLICTING\_OVERLOADS")\npublic fun ShortArray.max(): Short {\n if (isEmpty()) throw NoSuchElementException()\n var max = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (max < e) max = e\n }\n return max\n}\n\n/\*\*\n \* Returns the largest element.\n \* \n \* @throws NoSuchElementException if the array is empty.\n \*/\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxOrThrow")\n@Suppress("CONFLICTING\_OVERLOADS")\npublic fun IntArray.max(): Int {\n if (isEmpty()) throw NoSuchElementException()\n var max = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (max < e) max = e\n }\n return max\n}\n\n/\*\*\n \* Returns the largest element.\n \* \n \* @throws NoSuchElementException if the array is empty.\n \*/\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxOrThrow")\n@Suppress("CONFLICTING\_OVERLOADS")\npublic fun LongArray.max(): Long {\n if (isEmpty()) throw NoSuchElementException()\n var max = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (max < e) max = e\n }\n return max\n}\n\n/\*\*\n \* Returns the largest element.\n \* \n \* If any of elements is `NaN` returns `NaN`.\n \* \n \* @throws NoSuchElementException if the array is empty.\n \*/\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxOrThrow")\n@Suppress("CONFLICTING\_OVERLOADS")\npublic fun FloatArray.max(): Float {\n if (isEmpty()) throw NoSuchElementException()\n var max = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n max = maxOf(max, e)\n }\n return max\n}\n\n/\*\*\n \* Returns the largest element.\n \* \n \* If any of elements is `NaN` returns `NaN`.\n \* \n \* @throws NoSuchElementException if the array is empty.\n \*/\n

```

*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxOrThrow")\n@Suppress("CONFLICTING_OVERLOADS")\npublic fun DoubleArray.max(): Double {\n    if (isEmpty()) throw NoSuchElementException()\n    var max = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        max = maxOf(max, e)\n    }\n    return max\n}\n\n/**\n * Returns the largest element.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxOrThrow")\n@Suppress("CONFLICTING_OVERLOADS")\npublic fun CharArray.max(): Char {\n    if (isEmpty()) throw NoSuchElementException()\n    var max = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (max < e) max = e\n    }\n    return max\n}\n\n/**\n * Returns the first element yielding the largest value of the given function.\n * \n * @throws\n * NoSuchElementException\n * if the array is empty.\n * \n * @sample samples.collections.Collections.Aggregates.maxBy\n */\n*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxByOrThrow")\n@Suppress("CONFLICTING_OVERLOADS")\npublic inline fun <T, R : Comparable<R>> Array<out T>.maxBy(selector: (T) -> R): T {\n    if (isEmpty()) throw NoSuchElementException()\n    var maxElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return maxElem\n    var maxValue = selector(maxElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (maxValue < v) {\n            maxElem = e\n            maxValue = v\n        }\n    }\n    return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample\n * samples.collections.Collections.Aggregates.maxBy\n */\n*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxByOrThrow")\n@Suppress("CONFLICTING_OVERLOADS")\npublic inline fun <R : Comparable<R>> ByteArray.maxBy(selector: (Byte) -> R): Byte {\n    if (isEmpty()) throw NoSuchElementException()\n    var maxElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return maxElem\n    var maxValue = selector(maxElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (maxValue < v) {\n            maxElem = e\n            maxValue = v\n        }\n    }\n    return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample\n * samples.collections.Collections.Aggregates.maxBy\n */\n*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxByOrThrow")\n@Suppress("CONFLICTING_OVERLOADS")\npublic inline fun <R : Comparable<R>> ShortArray.maxBy(selector: (Short) -> R): Short {\n    if (isEmpty()) throw NoSuchElementException()\n    var maxElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return maxElem\n    var maxValue = selector(maxElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (maxValue < v) {\n            maxElem = e\n            maxValue = v\n        }\n    }\n    return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample\n * samples.collections.Collections.Aggregates.maxBy\n */\n*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxByOrThrow")\n@Suppress("CONFLICTING_OVERLOADS")\npublic inline fun <R : Comparable<R>> IntArray.maxBy(selector: (Int) -> R): Int {\n    if (isEmpty()) throw NoSuchElementException()\n    var maxElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return maxElem\n    var maxValue = selector(maxElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (maxValue < v) {\n            maxElem = e\n            maxValue = v\n        }\n    }\n    return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample\n * samples.collections.Collections.Aggregates.maxBy\n */\n*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxByOrThrow")\n@Suppress("CONFLICTING_OVERLOADS")\npublic inline fun <R : Comparable<R>> LongArray.maxBy(selector: (Long) -> R): Long {\n    if (isEmpty()) throw NoSuchElementException()\n    var maxElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return maxElem\n    var maxValue = selector(maxElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (maxValue < v) {\n            maxElem = e\n            maxValue = v\n        }\n    }\n    return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample\n * samples.collections.Collections.Aggregates.maxBy\n */

```

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}\n return maxElem}\n\n/**\n * Returns the first element yielding the largest value of the given function.\n * \n
 * @throws NoSuchElementException if the array is empty.\n * \n * @sample
samples.collections.Collections.Aggregates.maxBy\n
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxByOrThrow")\n@Suppress("CONFLICTING_OVERL
OADS")\npublic inline fun <R : Comparable<R>> FloatArray.maxBy(selector: (Float) -> R): Float {\n if
(isEmpty()) throw NoSuchElementException()\n var maxElem = this[0]\n val lastIndex = this.lastIndex\n if
(lastIndex == 0) return maxElem\n var maxValue = selector(maxElem)\n for (i in 1..lastIndex) {\n val e =
this[i]\n val v = selector(e)\n if (maxValue < v) {\n maxElem = e\n maxValue = v\n }\n
}\n return maxElem}\n\n/**\n * Returns the first element yielding the largest value of the given function.\n * \n
 * @throws NoSuchElementException if the array is empty.\n * \n * @sample
samples.collections.Collections.Aggregates.maxBy\n
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxByOrThrow")\n@Suppress("CONFLICTING_OVERL
OADS")\npublic
inline fun <R : Comparable<R>> DoubleArray.maxBy(selector: (Double) -> R): Double {\n if (isEmpty()) throw
NoSuchElementException()\n var maxElem = this[0]\n val lastIndex = this.lastIndex\n if (lastIndex == 0)
return maxElem\n var maxValue = selector(maxElem)\n for (i in 1..lastIndex) {\n val e = this[i]\n val v
= selector(e)\n if (maxValue < v) {\n maxElem = e\n maxValue = v\n }\n }\n return
maxElem}\n\n/**\n * Returns the first element yielding the largest value of the given function.\n * \n
 * @throws NoSuchElementException if the array is empty.\n * \n * @sample
samples.collections.Collections.Aggregates.maxBy\n
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxByOrThrow")\n@Suppress("CONFLICTING_OVERL
OADS")\npublic inline fun <R : Comparable<R>> BooleanArray.maxBy(selector: (Boolean) -> R): Boolean {\n
if (isEmpty()) throw NoSuchElementException()\n var
maxElem = this[0]\n val lastIndex = this.lastIndex\n if (lastIndex == 0) return maxElem\n var maxValue =
selector(maxElem)\n for (i in 1..lastIndex) {\n val e = this[i]\n val v = selector(e)\n if (maxValue < v)
{\n maxElem = e\n maxValue = v\n }\n }\n return maxElem}\n\n/**\n * Returns the first
element yielding the largest value of the given function.\n * \n * @throws NoSuchElementException if the array is
empty.\n * \n * @sample samples.collections.Collections.Aggregates.maxBy\n
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxByOrThrow")\n@Suppress("CONFLICTING_OVERL
OADS")\npublic inline fun <R : Comparable<R>> CharArray.maxBy(selector: (Char) -> R): Char {\n if
(isEmpty()) throw NoSuchElementException()\n var maxElem = this[0]\n val lastIndex = this.lastIndex\n if
(lastIndex == 0) return maxElem\n var maxValue = selector(maxElem)\n for (i in 1..lastIndex) {\n val e =
this[i]\n
val v = selector(e)\n if (maxValue < v) {\n maxElem = e\n maxValue = v\n }\n }\n
return maxElem}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if
there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n
*\n@SinceKotlin("1.4")\npublic inline fun <T, R : Comparable<R>> Array<out T>.maxByOrNull(selector: (T) ->
R): T? {\n if (isEmpty()) return null\n var maxElem = this[0]\n val lastIndex = this.lastIndex\n if (lastIndex
== 0) return maxElem\n var maxValue = selector(maxElem)\n for (i in 1..lastIndex) {\n val e = this[i]\n
val v = selector(e)\n if (maxValue < v) {\n maxElem = e\n maxValue = v\n }\n }\n return
maxElem}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are
no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n
*\n@SinceKotlin("1.4")\npublic inline fun <R : Comparable<R>> ByteArray.maxByOrNull(selector: (Byte) ->
R): Byte? {\n if (isEmpty()) return null\n var maxElem = this[0]\n val lastIndex = this.lastIndex\n if
(lastIndex == 0) return maxElem\n var maxValue = selector(maxElem)\n for (i in 1..lastIndex) {\n val e =
this[i]\n val v = selector(e)\n if (maxValue < v) {\n maxElem = e\n maxValue = v\n }\n
}\n return maxElem}\n\n/**\n * Returns the first element yielding the largest value of the given function or
`null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n

```

```

*\/n@SinceKotlin("1.4")\npublic inline fun <R : Comparable<R>> ShortArray.maxByOrNull(selector: (Short) ->
R): Short? {\n if (isEmpty()) return null\n var maxElem = this[0]\n val lastIndex = this.lastIndex\n if
(lastIndex == 0) return maxElem\n var maxValue
= selector(maxElem)\n for (i in 1..lastIndex) {\n val e = this[i]\n val v = selector(e)\n if (maxValue <
v) {\n maxElem = e\n maxValue = v\n }\n }\n return maxElem\n}\n\n/**\n * Returns the first
element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin("1.4")\npublic inline fun <R :
Comparable<R>> IntArray.maxByOrNull(selector: (Int) -> R): Int? {\n if (isEmpty()) return null\n var maxElem
= this[0]\n val lastIndex = this.lastIndex\n if (lastIndex == 0) return maxElem\n var maxValue =
selector(maxElem)\n for (i in 1..lastIndex) {\n val e = this[i]\n val v = selector(e)\n if (maxValue < v)
{\n maxElem = e\n maxValue = v\n }\n }\n return maxElem\n}\n\n/**\n * Returns the first
element yielding the largest value of the given function
or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin("1.4")\npublic inline fun <R : Comparable<R>> LongArray.maxByOrNull(selector: (Long) ->
R): Long? {\n if (isEmpty()) return null\n var maxElem = this[0]\n val lastIndex = this.lastIndex\n if
(lastIndex == 0) return maxElem\n var maxValue = selector(maxElem)\n for (i in 1..lastIndex) {\n val e =
this[i]\n val v = selector(e)\n if (maxValue < v) {\n maxElem = e\n maxValue = v\n }\n }\n return
maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or
`null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin("1.4")\npublic inline fun <R : Comparable<R>> FloatArray.maxByOrNull(selector: (Float) ->
R): Float? {\n if (isEmpty()) return null\n var maxElem = this[0]\n val
lastIndex = this.lastIndex\n if (lastIndex == 0) return maxElem\n var maxValue = selector(maxElem)\n for (i
in 1..lastIndex) {\n val e = this[i]\n val v = selector(e)\n if (maxValue < v) {\n maxElem = e\n
maxValue = v\n }\n }\n return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value
of the given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin("1.4")\npublic inline fun <R :
Comparable<R>> DoubleArray.maxByOrNull(selector: (Double) -> R): Double? {\n if (isEmpty()) return null\n
var maxElem = this[0]\n val lastIndex = this.lastIndex\n if (lastIndex == 0) return maxElem\n var maxValue
= selector(maxElem)\n for (i in 1..lastIndex) {\n val e = this[i]\n val v = selector(e)\n if (maxValue < v)
{\n maxElem = e\n maxValue = v\n }\n }\n return
maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there
are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin("1.4")\npublic inline fun <R : Comparable<R>> BooleanArray.maxByOrNull(selector:
(Boolean) -> R): Boolean? {\n if (isEmpty()) return null\n var maxElem = this[0]\n val lastIndex =
this.lastIndex\n if (lastIndex == 0) return maxElem\n var maxValue = selector(maxElem)\n for (i in
1..lastIndex) {\n val e = this[i]\n val v = selector(e)\n if (maxValue < v) {\n maxElem = e\n
maxValue = v\n }\n }\n return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value
of the given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin("1.4")\npublic inline fun <R :
Comparable<R>> CharArray.maxByOrNull(selector:
(Char) -> R): Char? {\n if (isEmpty()) return null\n var maxElem = this[0]\n val lastIndex = this.lastIndex\n
if (lastIndex == 0) return maxElem\n var maxValue = selector(maxElem)\n for (i in 1..lastIndex) {\n val e
= this[i]\n val v = selector(e)\n if (maxValue < v) {\n maxElem = e\n maxValue = v\n }\n }\n return
maxElem\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n *
applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned
result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.maxOf(selector: (T) ->

```

```

Double): Double {
    if (isEmpty()) throw NoSuchElementException()
    var maxValue
    = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        maxValue = maxOf(maxValue, v)
    }
    return maxValue
}

/** Returns the largest value among all values produced by [selector]
function applied to each element in the array.
If any of values produced by [selector] function is `NaN`,
the returned result is `NaN`.
@throws NoSuchElementException if the array is empty.
*/
@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.internal.InlineOnly
public inline fun ByteArray.maxOf(selector: (Byte) -> Double): Double {
    if (isEmpty()) throw NoSuchElementException()
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        maxValue = maxOf(maxValue, v)
    }
    return maxValue
}

/** Returns the largest value among all values produced by [selector] function
applied to each element in the array.
If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.
@throws NoSuchElementException if the array is empty.
*/
@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.internal.InlineOnly
public inline fun ShortArray.maxOf(selector: (Short) -> Double): Double {
    if (isEmpty()) throw NoSuchElementException()
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        maxValue = maxOf(maxValue, v)
    }
    return maxValue
}

/** Returns the largest value among all values produced by [selector] function
applied to each element in the array.
If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.
@throws NoSuchElementException if the array is empty.
*/
@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.internal.InlineOnly
public inline fun IntArray.maxOf(selector: (Int) -> Double): Double {
    if (isEmpty()) throw
NoSuchElementException()
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v =
selector(this[i])
        maxValue = maxOf(maxValue, v)
    }
    return maxValue
}

/** Returns the
largest value among all values produced by [selector] function
applied to each element in the array.
If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.
@throws
NoSuchElementException if the array is empty.
*/
@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.internal.InlineOnly
public inline fun LongArray.maxOf(selector: (Long) -> Double): Double {
    if (isEmpty()) throw NoSuchElementException()
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        maxValue = maxOf(maxValue, v)
    }
    return
maxValue
}

/** Returns the largest value among all values produced by [selector] function
applied to each element in the array.
If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.
@throws NoSuchElementException if the array is empty.
*/
@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.internal.InlineOnly
public inline fun FloatArray.maxOf(selector: (Float) -> Double): Double {
    if (isEmpty()) throw NoSuchElementException()
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        maxValue = maxOf(maxValue, v)
    }
    return
maxValue
}

/** Returns the largest value among all values produced by [selector] function
applied to each element
in the array.
If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.
@throws NoSuchElementException if the array is empty.
*/
@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.internal.InlineOnly
public inline fun DoubleArray.maxOf(selector: (Double) -> Double): Double {
    if (isEmpty()) throw NoSuchElementException()
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        maxValue = maxOf(maxValue, v)
    }
    return
maxValue
}

/** Returns the largest value among all values produced by [selector] function
applied to each element in the array.
If any of values produced by [selector] function is `NaN`, the returned result is

```



```

`NaN`.n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun BooleanArray.maxOf(selector: (Boolean) -> Double): Double {\n if (isEmpty()) throw
NoSuchElementException()\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v =
selector(this[i])\n maxValue = maxOf(maxValue, v)\n }\n return maxValue\n}\n\n/**\n * Returns the
largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If
any of values produced by [selector] function is `NaN`, the returned result is `NaN`.n * \n * @throws
NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.maxOf(selector: (Char) ->
Double): Double {\n if (isEmpty()) throw NoSuchElementException()\n var maxValue = selector(this[0])\n
for (i in 1..lastIndex) {\n val v = selector(this[i])\n maxValue = maxOf(maxValue, v)\n }\n return
maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.maxOf(selector: (T) ->
Float): Float {\n if (isEmpty()) throw NoSuchElementException()\n var maxValue = selector(this[0])\n for (i
in 1..lastIndex) {\n val v = selector(this[i])\n maxValue = maxOf(maxValue, v)\n }\n return
maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.maxOf(selector: (Byte) -> Float):
Float {\n if (isEmpty()) throw NoSuchElementException()\n var maxValue = selector(this[0])\n for (i in
1..lastIndex) {\n val v = selector(this[i])\n maxValue = maxOf(maxValue, v)\n }\n return
maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun ShortArray.maxOf(selector: (Short) -> Float): Float {\n if (isEmpty()) throw
NoSuchElementException()\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v =
selector(this[i])\n maxValue = maxOf(maxValue, v)\n }\n return maxValue\n}\n\n/**\n * Returns the
largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If
any of values produced by [selector] function is `NaN`, the returned result is `NaN`.n * \n * @throws
NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.maxOf(selector: (Int) -> Float):
Float {\n if (isEmpty()) throw NoSuchElementException()\n var maxValue = selector(this[0])\n for (i in
1..lastIndex)
{\n val v = selector(this[i])\n maxValue = maxOf(maxValue, v)\n }\n return maxValue\n}\n\n/**\n *
Returns the largest value among all values produced by [selector] function\n * applied to each element in the
array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.n * \n *
@throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

```

```

ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.maxOf(selector: (Long) ->
Float): Float {\n  if (isEmpty()) throw NoSuchElementException()\n  var maxValue = selector(this[0])\n  for (i
in 1..lastIndex) {\n    val v = selector(this[i])\n    maxValue = maxOf(maxValue, v)\n  }\n  return
maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values
produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException
if the array is empty.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.maxOf(selector: (Float) ->
Float): Float {\n  if (isEmpty()) throw NoSuchElementException()\n  var maxValue = selector(this[0])\n  for (i
in 1..lastIndex) {\n    val v = selector(this[i])\n    maxValue = maxOf(maxValue, v)\n  }\n  return
maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values
produced by [selector] function is `NaN`, the returned result is
`NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun DoubleArray.maxOf(selector: (Double) -> Float): Float {\n  if (isEmpty()) throw
NoSuchElementException()\n  var maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v =
selector(this[i])\n    maxValue = maxOf(maxValue, v)\n  }\n  return maxValue\n}\n\n/**\n * Returns the
largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If
any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.maxOf(selector: (Boolean) ->
Float): Float {\n  if (isEmpty()) throw NoSuchElementException()\n  var maxValue = selector(this[0])\n  for (i
in 1..lastIndex) {\n    val v
= selector(this[i])\n    maxValue = maxOf(maxValue, v)\n  }\n  return maxValue\n}\n\n/**\n * Returns the
largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If
any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.maxOf(selector: (Char) -> Float):
Float {\n  if (isEmpty()) throw NoSuchElementException()\n  var maxValue = selector(this[0])\n  for (i in
1..lastIndex) {\n    val v = selector(this[i])\n    maxValue = maxOf(maxValue, v)\n  }\n  return
maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * @throws NoSuchElementException
if the array is empty.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Array<out
T>.maxOf(selector: (T) -> R): R {\n  if (isEmpty()) throw NoSuchElementException()\n  var maxValue =
selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (maxValue < v) {\n
maxValue = v\n    }\n  }\n  return maxValue\n}\n\n/**\n * Returns the largest value among all values produced
by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the
array is empty.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
ByteArray.maxOf(selector: (Byte) -> R): R {\n  if (isEmpty()) throw NoSuchElementException()\n

```

```

    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        if (maxValue < v) {
            maxValue = v
        }
    }
    return maxValue
}

Returns the largest value among all values produced by [selector] function applied to each element in the array. @throws NoSuchElementException if the array is empty.

@SinceKotlin("1.4")@OptIn(kotlin.experimental.ExperimentalTypeInference::class)@OverloadResolutionByLambdaReturnType@kotlin.internal.InlineOnly
public inline fun <R : Comparable<R>>
ShortArray.maxOf(selector: (Short) -> R): R {
    if (isEmpty()) throw NoSuchElementException()
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        if (maxValue < v) {
            maxValue = v
        }
    }
    return maxValue
}

Returns the largest value among all values produced by [selector] function applied to each element in the array. @throws NoSuchElementException if the array is empty.

@SinceKotlin("1.4")@OptIn(kotlin.experimental.ExperimentalTypeInference::class)@OverloadResolutionByLambdaReturnType@kotlin.internal.InlineOnly
public inline fun <R : Comparable<R>>
IntArray.maxOf(selector: (Int) -> R): R {
    if (isEmpty()) throw NoSuchElementException()
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        if (maxValue < v) {
            maxValue = v
        }
    }
    return maxValue
}

Returns the largest value among all values produced by [selector] function applied to each element in the array. @throws NoSuchElementException if the array is empty.

@SinceKotlin("1.4")@OptIn(kotlin.experimental.ExperimentalTypeInference::class)@OverloadResolutionByLambdaReturnType@kotlin.internal.InlineOnly
public inline fun <R : Comparable<R>>
LongArray.maxOf(selector: (Long) -> R): R {
    if (isEmpty()) throw NoSuchElementException()
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        if (maxValue < v) {
            maxValue = v
        }
    }
    return maxValue
}

Returns the largest value among all values produced by [selector] function applied to each element in the array. @throws NoSuchElementException if the array is empty.

@SinceKotlin("1.4")@OptIn(kotlin.experimental.ExperimentalTypeInference::class)@OverloadResolutionByLambdaReturnType@kotlin.internal.InlineOnly
public inline fun <R : Comparable<R>>
FloatArray.maxOf(selector: (Float) -> R): R {
    if (isEmpty()) throw NoSuchElementException()
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        if (maxValue < v) {
            maxValue = v
        }
    }
    return maxValue
}

Returns the largest value among all values produced by [selector] function applied to each element in the array. @throws NoSuchElementException if the array is empty.

@SinceKotlin("1.4")@OptIn(kotlin.experimental.ExperimentalTypeInference::class)@OverloadResolutionByLambdaReturnType@kotlin.internal.InlineOnly
public inline fun <R : Comparable<R>>
DoubleArray.maxOf(selector: (Double) -> R): R {
    if (isEmpty()) throw NoSuchElementException()
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        if (maxValue < v) {
            maxValue = v
        }
    }
    return maxValue
}

Returns the largest value among all values produced by [selector] function applied to each element in the array. @throws NoSuchElementException if the array is empty.

@SinceKotlin("1.4")@OptIn(kotlin.experimental.ExperimentalTypeInference::class)@OverloadResolutionByLambdaReturnType@kotlin.internal.InlineOnly
public inline fun <R : Comparable<R>>
BooleanArray.maxOf(selector: (Boolean) -> R): R {
    if (isEmpty()) throw NoSuchElementException()
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        if (maxValue < v) {
            maxValue = v
        }
    }
    return maxValue
}

Returns the largest value among all values produced by [selector] function applied to each element in the array. @throws NoSuchElementException if the array is empty.

@SinceKotlin("1.4")@OptIn(kotlin.experimental.ExperimentalTypeInference::class)@OverloadResolution

```

```

ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
CharArray.maxOf(selector: (Char) -> R): R {\n  if (isEmpty()) throw NoSuchElementException()\n  var
maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (maxValue < v) {\n
    maxValue = v\n    }\n  }\n  return maxValue\n}\n\n/**\n
* Returns the largest value among all values produced by [selector] function\n
* applied to each element in the array or `null` if there are no elements.\n
* If any of values produced by [selector] function is `NaN`, the
returned result is `NaN`.\n
*/\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.maxOfOrNull(selector:
(T) -> Double): Double? {\n  if (isEmpty()) return null\n  var maxValue = selector(this[0])\n  for (i in
1..lastIndex) {\n    val v = selector(this[i])\n    maxValue = maxOf(maxValue, v)\n  }\n  return
maxValue\n}\n\n/**\n
* Returns the largest value among all values produced by [selector] function\n
* applied to each element in the array or `null` if there are no elements.\n
* If any of values produced by [selector] function
is `NaN`, the returned result is `NaN`.\n
*/\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun ByteArray.maxOfOrNull(selector: (Byte) -> Double): Double? {\n  if (isEmpty()) return null\n  var
maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    maxValue =
maxOf(maxValue, v)\n  }\n  return maxValue\n}\n\n/**\n
* Returns the largest value among all values produced
by [selector] function\n
* applied to each element in the array or `null` if there are no elements.\n
* If any of
values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*/\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.maxOfOrNull(selector: (Short) -
> Double): Double? {\n  if (isEmpty()) return null\n  var maxValue = selector(this[0])\n  for (i
in 1..lastIndex) {\n    val v = selector(this[i])\n    maxValue = maxOf(maxValue, v)\n  }\n  return
maxValue\n}\n\n/**\n
* Returns the largest value among all values produced by [selector] function\n
* applied to each element in the array or `null` if there are no elements.\n
* If any of values produced by [selector] function
is `NaN`, the returned result is `NaN`.\n
*/\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.maxOfOrNull(selector: (Int) ->
Double): Double? {\n  if (isEmpty()) return null\n  var maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n
val v = selector(this[i])\n    maxValue = maxOf(maxValue, v)\n  }\n  return maxValue\n}\n\n/**\n
* Returns the largest value among all values produced by [selector] function\n
* applied to each element in the array or `null`
if there are no elements.\n
* If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*/\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.maxOfOrNull(selector: (Long) -
> Double): Double? {\n  if (isEmpty()) return null\n  var maxValue = selector(this[0])\n  for (i in 1..lastIndex)
{\n    val v = selector(this[i])\n    maxValue = maxOf(maxValue, v)\n  }\n  return maxValue\n}\n\n/**\n
* Returns the largest value among all values produced by [selector] function\n
* applied to each element in the array
or `null` if there are no elements.\n
* If any of values produced by [selector] function is `NaN`, the returned
result is `NaN`.\n
*/\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.maxOfOrNull(selector:
(Float) -> Double): Double? {\n  if (isEmpty()) return null\n  var maxValue = selector(this[0])\n  for (i in
1..lastIndex) {\n    val v = selector(this[i])\n    maxValue = maxOf(maxValue, v)\n  }\n  return
maxValue\n}\n\n/**\n
* Returns the largest value among all values produced by [selector] function\n
* applied to each element in the array or `null` if there are no elements.\n
* If any of values produced by [selector] function

```

is `NaN`, the returned result is `NaN`.\n

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.maxOfOrNull(selector:\n(Double) -> Double): Double? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in\n1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return\nmaxValue\n}\n\n/**\n * Returns the largest value among all values
```

produced by [selector] function\n \* applied to each element in the array or `null` if there are no elements.\n \* \n \* If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.maxOfOrNull(selector:\n(Boolean) -> Double): Double? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in\n1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return\nmaxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic\ninline fun CharArray.maxOfOrNull(selector: (Char) -> Double): Double? {\n    if (isEmpty()) return null\n    var\nmaxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue =\nmaxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced\nby [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.maxOfOrNull(selector:\n(T) -> Float): Float? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex)\n{\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.maxOfOrNull(selector: (Byte) ->\nFloat): Float? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.maxOfOrNull(selector: (Short) ->\nFloat): Float? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.maxOfOrNull(selector: (Int) ->\nFloat): Float? {\n    if (isEmpty()) return\nnull\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue\n= maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values
```

produced by [selector] function\n \* applied to each element in the array or `null` if there are no elements.\n \* \n \* If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.maxOrNull(selector: (Long) -> Float): Float? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.maxOrNull(selector: (Float) -> Float): Float? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.maxOrNull(selector: (Double) -> Float): Float? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.maxOrNull(selector: (Boolean) -> Float): Float? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.maxOrNull(selector: (Char) -> Float): Float? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Array<out T>.maxOrNull(selector: (T) -> R): R? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if (maxValue < v) {\n            maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> ByteArray.maxOrNull(selector: (Byte) -> R): R? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if (maxValue < v) {\n
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maxValue = v\n    }\n    }\n    return maxValue\n}\n\n/>\n
* Returns the largest value among all values produced by [selector] function\n * applied to each element in the
array or `null` if there are no elements.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
ShortArray.maxOrNull(selector: (Short) -> R): R? {\n    if (isEmpty()) return null\n    var maxValue =
selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if (maxValue < v) {\n
maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/>\n
* Returns the largest value among all values produced
by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
IntArray.maxOrNull(selector: (Int) -> R): R? {\n    if (isEmpty()) return null\n    var maxValue =
selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if (maxValue < v) {\n
maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/>\n
* Returns the largest value among all values produced
by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
LongArray.maxOrNull(selector: (Long) -> R): R? {\n    if (isEmpty()) return null\n    var maxValue =
selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if (maxValue < v) {\n
maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/>\n
* Returns the largest value among all values produced
by [selector]
function\n * applied to each element in the array or `null` if there are no elements.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
FloatArray.maxOrNull(selector: (Float) -> R): R? {\n    if (isEmpty()) return null\n    var maxValue =
selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if (maxValue < v) {\n
maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/>\n
* Returns the largest value among all values produced
by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
DoubleArray.maxOrNull(selector: (Double) -> R): R? {\n    if
(isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =
selector(this[i])\n        if (maxValue < v) {\n            maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/>\n
Returns the largest value among all values produced by [selector] function\n * applied to each element in the array
or `null` if there are no elements.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
BooleanArray.maxOrNull(selector: (Boolean) -> R): R? {\n    if (isEmpty()) return null\n    var maxValue =
selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if (maxValue < v) {\n
maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/>\n
* Returns the largest value among all values produced
by [selector] function\n * applied to each element in the array
or `null` if there are no elements.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
CharArray.maxOrNull(selector: (Char) -> R): R? {\n    if (isEmpty()) return null\n    var maxValue =
selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if (maxValue < v) {\n
maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/>\n
* Returns the largest value according to the provided
[comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n *

```

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@throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Array<out
T>.maxOfWith(comparator: Comparator<in R>, selector: (T)
-> R): R {\n    if (isEmpty()) throw NoSuchElementException()\n    var maxV = selector(this[0])\n    for (i in
1..lastIndex) {\n        val v = selector(this[i])\n        if (comparator.compare(maxV, v) < 0) {\n            maxV = v\n        }\n    }\n    return maxV\n}\n\n/**\n * Returns the largest value according to the provided
[comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n *
@throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> ByteArray.maxOfWith(comparator:
Comparator<in R>, selector: (Byte) -> R): R {\n    if (isEmpty()) throw NoSuchElementException()\n    var
maxV = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if
(comparator.compare(maxV, v) < 0) {\n            maxV = v\n        }\n    }\n    return maxV\n}\n\n/**\n * Returns the largest value according to the provided
[comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n *
@throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> ShortArray.maxOfWith(comparator:
Comparator<in R>, selector: (Short) -> R): R {\n    if (isEmpty()) throw NoSuchElementException()\n    var
maxV = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if
(comparator.compare(maxV, v) < 0) {\n            maxV = v\n        }\n    }\n    return maxV\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> IntArray.maxOfWith(comparator:
Comparator<in R>, selector: (Int) -> R): R {\n    if (isEmpty()) throw NoSuchElementException()\n    var maxV =
selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if
(comparator.compare(maxV, v) < 0) {\n            maxV = v\n        }\n    }\n    return maxV\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> LongArray.maxOfWith(comparator:
Comparator<in R>, selector: (Long) -> R): R {\n    if (isEmpty()) throw NoSuchElementException()\n    var
maxV = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if
(comparator.compare(maxV, v) < 0) {\n            maxV = v\n        }\n    }\n    return maxV\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array.\n * \n * @throws
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*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> FloatArray.maxOfWith(comparator:
Comparator<in R>, selector: (Float) -> R): R {\n    if (isEmpty()) throw NoSuchElementException()\n    var
maxV = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if
(comparator.compare(maxV, v) < 0) {\n            maxV = v\n        }\n    }\n    return maxV\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> DoubleArray.maxOfWith(comparator:

```



```

Comparator<in R>, selector: (Double) -> R): R {\n  if (isEmpty()) throw NoSuchElementException()\n  var
maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if
(comparator.compare(maxValue, v) < 0) {\n      maxValue = v\n    }\n  }\n  return maxValue\n}\n\n/**\n *
Returns the largest value according to the provided [comparator]\n * among all values produced by [selector]
function
applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> BooleanArray.maxOfWith(comparator:
Comparator<in R>, selector: (Boolean) -> R): R {\n  if (isEmpty()) throw NoSuchElementException()\n  var
maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if
(comparator.compare(maxValue, v) < 0) {\n      maxValue = v\n    }\n  }\n  return maxValue\n}\n\n/**\n *
Returns the largest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <R> CharArray.maxOfWith(comparator: Comparator<in R>, selector: (Char) -> R): R {\n  if
(isEmpty()) throw NoSuchElementException()\n  var maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n
val v = selector(this[i])\n    if (comparator.compare(maxValue, v) < 0) {\n      maxValue = v\n    }\n  }\n
return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all
values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Array<out
T>.maxOfWithOrNull(comparator: Comparator<in R>, selector: (T) -> R): R? {\n  if (isEmpty()) return null\n
var maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v =
selector(this[i])\n    if (comparator.compare(maxValue, v) < 0) {\n      maxValue = v\n    }\n  }\n  return
maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values
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*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
ByteArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Byte) -> R): R? {\n  if (isEmpty()) return
null\n  var maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if
(comparator.compare(maxValue, v) < 0) {\n      maxValue = v\n    }\n  }\n  return maxValue\n}\n\n/**\n *
Returns the largest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to
each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
ShortArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Short) -> R): R? {\n  if (isEmpty())
return null\n  var maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n
if (comparator.compare(maxValue, v) < 0) {\n      maxValue = v\n    }\n  }\n  return maxValue\n}\n\n/**\n *
Returns the largest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
IntArray.maxOfWithOrNull(comparator:
Comparator<in R>, selector: (Int) -> R): R? {\n  if (isEmpty()) return null\n  var maxValue = selector(this[0])\n
for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (comparator.compare(maxValue, v) < 0) {\n
maxValue = v\n    }\n  }\n  return maxValue\n}\n\n/**\n * Returns the largest value according to the provided

```

[comparator] among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.

```

*\/n@SinceKotlin("1.4")n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)n@OverloadResolution
ByLambdaReturnTypen@kotlin.internal.InlineOnlynpublic inline fun <R>
LongArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Long) -> R): R? {n if (isEmpty())
return nulln var maxValue = selector(this[0])n for (i in 1..lastIndex) {n val v = selector(this[i])n if
(comparator.compare(maxValue, v) < 0) {n maxValue = vn
}n }n return maxValue\n}n/n/**n * Returns the largest value according to the provided [comparator]n *
among all values produced by [selector] function applied to each element in the array or `null` if there are no
elements.n
*\/n@SinceKotlin("1.4")n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)n@OverloadResolution
ByLambdaReturnTypen@kotlin.internal.InlineOnlynpublic inline fun <R>
FloatArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Float) -> R): R? {n if (isEmpty())
return nulln var maxValue = selector(this[0])n for (i in 1..lastIndex) {n val v = selector(this[i])n if
(comparator.compare(maxValue, v) < 0) {n maxValue = vn }n }n return maxValue\n}n/n/**n *
Returns the largest value according to the provided [comparator]n * among all values produced by [selector]
function applied to each element in the array or `null` if there are no elements.n
*\/n@SinceKotlin("1.4")n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)n@OverloadResolution
ByLambdaReturnTypen@kotlin.internal.InlineOnlynpublic
inline fun <R> DoubleArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Double) -> R): R? {n
if (isEmpty()) return nulln var maxValue = selector(this[0])n for (i in 1..lastIndex) {n val v =
selector(this[i])n if (comparator.compare(maxValue, v) < 0) {n maxValue = vn }n }n return
maxValue\n}n/n/**n * Returns the largest value according to the provided [comparator]n * among all values
produced by [selector] function applied to each element in the array or `null` if there are no elements.n
*\/n@SinceKotlin("1.4")n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)n@OverloadResolution
ByLambdaReturnTypen@kotlin.internal.InlineOnlynpublic inline fun <R>
BooleanArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Boolean) -> R): R? {n if (isEmpty())
return nulln var
maxValue = selector(this[0])n for (i in 1..lastIndex) {n val v = selector(this[i])n if
(comparator.compare(maxValue, v) < 0) {n maxValue = vn }n }n return maxValue\n}n/n/**n *
Returns the largest value according to the provided [comparator]n * among all values produced by [selector]
function applied to each element in the array or `null` if there are no elements.n
*\/n@SinceKotlin("1.4")n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)n@OverloadResolution
ByLambdaReturnTypen@kotlin.internal.InlineOnlynpublic inline fun <R>
CharArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Char) -> R): R? {n if (isEmpty()) return
nulln var maxValue = selector(this[0])n for (i in 1..lastIndex) {n val v = selector(this[i])n if
(comparator.compare(maxValue, v) < 0) {n maxValue = vn }n }n return maxValue\n}n/n/**n *
Returns the largest element or `null` if there
are no elements.n *n * If any of elements is `NaN` returns `NaN`.n *\/n@SinceKotlin("1.4")npublic fun
Array<out Double>.maxOrNull(): Double? {n if (isEmpty()) return nulln var max = this[0]n for (i in
1..lastIndex) {n val e = this[i]n max = maxOf(max, e)n }n return max\n}n/n/**n * Returns the
largest element or `null` if there are no elements.n *n * If any of elements is `NaN` returns `NaN`.n
*\/n@SinceKotlin("1.4")npublic fun Array<out Float>.maxOrNull(): Float? {n if (isEmpty()) return nulln var
max = this[0]n for (i in 1..lastIndex) {n val e = this[i]n max = maxOf(max, e)n }n return
max\n}n/n/**n * Returns the largest element or `null` if there are no elements.n *\/n@SinceKotlin("1.4")npublic
fun <T : Comparable<T>> Array<out T>.maxOrNull(): T? {n if (isEmpty()) return nulln var max = this[0]n
for (i in 1..lastIndex) {n val e = this[i]n if (max < e) max = e\n}

```

```

    }
    return max
}

Returns the largest element or `null` if there are no elements.

@SinceKotlin("1.4")
public fun ByteArray.maxOrNull(): Byte? {
    if (isEmpty()) return null
    var max = this[0]
    for (i in 1..lastIndex) {
        val e = this[i]
        if (max < e) max = e
    }
    return max
}

Returns the largest element or `null` if there are no elements.

@SinceKotlin("1.4")
public fun ShortArray.maxOrNull(): Short? {
    if (isEmpty()) return null
    var max = this[0]
    for (i in 1..lastIndex) {
        val e = this[i]
        if (max < e) max = e
    }
    return max
}

Returns the largest element or `null` if there are no elements.

@SinceKotlin("1.4")
public fun IntArray.maxOrNull(): Int? {
    if (isEmpty()) return null
    var max = this[0]
    for (i in 1..lastIndex) {
        val e = this[i]
        if (max < e) max = e
    }
    return max
}

Returns the largest element or `null` if there are no elements.

@SinceKotlin("1.4")
public fun LongArray.maxOrNull(): Long? {
    if (isEmpty()) return null
    var max = this[0]
    for (i in 1..lastIndex) {
        val e = this[i]
        if (max < e) max = e
    }
    return max
}

Returns the largest element or `null` if there are no elements.

* If any of elements is `NaN` returns `NaN`.

@SinceKotlin("1.4")
public fun FloatArray.maxOrNull(): Float? {
    if (isEmpty()) return null
    var max = this[0]
    for (i in 1..lastIndex) {
        val e = this[i]
        max = maxOf(max, e)
    }
    return max
}

Returns the largest element or `null` if there are no elements.

* If any of elements is `NaN` returns `NaN`.

@SinceKotlin("1.4")
public fun DoubleArray.maxOrNull(): Double? {
    if (isEmpty()) return null
    var max = this[0]
    for (i in 1..lastIndex) {
        val e = this[i]
        max = maxOf(max, e)
    }
    return max
}

Returns the largest element or `null` if there are no elements.

@SinceKotlin("1.4")
public fun CharArray.maxOrNull(): Char? {
    if (isEmpty()) return null
    var max = this[0]
    for (i in 1..lastIndex) {
        val e = this[i]
        if (max < e) max = e
    }
    return max
}

Returns the first element having the largest value according to the provided [comparator].

* @throws NoSuchElementException if the array is empty.

@SinceKotlin("1.7")
@kotlin.jvm.JvmName("maxWithOrThrow")
@Suppress("CONFLICTING_OVERLOADS")
public fun <T> Array<out T>.maxWith(comparator: Comparator<in T>): T {
    if (isEmpty()) throw NoSuchElementException()
    var max = this[0]
    for (i in 1..lastIndex) {
        val e = this[i]
        if (comparator.compare(max, e) < 0) max = e
    }
    return max
}

Returns the first element having the largest value according to the provided [comparator].

* @throws NoSuchElementException if the array is empty.

@SinceKotlin("1.7")
@kotlin.jvm.JvmName("maxWithOrThrow")
@Suppress("CONFLICTING_OVERLOADS")
public fun ByteArray.maxWith(comparator: Comparator<in Byte>): Byte {
    if (isEmpty()) throw NoSuchElementException()
    var max = this[0]
    for (i in 1..lastIndex) {
        val e = this[i]
        if (comparator.compare(max, e) < 0) max = e
    }
    return max
}

Returns the first element having the largest value according to the provided [comparator].

* @throws NoSuchElementException if the array is empty.

@SinceKotlin("1.7")
@kotlin.jvm.JvmName("maxWithOrThrow")
@Suppress("CONFLICTING_OVERLOADS")
public fun ShortArray.maxWith(comparator: Comparator<in Short>): Short {
    if (isEmpty()) throw NoSuchElementException()
    var max = this[0]
    for (i in 1..lastIndex) {
        val e = this[i]
        if (comparator.compare(max, e) < 0) max = e
    }
    return max
}

Returns the first element having the largest value according to the provided [comparator].

* @throws NoSuchElementException if the array is empty.

@SinceKotlin("1.7")
@kotlin.jvm.JvmName("maxWithOrThrow")
@Suppress("CONFLICTING_OVERLOADS")
public fun IntArray.maxWith(comparator: Comparator<in Int>): Int {
    if (isEmpty()) throw NoSuchElementException()
    var max = this[0]
    for (i in 1..lastIndex) {
        val e = this[i]
        if (comparator.compare(max, e) < 0) max = e
    }
    return max
}

Returns the first element having the largest value according to the provided [comparator].

* @throws NoSuchElementException if the array is empty.

@SinceKotlin("1.7")
@kotlin.jvm.JvmName("maxWithOrThrow")
@Suppress("CONFLICTING_OVERLOADS")

```

```

LOADS\`)npublic fun LongArray.maxWith(comparator: Comparator<in Long>): Long {n  if (isEmpty()) throw
NoSuchElementException()\n  var max = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n
    if (comparator.compare(max, e) < 0) max = e\n  }\n  return max\n}\n\n/**\n * Returns the first element
having the largest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the
array is empty.\n
*\n*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxWithOrThrow")\n@Suppress("CONFLICTING_OVER
LOADS\`)npublic fun FloatArray.maxWith(comparator: Comparator<in Float>): Float {n  if (isEmpty()) throw
NoSuchElementException()\n  var max = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n  if
(comparator.compare(max, e) < 0) max = e\n  }\n  return max\n}\n\n/**\n * Returns the first element having the
largest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is
empty.\n
*\n*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxWithOrThrow")\n@Suppress("CONFLICTING_OVER
LOADS\`)npublic fun DoubleArray.maxWith(comparator: Comparator<in Double>): Double {n  if (isEmpty())
throw NoSuchElementException()\n  var max = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n  if
(comparator.compare(max, e) < 0) max = e\n  }\n  return max\n}\n\n/**\n * Returns the first element having the
largest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is
empty.\n
*\n*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxWithOrThrow")\n@Suppress("CONFLICTING_OVER
LOADS\`)npublic fun BooleanArray.maxWith(comparator: Comparator<in Boolean>): Boolean {n  if
(isEmpty()) throw NoSuchElementException()\n  var max = this[0]\n  for (i in 1..lastIndex) {\n    val e =
this[i]\n    if (comparator.compare(max, e) < 0) max = e\n  }\n  return max\n}\n\n/**\n * Returns the first
element having the largest value according to the provided [comparator].\n * \n * @throws
NoSuchElementException if the array is empty.\n
*\n*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxWithOrThrow")\n@Suppress("CONFLICTING_OVER
LOADS\`)npublic
fun CharArray.maxWith(comparator: Comparator<in Char>): Char {n  if (isEmpty()) throw
NoSuchElementException()\n  var max = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n  if
(comparator.compare(max, e) < 0) max = e\n  }\n  return max\n}\n\n/**\n * Returns the first element having the
largest value according to the provided [comparator] or `null` if there are no elements.\n
*\n*\n@SinceKotlin("1.4")\npublic fun <T> Array<out T>.maxWithOrNull(comparator: Comparator<in T>): T? {n
if (isEmpty()) return null\n  var max = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n  if
(comparator.compare(max, e) < 0) max = e\n  }\n  return max\n}\n\n/**\n * Returns the first element having the
largest value according to the provided [comparator] or `null` if there are no elements.\n
*\n*\n@SinceKotlin("1.4")\npublic fun ByteArray.maxWithOrNull(comparator: Comparator<in Byte>): Byte? {n
if (isEmpty())
return null\n  var max = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if (comparator.compare(max,
e) < 0) max = e\n  }\n  return max\n}\n\n/**\n * Returns the first element having the largest value according to the
provided [comparator] or `null` if there are no elements.\n
*\n*\n@SinceKotlin("1.4")\npublic fun
ShortArray.maxWithOrNull(comparator: Comparator<in Short>): Short? {n  if (isEmpty()) return null\n  var max
= this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if (comparator.compare(max, e) < 0) max = e\n  }\n
return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator]
or `null` if there are no elements.\n
*\n*\n@SinceKotlin("1.4")\npublic fun IntArray.maxWithOrNull(comparator:
Comparator<in Int>): Int? {n  if (isEmpty()) return null\n  var max = this[0]\n  for (i in 1..lastIndex) {\n
val e = this[i]\n    if (comparator.compare(max, e)
< 0) max = e\n  }\n  return max\n}\n\n/**\n * Returns the first element having the largest value according to the
provided [comparator] or `null` if there are no elements.\n
*\n*\n@SinceKotlin("1.4")\npublic fun
LongArray.maxWithOrNull(comparator: Comparator<in Long>): Long? {n  if (isEmpty()) return null\n  var max
= this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if (comparator.compare(max, e) < 0) max = e\n  }\n
}

```

```

return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator]
or `null` if there are no elements.\n *\n@SinceKotlin("1.4")\npublic fun FloatArray.maxOrNull(comparator:
Comparator<in Float>): Float? {\n if (isEmpty()) return null\n var max = this[0]\n for (i in 1..lastIndex) {\n
val e = this[i]\n if (comparator.compare(max, e) < 0) max = e\n }\n return max\n}\n\n/**\n * Returns the
first element having the largest value according to the provided [comparator]
or `null` if there are no elements.\n *\n@SinceKotlin("1.4")\npublic fun
DoubleArray.maxOrNull(comparator: Comparator<in Double>): Double? {\n if (isEmpty()) return null\n
var max = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (comparator.compare(max, e) < 0) max =
e\n }\n return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided
[comparator] or `null` if there are no elements.\n *\n@SinceKotlin("1.4")\npublic fun
BooleanArray.maxOrNull(comparator: Comparator<in Boolean>): Boolean? {\n if (isEmpty()) return null\n
var max = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (comparator.compare(max, e) < 0) max =
e\n }\n return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided
[comparator] or `null` if there are no elements.\n *\n@SinceKotlin("1.4")\npublic fun
CharArray.maxOrNull(comparator:
Comparator<in Char>): Char? {\n if (isEmpty()) return null\n var max = this[0]\n for (i in 1..lastIndex) {\n
val e = this[i]\n if (comparator.compare(max, e) < 0) max = e\n }\n return max\n}\n\n/**\n * Returns the
smallest element.\n * \n * If any of elements is `NaN` returns `NaN`.\n * \n * @throws NoSuchElementException if
the array is empty.\n
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minOrThrow")\n@Suppress("CONFLICTING_OVERLOA
DS")\npublic fun Array<out Double>.min(): Double {\n if (isEmpty()) throw NoSuchElementException()\n var
min = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n min = minOf(min, e)\n }\n return
min\n}\n\n/**\n * Returns the smallest element.\n * \n * If any of elements is `NaN` returns `NaN`.\n * \n *
@throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minOrThrow")\n@Suppress("CONFLICTING_OVERLOA
DS")\npublic fun Array<out Float>.min():
Float {\n if (isEmpty()) throw NoSuchElementException()\n var min = this[0]\n for (i in 1..lastIndex) {\n
val e = this[i]\n min = minOf(min, e)\n }\n return min\n}\n\n/**\n * Returns the smallest element.\n * \n *
@throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minOrThrow")\n@Suppress("CONFLICTING_OVERLOA
DS")\npublic fun <T : Comparable<T>> Array<out T>.min(): T {\n if (isEmpty()) throw
NoSuchElementException()\n var min = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (min > e)
min = e\n }\n return min\n}\n\n/**\n * Returns the smallest element.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minOrThrow")\n@Suppress("CONFLICTING_OVERLOA
DS")\npublic fun ByteArray.min(): Byte {\n if (isEmpty()) throw NoSuchElementException()\n var min =
this[0]\n for (i in 1..lastIndex) {\n
val e = this[i]\n if (min > e) min = e\n }\n return min\n}\n\n/**\n * Returns the smallest element.\n * \n
*\n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minOrThrow")\n@Suppress("CONFLICTING_OVERLOA
DS")\npublic fun ShortArray.min(): Short {\n if (isEmpty()) throw NoSuchElementException()\n var min =
this[0]\n for (i in 1..lastIndex) {\n
val e = this[i]\n if (min > e) min = e\n }\n return min\n}\n\n/**\n * Returns the smallest element.\n * \n
*\n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minOrThrow")\n@Suppress("CONFLICTING_OVERLOA
DS")\npublic fun IntArray.min(): Int {\n if (isEmpty()) throw NoSuchElementException()\n var min = this[0]\n
for (i in 1..lastIndex) {\n
val e = this[i]\n if (min > e) min = e\n }\n return min\n}\n\n/**\n * Returns the
smallest element.\n * \n * @throws NoSuchElementException

```

if the array is empty.\n

```
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minOrThrow")\n@Suppress("CONFLICTING_OVERLOADS")\npublic fun LongArray.min(): Long {\n    if (isEmpty()) throw NoSuchElementException()\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (min > e) min = e\n    }\n    return min\n}\n\n/**\n * Returns the smallest element.\n * \n * If any of elements is `NaN` returns `NaN`.\n * \n * @throws\n * NoSuchElementException if the array is empty.\n
```

```
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minOrThrow")\n@Suppress("CONFLICTING_OVERLOADS")\npublic fun FloatArray.min(): Float {\n    if (isEmpty()) throw NoSuchElementException()\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        min = minOf(min, e)\n    }\n    return min\n}\n\n/**\n * Returns the smallest element.\n * \n * If any of elements is `NaN` returns `NaN`.\n * \n * @throws\n * NoSuchElementException if the array is empty.\n
```

```
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minOrThrow")\n@Suppress("CONFLICTING_OVERLOADS")\npublic fun DoubleArray.min(): Double {\n    if (isEmpty()) throw NoSuchElementException()\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        min = minOf(min, e)\n    }\n    return min\n}\n\n/**\n * Returns the smallest element.\n * \n * @throws\n * NoSuchElementException if the array is empty.\n
```

```
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minOrThrow")\n@Suppress("CONFLICTING_OVERLOADS")\npublic fun CharArray.min(): Char {\n    if (isEmpty()) throw NoSuchElementException()\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (min > e) min = e\n    }\n    return min\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function.\n * \n * @throws\n * NoSuchElementException if the array is empty.\n * \n * @sample\n
```

samples.collections.Collections.Aggregates.minBy\n

```
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minByOrThrow")\n@Suppress("CONFLICTING_OVERLOADS")\npublic\n    inline fun <T, R : Comparable<R>> Array<out T>.minBy(selector: (T) -> R): T {\n        if (isEmpty()) throw\n        NoSuchElementException()\n        var minElem = this[0]\n        val lastIndex = this.lastIndex\n        if (lastIndex == 0)\n            return minElem\n        var minValue = selector(minElem)\n        for (i in 1..lastIndex) {\n            val e = this[i]\n            val v =\n            selector(e)\n            if (minValue > v) {\n                minElem = e\n                minValue = v\n            }\n        }\n        return\n        minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function.\n * \n * @throws\n * NoSuchElementException if the array is empty.\n * \n * @sample\n
```

samples.collections.Collections.Aggregates.minBy\n

```
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minByOrThrow")\n@Suppress("CONFLICTING_OVERLOADS")\npublic inline fun <R : Comparable<R>> ByteArray.minBy(selector: (Byte) -> R): Byte {\n    if (isEmpty())\n        throw\n        NoSuchElementException()\n    var minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0)\n        return minElem\n    var minValue = selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v =\n        selector(e)\n        if (minValue > v) {\n            minElem = e\n            minValue = v\n        }\n    }\n    return\n    minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function.\n * \n * @throws\n * NoSuchElementException if the array is empty.\n * \n * @sample\n
```

samples.collections.Collections.Aggregates.minBy\n

```
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minByOrThrow")\n@Suppress("CONFLICTING_OVERLOADS")\npublic inline fun <R : Comparable<R>> ShortArray.minBy(selector: (Short) -> R): Short {\n    if\n    (isEmpty()) throw\n    NoSuchElementException()\n    var minElem = this[0]\n    val lastIndex = this.lastIndex\n    if\n    (lastIndex == 0) return\n    minElem\n    var minValue = selector(minElem)\n    for (i in 1..lastIndex)\n        {\n            val e = this[i]\n            val v = selector(e)\n            if (minValue > v) {\n                minElem = e\n                minValue\n                = v\n            }\n        }\n    return\n    minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given\n * function.\n * \n * @throws\n * NoSuchElementException if the array is empty.\n * \n * @sample\n
```

samples.collections.Collections.Aggregates.minBy\n

```
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minByOrThrow")\n@Suppress("CONFLICTING_OVERLOADS")\n
```

```

ADS`)npublic inline fun <R : Comparable<R>> IntArray.minBy(selector: (Int) -> R): Int {n  if (isEmpty())
throw NoSuchElementException()n  var minElem = this[0]n  val lastIndex = this.lastIndexn  if (lastIndex ==
0) return minElemn  var minValue = selector(minElem)n  for (i in 1..lastIndex) {n    val e = this[i]n    val
v = selector(e)n    if (minValue > v) {n      minElem = e\n      minValue = v\n    }n  }n  return
minElem}n}n/**n * Returns
the first element yielding the smallest value of the given function.n * n * @throws NoSuchElementException if
the array is empty.n * n * @sample samples.collections.Collections.Aggregates.minByn
*/n@SinceKotlin("1.7")n@kotlin.jvm.JvmName("minByOrThrow")n@Suppress("CONFLICTING_OVERLO
ADS`)npublic inline fun <R : Comparable<R>> LongArray.minBy(selector: (Long) -> R): Long {n  if
(isEmpty()) throw NoSuchElementException()n  var minElem = this[0]n  val lastIndex = this.lastIndexn  if
(lastIndex == 0) return minElemn  var minValue = selector(minElem)n  for (i in 1..lastIndex) {n    val e =
this[i]n    val v = selector(e)n    if (minValue > v) {n      minElem = e\n      minValue = v\n    }n
  }n  return minElem}n}n/**n * Returns the first element yielding the smallest value of the given function.n * n
* @throws NoSuchElementException if the array is empty.n * n * @sample
samples.collections.Collections.Aggregates.minByn
*/n@SinceKotlin("1.7")n@kotlin.jvm.JvmName("minByOrThrow")n@Suppress("CONFLICTING_OVERLO
ADS`)npublic inline fun <R : Comparable<R>> FloatArray.minBy(selector: (Float) -> R): Float {n  if
(isEmpty()) throw NoSuchElementException()n  var minElem = this[0]n  val lastIndex = this.lastIndexn  if
(lastIndex == 0) return minElemn  var minValue = selector(minElem)n  for (i in 1..lastIndex) {n    val e =
this[i]n    val v = selector(e)n    if (minValue > v) {n      minElem = e\n      minValue = v\n    }n
  }n  return minElem}n}n/**n * Returns the first element yielding the smallest value of the given function.n * n
* @throws NoSuchElementException if the array is empty.n * n * @sample
samples.collections.Collections.Aggregates.minByn
*/n@SinceKotlin("1.7")n@kotlin.jvm.JvmName("minByOrThrow")n@Suppress("CONFLICTING_OVERLO
ADS`)npublic inline fun <R : Comparable<R>> DoubleArray.minBy(selector: (Double) ->
R): Double {n  if (isEmpty()) throw NoSuchElementException()n  var minElem = this[0]n  val lastIndex =
this.lastIndexn  if (lastIndex == 0) return minElemn  var minValue = selector(minElem)n  for (i in
1..lastIndex) {n    val e = this[i]n    val v = selector(e)n    if (minValue > v) {n      minElem = e\n
minValue = v\n    }n  }n  return minElem}n}n/**n * Returns the first element yielding the smallest value
of the given function.n * n * @throws NoSuchElementException if the array is empty.n * n * @sample
samples.collections.Collections.Aggregates.minByn
*/n@SinceKotlin("1.7")n@kotlin.jvm.JvmName("minByOrThrow")n@Suppress("CONFLICTING_OVERLO
ADS`)npublic inline fun <R : Comparable<R>> BooleanArray.minBy(selector: (Boolean) -> R): Boolean {n  if
(isEmpty()) throw NoSuchElementException()n  var minElem = this[0]n  val lastIndex = this.lastIndexn  if
(lastIndex == 0) return minElemn  var minValue
= selector(minElem)n  for (i in 1..lastIndex) {n    val e = this[i]n    val v = selector(e)n    if (minValue >
v) {n      minElem = e\n      minValue = v\n    }n  }n  return minElem}n}n/**n * Returns the first
element yielding the smallest value of the given function.n * n * @throws NoSuchElementException if the array is
empty.n * n * @sample samples.collections.Collections.Aggregates.minByn
*/n@SinceKotlin("1.7")n@kotlin.jvm.JvmName("minByOrThrow")n@Suppress("CONFLICTING_OVERLO
ADS`)npublic inline fun <R : Comparable<R>> CharArray.minBy(selector: (Char) -> R): Char {n  if
(isEmpty()) throw NoSuchElementException()n  var minElem = this[0]n  val lastIndex = this.lastIndexn  if
(lastIndex == 0) return minElemn  var minValue = selector(minElem)n  for (i in 1..lastIndex) {n    val e =
this[i]n    val v = selector(e)n    if (minValue > v) {n      minElem = e\n      minValue = v\n    }n
  }n  return minElem}n}n/**n * Returns the first element yielding the smallest value of the given function
or `null` if there are no elements.n * n * @sample samples.collections.Collections.Aggregates.minByOrNulln
*/n@SinceKotlin("1.4")npublic inline fun <T, R : Comparable<R>> Array<out T>.minByOrNull(selector: (T) ->
R): T? {n  if (isEmpty()) return nulln  var minElem = this[0]n  val lastIndex = this.lastIndexn  if (lastIndex

```

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== 0) return minElem\n    var minValue = selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (minValue > v) {\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n\n@SinceKotlin("1.4")\npublic inline fun <R : Comparable<R>> ByteArray.minByOrNull(selector: (Byte) -> R): Byte? {\n    if (isEmpty()) return null\n    var minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var minValue = selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (minValue > v) {\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n\n@SinceKotlin("1.4")\npublic inline fun <R : Comparable<R>> ShortArray.minByOrNull(selector: (Short) -> R): Short? {\n    if (isEmpty()) return null\n    var minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var minValue = selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (minValue > v) {\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n\n@SinceKotlin("1.4")\npublic inline fun <R : Comparable<R>> IntArray.minByOrNull(selector: (Int) -> R): Int? {\n    if (isEmpty()) return null\n    var minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var minValue = selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (minValue > v) {\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n\n@SinceKotlin("1.4")\npublic inline fun <R : Comparable<R>> LongArray.minByOrNull(selector: (Long) -> R): Long? {\n    if (isEmpty()) return null\n    var minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var minValue = selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (minValue > v) {\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n\n@SinceKotlin("1.4")\npublic inline fun <R : Comparable<R>> FloatArray.minByOrNull(selector: (Float) -> R): Float? {\n    if (isEmpty()) return null\n    var minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var minValue = selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (minValue > v) {\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n\n@SinceKotlin("1.4")\npublic inline fun <R : Comparable<R>> DoubleArray.minByOrNull(selector: (Double) -> R): Double? {\n    if (isEmpty()) return null\n    var minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var minValue = selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (minValue > v) {\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n\n@SinceKotlin("1.4")\npublic inline fun <R : Comparable<R>> BooleanArray.minByOrNull(selector: (Boolean) -> R): Boolean? {\n    if (isEmpty()) return null\n    var minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var minValue = selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (minValue > v) {\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n
```



```

samples.collections.Collections.Aggregates.minByOrNull\n *\n@SinceKotlin("1.4")\npublic inline fun <R :
Comparable<R>> CharArray.minByOrNull(selector: (Char) -> R): Char? {\n if (isEmpty()) return null\n var
minElem = this[0]\n val lastIndex
= this.lastIndex\n if (lastIndex == 0) return minElem\n var minValue = selector(minElem)\n for (i in
1..lastIndex) {\n val e = this[i]\n val v = selector(e)\n if (minValue > v) {\n minElem = e\n
minValue = v\n }\n }\n return minElem\n}\n\n**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector]
function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.minOf(selector: (T) ->
Double): Double {\n if (isEmpty()) throw NoSuchElementException()\n var minValue = selector(this[0])\n for
(i in 1..lastIndex) {\n val v = selector(this[i])\n minValue
= minOf(minValue, v)\n }\n return
minValue\n}\n\n**\n * Returns the smallest value among all values
produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by
[selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is
empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.minOf(selector: (Byte) ->
Double): Double {\n if (isEmpty()) throw NoSuchElementException()\n var minValue = selector(this[0])\n for
(i in 1..lastIndex) {\n val v = selector(this[i])\n minValue = minOf(minValue, v)\n }\n return
minValue\n}\n\n**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the
returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.minOf(selector: (Short) ->
Double): Double {\n if (isEmpty()) throw NoSuchElementException()\n var minValue = selector(this[0])\n for
(i in 1..lastIndex) {\n val v = selector(this[i])\n minValue = minOf(minValue, v)\n }\n return
minValue\n}\n\n**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun IntArray.minOf(selector: (Int) -> Double): Double {\n if (isEmpty()) throw
NoSuchElementException()\n var minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v =
selector(this[i])\n minValue = minOf(minValue, v)\n }\n return minValue\n}\n\n**\n * Returns the smallest
value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of
values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.minOf(selector: (Long) ->
Double): Double {\n if (isEmpty()) throw NoSuchElementException()\n var minValue = selector(this[0])\n for
(i in 1..lastIndex) {\n val v = selector(this[i])\n minValue = minOf(minValue,
v)\n }\n return minValue\n}\n\n**\n * Returns the smallest value among all values produced by [selector]
function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`,
the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.minOf(selector: (Float) ->
Double): Double {\n if (isEmpty()) throw NoSuchElementException()\n var minValue = selector(this[0])\n for

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(i in 1..lastIndex) {\n    val v = selector(this[i])\n    minValue = minOf(minValue, v)\n } return
minValue}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result
is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.minOf(selector: (Double) ->
Double): Double {\n    if (isEmpty()) throw NoSuchElementException()\n    var minValue = selector(this[0])\n    for
(i in 1..lastIndex) {\n        val v = selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return
minValue}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline
fun BooleanArray.minOf(selector: (Boolean) -> Double): Double {\n    if (isEmpty()) throw
NoSuchElementException()\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =
selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return minValue}\n\n/**\n * Returns the smallest
value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of
values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.minOf(selector: (Char) ->
Double): Double {\n    if (isEmpty()) throw NoSuchElementException()\n    var minValue = selector(this[0])\n    for
(i in 1..lastIndex) {\n        val v = selector(this[i])\n        minValue = minOf(minValue,
v)\n    }\n    return minValue}\n\n/**\n * Returns the smallest value among all values produced by [selector]
function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`,
the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.minOf(selector: (T) ->
Float): Float {\n    if (isEmpty()) throw NoSuchElementException()\n    var minValue = selector(this[0])\n    for (i in
1..lastIndex) {\n        val v = selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return
minValue}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result
is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.minOf(selector: (Byte) -> Float):
Float {\n    if (isEmpty()) throw NoSuchElementException()\n    var minValue = selector(this[0])\n    for (i in
1..lastIndex) {\n        val v = selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return
minValue}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.minOf(selector:
(Short) -> Float): Float {\n    if (isEmpty()) throw NoSuchElementException()\n    var minValue =
selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        minValue = minOf(minValue, v)\n
    }\n    return minValue}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n *
applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned
result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

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ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.minOf(selector: (Int) -> Float):
Float {\n  if (isEmpty()) throw NoSuchElementException()\n  var minValue = selector(this[0])\n  for (i in
1..lastIndex) {\n    val v = selector(this[i])\n    minValue = minOf(minValue, v)\n  }\n  return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.minOf(selector: (Long) ->
Float): Float {\n  if (isEmpty()) throw NoSuchElementException()\n  var minValue = selector(this[0])\n  for (i in
1..lastIndex) {\n    val v = selector(this[i])\n    minValue = minOf(minValue, v)\n  }\n  return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.minOf(selector: (Float) -> Float):
Float {\n  if (isEmpty()) throw NoSuchElementException()\n  var minValue = selector(this[0])\n  for (i in
1..lastIndex) {\n    val v = selector(this[i])\n    minValue = minOf(minValue, v)\n  }\n  return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.minOf(selector:
(Double) -> Float): Float {\n  if (isEmpty()) throw NoSuchElementException()\n  var minValue =
selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    minValue = minOf(minValue, v)\n
}\n  return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n *
applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned
result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.minOf(selector: (Boolean) ->
Float): Float {\n  if (isEmpty()) throw NoSuchElementException()\n  var minValue = selector(this[0])\n  for (i in
1..lastIndex) {\n    val v = selector(this[i])\n    minValue = minOf(minValue, v)\n  }\n  return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the
array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n *
@throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.minOf(selector: (Char) -> Float):
Float {\n  if (isEmpty()) throw NoSuchElementException()\n  var minValue = selector(this[0])\n  for (i in
1..lastIndex) {\n    val v = selector(this[i])\n    minValue = minOf(minValue, v)\n  }\n  return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <T, R : Comparable<R>> Array<out T>.minOf(selector: (T) -> R): R {\n  if (isEmpty()) throw
NoSuchElementException()\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v =
selector(this[i])\n    if (minValue > v) {\n      minValue = v\n    }\n  }\n  return minValue\n}\n\n/**\n *
Returns the smallest value among all values produced by [selector] function\n * applied to each element in the

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array.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
ByteArray.minOf(selector: (Byte) -> R): R {\n if (isEmpty()) throw NoSuchElementException()\n var minValue
= selector(this[0])\n for (i in 1..lastIndex) {\n val
v = selector(this[i])\n if (minValue > v) {\n minValue = v\n }\n }\n return minValue}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the
array.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
ShortArray.minOf(selector: (Short) -> R): R {\n if (isEmpty()) throw NoSuchElementException()\n var
minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if (minValue > v) {\n
minValue = v\n }\n }\n return minValue}\n\n/**\n * Returns the smallest value among all values
produced by [selector] function\n * applied to each element in the array.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
IntArray.minOf(selector: (Int) -> R): R {\n if (isEmpty()) throw NoSuchElementException()\n var minValue =
selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if (minValue > v) {\n
minValue = v\n }\n }\n return minValue}\n\n/**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the array.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
LongArray.minOf(selector: (Long) -> R): R {\n if (isEmpty()) throw NoSuchElementException()\n var
minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if (minValue > v) {\n
minValue = v\n }\n }\n return minValue}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n *
applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
FloatArray.minOf(selector: (Float) -> R): R {\n if (isEmpty()) throw NoSuchElementException()\n var
minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if (minValue > v) {\n
minValue = v\n }\n }\n return minValue}\n\n/**\n * Returns the smallest value among all values
produced by [selector] function\n * applied to each element in the array.\n * \n *
@throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
DoubleArray.minOf(selector: (Double) -> R): R {\n if (isEmpty()) throw NoSuchElementException()\n var
minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if (minValue > v) {\n
minValue = v\n }\n }\n return minValue}\n\n/**\n * Returns the smallest value among all values
produced by [selector] function\n * applied to each element in the array.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
BooleanArray.minOf(selector: (Boolean) -> R): R {\n if (isEmpty())
throw NoSuchElementException()\n var minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v =
selector(this[i])\n if (minValue > v) {\n minValue = v\n }\n }\n return minValue}\n\n/**\n *

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Returns the smallest value among all values produced by [selector] function applied to each element in the array. @throws NoSuchElementException if the array is empty.

```

*\/n@SinceKotlin("1.4")n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)n@OverloadResolution
ByLambdaReturnTypen@kotlin.internal.InlineOnlynpublic inline fun <R : Comparable<R>>
CharArray.minOf(selector: (Char) -> R): R {n if (isEmpty()) throw NoSuchElementException()n var minValue
= selector(this[0])n for (i in 1..lastIndex) {n val v = selector(this[i])n if (minValue > v) {n
minValue = v\n }n }n return minValue\n}n/n/**n * Returns the smallest value among all values produced
by [selector]
functionn * applied to each element in the array or `null` if there are no elements.n * n * If any of values
produced by [selector] function is `NaN`, the returned result is `NaN`.n
*\/n@SinceKotlin("1.4")n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)n@OverloadResolution
ByLambdaReturnTypen@kotlin.internal.InlineOnlynpublic inline fun <T> Array<out T>.minOrNull(selector:
(T) -> Double): Double? {n if (isEmpty()) return nulln var minValue = selector(this[0])n for (i in
1..lastIndex) {n val v = selector(this[i])n minValue = minOf(minValue, v)n }n return
minValue\n}n/n/**n * Returns the smallest value among all values produced by [selector] functionn * applied to
each element in the array or `null` if there are no elements.n * n * If any of values produced by [selector] function
is `NaN`, the returned result is `NaN`.n
*\/n@SinceKotlin("1.4")n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)n@OverloadResolution
ByLambdaReturnTypen@kotlin.internal.InlineOnlynpublic
inline fun ByteArray.minOrNull(selector: (Byte) -> Double): Double? {n if (isEmpty()) return nulln var
minValue = selector(this[0])n for (i in 1..lastIndex) {n val v = selector(this[i])n minValue =
minOf(minValue, v)n }n return minValue\n}n/n/**n * Returns the smallest value among all values produced
by [selector] functionn * applied to each element in the array or `null` if there are no elements.n * n * If any of
values produced by [selector] function is `NaN`, the returned result is `NaN`.n
*\/n@SinceKotlin("1.4")n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)n@OverloadResolution
ByLambdaReturnTypen@kotlin.internal.InlineOnlynpublic inline fun ShortArray.minOrNull(selector: (Short) -
> Double): Double? {n if (isEmpty()) return nulln var minValue = selector(this[0])n for (i in 1..lastIndex) {n
val v = selector(this[i])n minValue
= minOf(minValue, v)n }n return minValue\n}n/n/**n * Returns the smallest value among all values
produced by [selector] functionn * applied to each element in the array or `null` if there are no elements.n * n * If
any of values produced by [selector] function is `NaN`, the returned result is `NaN`.n
*\/n@SinceKotlin("1.4")n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)n@OverloadResolution
ByLambdaReturnTypen@kotlin.internal.InlineOnlynpublic inline fun IntArray.minOrNull(selector: (Int) ->
Double): Double? {n if (isEmpty()) return nulln var minValue = selector(this[0])n for (i in 1..lastIndex) {n
val v = selector(this[i])n minValue = minOf(minValue, v)n }n return minValue\n}n/n/**n * Returns
the smallest value among all values produced by [selector] functionn * applied to each element in the array or `null`
if there are no elements.n * n * If any of values produced by [selector] function is `NaN`, the returned
result is `NaN`.n
*\/n@SinceKotlin("1.4")n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)n@OverloadResolution
ByLambdaReturnTypen@kotlin.internal.InlineOnlynpublic inline fun LongArray.minOrNull(selector: (Long) -
> Double): Double? {n if (isEmpty()) return nulln var minValue = selector(this[0])n for (i in 1..lastIndex) {n
val v = selector(this[i])n minValue = minOf(minValue, v)n }n return minValue\n}n/n/**n * Returns
the smallest value among all values produced by [selector] functionn * applied to each element in the array or `null`
if there are no elements.n * n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.n
*\/n@SinceKotlin("1.4")n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)n@OverloadResolution
ByLambdaReturnTypen@kotlin.internal.InlineOnlynpublic inline fun FloatArray.minOrNull(selector: (Float) ->
Double): Double? {n if (isEmpty()) return nulln

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    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        minValue =
minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of
values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.minOfOrNull(selector:
(Double) -> Double): Double? {\n    if (isEmpty()) return null\n    var minValue = selector(this[0])\n    for (i in
1..lastIndex) {\n        val v = selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the
array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the
returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.minOfOrNull(selector:
(Boolean) -> Double): Double? {\n    if (isEmpty()) return null\n    var minValue = selector(this[0])\n    for (i in
1..lastIndex) {\n        val v = selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function
is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun CharArray.minOfOrNull(selector: (Char) -> Double): Double? {\n    if (isEmpty()) return null\n    var
minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        minValue =
minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of
values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.minOfOrNull(selector:
(T) -> Float): Float? {\n    if (isEmpty()) return null\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex)
{\n        val v = selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the
array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the
returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.minOfOrNull(selector: (Byte) ->
Float): Float? {\n    if (isEmpty()) return null\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n
val v = selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the
smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if
there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun ShortArray.minOfOrNull(selector: (Short) -> Float): Float? {\n    if (isEmpty()) return null\n    var
minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        minValue =
minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of
values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

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ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.minOrNull(selector: (Int) ->
Float): Float? {\n  if (isEmpty()) return null\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex)
{\n    val v = selector(this[i])\n    minValue = minOf(minValue, v)\n  }\n  return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array
or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned
result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.minOrNull(selector: (Long) ->
Float): Float? {\n  if (isEmpty()) return null\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n
val v = selector(this[i])\n    minValue = minOf(minValue, v)\n  }\n  return minValue\n}\n\n/**\n * Returns the
smallest value among all values produced by [selector] function\n * applied to each element in the array or `null`
if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result
is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.minOrNull(selector: (Float) ->
Float): Float? {\n  if (isEmpty()) return null\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n
val v = selector(this[i])\n    minValue = minOf(minValue, v)\n  }\n  return minValue\n}\n\n/**\n * Returns the
smallest value among all values produced by [selector] function\n * applied to each element in the array or `null`
if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result
is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.minOrNull(selector:
(Double) -> Float): Float? {\n  if (isEmpty()) return null\n  var minValue = selector(this[0])\n  for (i in
1..lastIndex) {\n    val v = selector(this[i])\n    minValue = minOf(minValue, v)\n  }\n  return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector]
function is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.minOrNull(selector:
(Boolean) -> Float): Float? {\n  if (isEmpty()) return null\n  var minValue = selector(this[0])\n  for (i in
1..lastIndex) {\n    val v = selector(this[i])\n    minValue = minOf(minValue, v)\n  }\n  return
minValue\n}\n\n/**\n * Returns the smallest value among all values
produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n *
\n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.minOrNull(selector: (Char) ->
Float): Float? {\n  if (isEmpty()) return null\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n
val v = selector(this[i])\n    minValue = minOf(minValue, v)\n  }\n  return minValue\n}\n\n/**\n * Returns the
smallest value among all values produced by [selector] function\n * applied to each element in the array or `null`
if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>>
Array<out T>.minOrNull(selector: (T) -> R): R? {\n  if (isEmpty()) return null\n  var minValue =
selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (minValue > v) {\n
minValue = v\n    }\n  }\n  return minValue\n}\n\n/**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>

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```

ByteArray.minOrNull(selector: (Byte) -> R): R? {\n  if (isEmpty()) return null\n  var minValue =
selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (minValue > v) {\n
minValue = v\n    }\n  }\n  return minValue\n}\n\n/**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
ShortArray.minOrNull(selector: (Short) -> R): R? {\n  if (isEmpty()) return null\n  var minValue =
selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (minValue > v) {\n
minValue = v\n    }\n  }\n  return minValue\n}\n\n/**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
IntArray.minOrNull(selector: (Int) -> R): R? {\n
  if (isEmpty()) return null\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v =
selector(this[i])\n    if (minValue > v) {\n      minValue = v\n    }\n  }\n  return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array
or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
LongArray.minOrNull(selector: (Long) -> R): R? {\n  if (isEmpty()) return null\n  var minValue =
selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (minValue > v) {\n
minValue = v\n    }\n  }\n  return minValue\n}\n\n/**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the
array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
FloatArray.minOrNull(selector: (Float) -> R): R? {\n  if (isEmpty()) return null\n  var minValue =
selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (minValue > v) {\n
minValue = v\n    }\n  }\n  return minValue\n}\n\n/**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
DoubleArray.minOrNull(selector: (Double) -> R): R? {\n  if (isEmpty()) return null\n  var minValue =
selector(this[0])\n
  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (minValue > v) {\n      minValue = v\n    }\n  }\n  return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
BooleanArray.minOrNull(selector: (Boolean) -> R): R? {\n  if (isEmpty()) return null\n  var minValue =
selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (minValue > v) {\n
minValue = v\n    }\n  }\n  return minValue\n}\n\n/**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <R : Comparable<R>> CharArray.minOrNull(selector: (Char) -> R): R? {\n  if (isEmpty()) return
null\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if
(minValue > v) {\n      minValue = v\n    }\n  }\n  return minValue\n}\n\n/**\n * Returns the smallest value

```



according to the provided [comparator] among all values produced by [selector] function applied to each element in the array. @throws NoSuchElementException if the array is empty.

```

*\/n@SinceKotlin("1.4")\/n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\/n@OverloadResolution
ByLambdaReturnType\/n@kotlin.internal.InlineOnly\/npublic inline fun <T, R> Array<out
T>.minOfWith(comparator: Comparator<in R>, selector: (T) -> R): R {\/n if (isEmpty()) throw
NoSuchElementException()\/n
    var minValue = selector(this[0])\/n for (i in 1..lastIndex) {\/n val v = selector(this[i])\/n if
(comparator.compare(minValue, v) > 0) {\/n minValue = v\/n }\/n }\/n return minValue}\/n}\/n**\/n
Returns the smallest value according to the provided [comparator] among all values produced by [selector]
function applied to each element in the array. @throws NoSuchElementException if the array is empty.
*\/n@SinceKotlin("1.4")\/n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\/n@OverloadResolution
ByLambdaReturnType\/n@kotlin.internal.InlineOnly\/npublic inline fun <R> ByteArray.minOfWith(comparator:
Comparator<in R>, selector: (Byte) -> R): R {\/n if (isEmpty()) throw NoSuchElementException()\/n var
minValue = selector(this[0])\/n for (i in 1..lastIndex) {\/n val v = selector(this[i])\/n if
(comparator.compare(minValue, v) > 0) {\/n minValue = v\/n }\/n }\/n return minValue}\/n}\/n**\/n
Returns the smallest value according to the provided [comparator] among all values produced by [selector]
function applied to each element in the array. @throws NoSuchElementException if the array is empty.
*\/n@SinceKotlin("1.4")\/n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\/n@OverloadResolution
ByLambdaReturnType\/n@kotlin.internal.InlineOnly\/npublic inline fun <R> ShortArray.minOfWith(comparator:
Comparator<in R>, selector: (Short) -> R): R {\/n if (isEmpty()) throw NoSuchElementException()\/n var
minValue = selector(this[0])\/n for (i in 1..lastIndex) {\/n val v = selector(this[i])\/n if
(comparator.compare(minValue, v) > 0) {\/n minValue = v\/n }\/n }\/n return minValue}\/n}\/n**\/n
Returns the smallest value according to the provided [comparator] among all values produced by [selector]
function applied to each element in the array. @throws NoSuchElementException if the array is empty.
*\/n@SinceKotlin("1.4")\/n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\/n@OverloadResolution
ByLambdaReturnType\/n@kotlin.internal.InlineOnly\/npublic inline fun <R> IntArray.minOfWith(comparator:
Comparator<in R>, selector: (Int) -> R): R {\/n if (isEmpty()) throw NoSuchElementException()\/n var minValue
= selector(this[0])\/n for (i in 1..lastIndex) {\/n val v = selector(this[i])\/n if (comparator.compare(minValue,
v) > 0) {\/n minValue = v\/n }\/n }\/n return minValue}\/n}\/n**\/n Returns the smallest value
according to the provided [comparator] among all values produced by [selector] function applied to each
element in the array. @throws NoSuchElementException if the array is empty.
*\/n@SinceKotlin("1.4")\/n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\/n@OverloadResolution
ByLambdaReturnType\/n@kotlin.internal.InlineOnly\/npublic inline fun <R> LongArray.minOfWith(comparator:
Comparator<in R>, selector:
(Long) -> R): R {\/n if (isEmpty()) throw NoSuchElementException()\/n var minValue = selector(this[0])\/n for
(i in 1..lastIndex) {\/n val v = selector(this[i])\/n if (comparator.compare(minValue, v) > 0) {\/n
minValue = v\/n }\/n }\/n return minValue}\/n}\/n**\/n Returns the smallest value according to the provided
[comparator] among all values produced by [selector] function applied to each element in the array. @throws
NoSuchElementException if the array is empty.
*\/n@SinceKotlin("1.4")\/n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\/n@OverloadResolution
ByLambdaReturnType\/n@kotlin.internal.InlineOnly\/npublic inline fun <R> FloatArray.minOfWith(comparator:
Comparator<in R>, selector: (Float) -> R): R {\/n if (isEmpty()) throw NoSuchElementException()\/n var
minValue = selector(this[0])\/n for (i in 1..lastIndex) {\/n val v = selector(this[i])\/n if
(comparator.compare(minValue, v) > 0) {\/n
    minValue = v\/n }\/n }\/n return minValue}\/n}\/n**\/n Returns the smallest value according to the
provided [comparator] among all values produced by [selector] function applied to each element in the array. @throws
NoSuchElementException if the array is empty.
*\/n@SinceKotlin("1.4")\/n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\/n@OverloadResolution

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ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> DoubleArray.minOfWith(comparator:
Comparator<in R>, selector: (Double) -> R): R {\n if (isEmpty()) throw NoSuchElementException()\n var
minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if
(comparator.compare(minValue, v) > 0) {\n minValue = v\n }\n }\n return minValue\n}\n\n/**\n *
Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array.\n
* \n * @throws NoSuchElementException if the array is empty.\n
*\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> BooleanArray.minOfWith(comparator:
Comparator<in R>, selector: (Boolean) -> R): R {\n if (isEmpty()) throw NoSuchElementException()\n var
minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if
(comparator.compare(minValue, v) > 0) {\n minValue = v\n }\n }\n return minValue\n}\n\n/**\n *
Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array.\n
* \n * @throws NoSuchElementException if the array is empty.\n
*\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <R> CharArray.minOfWith(comparator: Comparator<in R>, selector: (Char) -> R): R {\n if
(isEmpty()) throw NoSuchElementException()\n var minValue = selector(this[0])\n for (i in 1..lastIndex) {\n
val v = selector(this[i])\n if (comparator.compare(minValue, v) > 0) {\n minValue = v\n }\n }\n
return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all
values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n
*\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Array<out
T>.minOfWithOrNull(comparator: Comparator<in R>, selector: (T) -> R): R? {\n if (isEmpty()) return null\n
var minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if
(comparator.compare(minValue,
v) > 0) {\n minValue = v\n }\n }\n return minValue\n}\n\n/**\n * Returns the smallest value
according to the provided [comparator]\n * among all values produced by [selector] function applied to each
element in the array or `null` if there are no elements.\n
*\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
ByteArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Byte) -> R): R? {\n if (isEmpty()) return
null\n var minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if
(comparator.compare(minValue, v) > 0) {\n minValue = v\n }\n }\n return minValue\n}\n\n/**\n *
Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array or `null`
if there are no elements.\n
*\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
ShortArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Short) -> R): R? {\n if (isEmpty())
return null\n var minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if
(comparator.compare(minValue, v) > 0) {\n minValue = v\n }\n }\n return minValue\n}\n\n/**\n *
Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array or `null` if there are no elements.\n
*\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
IntArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Int)

```

```

-> R): R? {\n  if (isEmpty()) return null\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (comparator.compare(minValue, v) > 0) {\n      minValue = v\n    }\n  }\n  return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> LongArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Long) -> R): R? {\n  if (isEmpty()) return null\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (comparator.compare(minValue, v) > 0) {\n      minValue = v\n    }\n  }\n  return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> FloatArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Float) -> R): R? {\n  if (isEmpty()) return null\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (comparator.compare(minValue, v) > 0) {\n      minValue = v\n    }\n  }\n  return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> DoubleArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Double) -> R): R? {\n  if (isEmpty()) return null\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (comparator.compare(minValue, v) > 0) {\n      minValue = v\n    }\n  }\n  return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> BooleanArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Boolean) -> R): R? {\n  if (isEmpty()) return null\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (comparator.compare(minValue, v) > 0) {\n      minValue = v\n    }\n  }\n  return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Char) -> R): R? {\n  if (isEmpty()) return null\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (comparator.compare(minValue, v) > 0) {\n      minValue = v\n    }\n  }\n  return minValue\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n\n@SinceKotlin("1.4")\npublic fun Array<out Double>.minOrNull(): Double? {\n  if (isEmpty()) return null\n  var min = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    min = minOf(min, e)\n  }\n  return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n\n@SinceKotlin("1.4")\npublic fun Array<out Float>.minOrNull(): Float? {\n  if (isEmpty()) return null\n  var min = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    min = minOf(min, e)\n  }\n  return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n\n@SinceKotlin("1.4")\npublic fun <T : Comparable<T>> Array<out T>.minOrNull(): T? {\n  if (isEmpty()) return null\n  var min = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if (min > e) min = e\n  }\n  return min\n}\n\n/**\n
```

```

* Returns the smallest element or `null` if there are no elements.\n *^@SinceKotlin("1.4")\npublic fun
ByteArray.minOrNull(): Byte? {\n if (isEmpty()) return null\n var min = this[0]\n for (i in 1..lastIndex) {\n
val e = this[i]\n if (min > e) min = e\n }\n return min\n}\n\n/**\n * Returns the smallest element or `null` if
there are no elements.\n *^@SinceKotlin("1.4")\npublic fun ShortArray.minOrNull(): Short? {\n if (isEmpty())
return null\n var min = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (min > e) min = e\n }\n
return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n
*^@SinceKotlin("1.4")\npublic fun IntArray.minOrNull(): Int? {\n if (isEmpty()) return null\n var min =
this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (min > e) min = e\n }\n return min\n}\n\n/**\n
* Returns the smallest element or `null` if there are no
elements.\n *^@SinceKotlin("1.4")\npublic fun LongArray.minOrNull(): Long? {\n if (isEmpty()) return
null\n var min = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (min > e) min = e\n }\n return
min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements is
`NaN` returns `NaN`.\n *^@SinceKotlin("1.4")\npublic fun FloatArray.minOrNull(): Float? {\n if (isEmpty())
return null\n var min = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n min = minOf(min, e)\n }\n
return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements is
`NaN` returns `NaN`.\n *^@SinceKotlin("1.4")\npublic fun DoubleArray.minOrNull(): Double? {\n if
(isEmpty()) return null\n var min = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n min = minOf(min,
e)\n }\n return min\n}\n\n/**\n * Returns
the smallest element or `null` if there are no elements.\n *^@SinceKotlin("1.4")\npublic fun
CharArray.minOrNull(): Char? {\n if (isEmpty()) return null\n var min = this[0]\n for (i in 1..lastIndex) {\n
val e = this[i]\n if (min > e) min = e\n }\n return min\n}\n\n/**\n * Returns the first element having the
smallest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is
empty.\n
*^@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minWithOrThrow")\n@Suppress("CONFLICTING_OVER
LOADS")\npublic fun <T> Array<out T>.minWith(comparator: Comparator<in T>): T {\n if (isEmpty()) throw
NoSuchElementException()\n var min = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if
(comparator.compare(min, e) > 0) min = e\n }\n return min\n}\n\n/**\n * Returns the first element having the
smallest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the
array is empty.\n
*^@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minWithOrThrow")\n@Suppress("CONFLICTING_OVER
LOADS")\npublic fun ByteArray.minWith(comparator: Comparator<in Byte>): Byte {\n if (isEmpty()) throw
NoSuchElementException()\n var min = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if
(comparator.compare(min, e) > 0) min = e\n }\n return min\n}\n\n/**\n * Returns the first element having the
smallest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is
empty.\n
*^@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minWithOrThrow")\n@Suppress("CONFLICTING_OVER
LOADS")\npublic fun ShortArray.minWith(comparator: Comparator<in Short>): Short {\n if (isEmpty()) throw
NoSuchElementException()\n var min = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if
(comparator.compare(min, e) > 0) min = e\n }\n return min\n}\n\n/**\n * Returns the first element having
the smallest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array
is empty.\n
*^@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minWithOrThrow")\n@Suppress("CONFLICTING_OVER
LOADS")\npublic fun IntArray.minWith(comparator: Comparator<in Int>): Int {\n if (isEmpty()) throw
NoSuchElementException()\n var min = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if
(comparator.compare(min, e) > 0) min = e\n }\n return min\n}\n\n/**\n * Returns the first element having the
smallest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is
empty.\n
*^@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minWithOrThrow")\n@Suppress("CONFLICTING_OVER

```

```

LOADS\`)npublic fun LongArray.minWith(comparator: Comparator<in Long>): Long {n if (isEmpty()) throw
NoSuchElementException()n var min = this[0]n for (i in 1..lastIndex) {n val e = this[i]n if
(comparator.compare(min,
e) > 0) min = e\n }n return min\n}n/n/**n * Returns the first element having the smallest value according to
the provided [comparator].n * n * @throws NoSuchElementException if the array is empty.n
*/n@SinceKotlin("1.7")n@kotlin.jvm.JvmName("minWithOrThrow")n@Suppress("CONFLICTING_OVER
LOADS\`)npublic fun FloatArray.minWith(comparator: Comparator<in Float>): Float {n if (isEmpty()) throw
NoSuchElementException()n var min = this[0]n for (i in 1..lastIndex) {n val e = this[i]n if
(comparator.compare(min, e) > 0) min = e\n }n return min\n}n/n/**n * Returns the first element having the
smallest value according to the provided [comparator].n * n * @throws NoSuchElementException if the array is
empty.n
*/n@SinceKotlin("1.7")n@kotlin.jvm.JvmName("minWithOrThrow")n@Suppress("CONFLICTING_OVER
LOADS\`)npublic fun DoubleArray.minWith(comparator: Comparator<in Double>): Double {n if (isEmpty())
throw NoSuchElementException()n
var min = this[0]n for (i in 1..lastIndex) {n val e = this[i]n if (comparator.compare(min, e) > 0) min =
e\n }n return min\n}n/n/**n * Returns the first element having the smallest value according to the provided
[comparator].n * n * @throws NoSuchElementException if the array is empty.n
*/n@SinceKotlin("1.7")n@kotlin.jvm.JvmName("minWithOrThrow")n@Suppress("CONFLICTING_OVER
LOADS\`)npublic fun BooleanArray.minWith(comparator: Comparator<in Boolean>): Boolean {n if
(isEmpty()) throw NoSuchElementException()n var min = this[0]n for (i in 1..lastIndex) {n val e =
this[i]n if (comparator.compare(min, e) > 0) min = e\n }n return min\n}n/n/**n * Returns the first
element having the smallest value according to the provided [comparator].n * n * @throws
NoSuchElementException if the array is empty.n
*/n@SinceKotlin("1.7")n@kotlin.jvm.JvmName("minWithOrThrow")n@Suppress("CONFLICTING_OVER
LOADS\`)npublic
fun CharArray.minWith(comparator: Comparator<in Char>): Char {n if (isEmpty()) throw
NoSuchElementException()n var min = this[0]n for (i in 1..lastIndex) {n val e = this[i]n if
(comparator.compare(min, e) > 0) min = e\n }n return min\n}n/n/**n * Returns the first element having the
smallest value according to the provided [comparator] or `null` if there are no elements.n
*/n@SinceKotlin("1.4")npublic fun <T> Array<out T>.minWithOrNull(comparator: Comparator<in T>): T? {n
if (isEmpty()) return nulln var min = this[0]n for (i in 1..lastIndex) {n val e = this[i]n if
(comparator.compare(min, e) > 0) min = e\n }n return min\n}n/n/**n * Returns the first element having the
smallest value according to the provided [comparator] or `null` if there are no elements.n
*/n@SinceKotlin("1.4")npublic fun ByteArray.minWithOrNull(comparator: Comparator<in Byte>): Byte? {n
if (isEmpty()) return
nulln var min = this[0]n for (i in 1..lastIndex) {n val e = this[i]n if (comparator.compare(min, e) > 0)
min = e\n }n return min\n}n/n/**n * Returns the first element having the smallest value according to the
provided [comparator] or `null` if there are no elements.n */n@SinceKotlin("1.4")npublic fun
ShortArray.minWithOrNull(comparator: Comparator<in Short>): Short? {n if (isEmpty()) return nulln var min
= this[0]n for (i in 1..lastIndex) {n val e = this[i]n if (comparator.compare(min, e) > 0) min = e\n }n
return min\n}n/n/**n * Returns the first element having the smallest value according to the provided [comparator]
or `null` if there are no elements.n */n@SinceKotlin("1.4")npublic fun IntArray.minWithOrNull(comparator:
Comparator<in Int>): Int? {n if (isEmpty()) return nulln var min = this[0]n for (i in 1..lastIndex) {n val
e = this[i]n if (comparator.compare(min, e) > 0) min
= e\n }n return min\n}n/n/**n * Returns the first element having the smallest value according to the provided
[comparator] or `null` if there are no elements.n */n@SinceKotlin("1.4")npublic fun
LongArray.minWithOrNull(comparator: Comparator<in Long>): Long? {n if (isEmpty()) return nulln var min
= this[0]n for (i in 1..lastIndex) {n val e = this[i]n if (comparator.compare(min, e) > 0) min = e\n }n
}n

```

return min\n}\n\n/\*\*\n \* Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n \*\n@SinceKotlin("1.4")\npublic fun FloatArray.minWithOrNull(comparator: Comparator<in Float>): Float? {\n if (isEmpty()) return null\n var min = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (comparator.compare(min, e) > 0) min = e\n }\n return min\n}\n\n/\*\*\n \* Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n \*\n@SinceKotlin("1.4")\npublic fun DoubleArray.minWithOrNull(comparator: Comparator<in Double>): Double? {\n if (isEmpty()) return null\n var min = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (comparator.compare(min, e) > 0) min = e\n }\n return min\n}\n\n/\*\*\n \* Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n \*\n@SinceKotlin("1.4")\npublic fun BooleanArray.minWithOrNull(comparator: Comparator<in Boolean>): Boolean? {\n if (isEmpty()) return null\n var min = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (comparator.compare(min, e) > 0) min = e\n }\n return min\n}\n\n/\*\*\n \* Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n \*\n@SinceKotlin("1.4")\npublic fun CharArray.minWithOrNull(comparator: Comparator<in Char>): Char? {\n if (isEmpty()) return null\n var min = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (comparator.compare(min, e) > 0) min = e\n }\n return min\n}\n\n/\*\*\n \* Returns `true` if the array has no elements.\n \*\n \* @sample samples.collections.Collections.Aggregates.none\n \*\npublic fun <T> Array<out T>.none(): Boolean {\n return isEmpty()\n}\n\n/\*\*\n \* Returns `true` if the array has no elements.\n \*\n \* @sample samples.collections.Collections.Aggregates.none\n \*\npublic fun ByteArray.none(): Boolean {\n return isEmpty()\n}\n\n/\*\*\n \* Returns `true` if the array has no elements.\n \*\n \* @sample samples.collections.Collections.Aggregates.none\n \*\npublic fun ShortArray.none(): Boolean {\n return isEmpty()\n}\n\n/\*\*\n \* Returns `true` if the array has no elements.\n \*\n \* @sample samples.collections.Collections.Aggregates.none\n \*\npublic fun IntArray.none(): Boolean {\n return isEmpty()\n}\n\n/\*\*\n \* Returns `true` if the array has no elements.\n \*\n \* @sample samples.collections.Collections.Aggregates.none\n \*\npublic fun LongArray.none(): Boolean {\n return isEmpty()\n}\n\n/\*\*\n \* Returns `true` if the array has no elements.\n \*\n \* @sample samples.collections.Collections.Aggregates.none\n \*\npublic fun FloatArray.none(): Boolean {\n return isEmpty()\n}\n\n/\*\*\n \* Returns `true` if the array has no elements.\n \*\n \* @sample samples.collections.Collections.Aggregates.none\n \*\npublic fun DoubleArray.none(): Boolean {\n return isEmpty()\n}\n\n/\*\*\n \* Returns `true` if the array has no elements.\n \*\n \* @sample samples.collections.Collections.Aggregates.none\n \*\npublic fun BooleanArray.none(): Boolean {\n return isEmpty()\n}\n\n/\*\*\n \* Returns `true` if the array has no elements.\n \*\n \* @sample samples.collections.Collections.Aggregates.none\n \*\npublic fun CharArray.none(): Boolean {\n return isEmpty()\n}\n\n/\*\*\n \* Returns `true` if no elements match the given [predicate].\n \*\n \* @sample samples.collections.Collections.Aggregates.noneWithPredicate\n \*\npublic inline fun <T> Array<out T>.none(predicate: (T) -> Boolean): Boolean {\n for (element in this) if (predicate(element)) return false\n return true\n}\n\n/\*\*\n \* Returns `true` if no elements match the given [predicate].\n \*\n \* @sample samples.collections.Collections.Aggregates.noneWithPredicate\n \*\npublic inline fun ByteArray.none(predicate: (Byte) -> Boolean): Boolean {\n for (element in this) if (predicate(element)) return false\n return true\n}\n\n/\*\*\n \* Returns `true` if no elements match the given [predicate].\n \*\n \* @sample samples.collections.Collections.Aggregates.noneWithPredicate\n \*\npublic inline fun ShortArray.none(predicate: (Short) -> Boolean): Boolean {\n for (element in this) if (predicate(element)) return false\n return true\n}\n\n/\*\*\n \* Returns `true` if no elements match the given [predicate].\n \*\n \* @sample samples.collections.Collections.Aggregates.noneWithPredicate\n \*\npublic inline fun IntArray.none(predicate: (Int) -> Boolean): Boolean {\n for (element in this) if (predicate(element)) return false\n return true\n}\n\n/\*\*\n \* Returns `true` if no elements match the given [predicate].\n \*\n \* @sample samples.collections.Collections.Aggregates.noneWithPredicate\n \*\npublic inline fun

```

LongArray.none(predicate: (Long) -> Boolean): Boolean {
    for (element in this) if (predicate(element)) return false
    return true
}

Returns `true` if no elements match the given [predicate].

@sample
samples.collections.Collections.Aggregates.noneWithPredicate

public inline fun FloatArray.none(predicate: (Float) -> Boolean): Boolean {
    for (element in this) if (predicate(element)) return false
    return true
}

Returns `true` if no elements match the given [predicate].

@sample
samples.collections.Collections.Aggregates.noneWithPredicate

public inline fun DoubleArray.none(predicate: (Double) -> Boolean): Boolean {
    for (element in this) if (predicate(element)) return false
    return true
}

Returns `true` if no elements match the given [predicate].

@sample
samples.collections.Collections.Aggregates.noneWithPredicate

public inline fun BooleanArray.none(predicate: (Boolean) -> Boolean): Boolean {
    for (element in this) if (predicate(element)) return false
    return true
}

Returns `true` if no elements match the given [predicate].

@sample
samples.collections.Collections.Aggregates.noneWithPredicate

public inline fun CharArray.none(predicate: (Char) -> Boolean): Boolean {
    for (element in this) if (predicate(element)) return false
    return true
}

Performs the given [action] on each element and returns the array itself afterwards.

@SinceKotlin("1.4")
@kotlin.internal.InlineOnly
public inline fun <T> Array<out T>.onEach(action: (T) -> Unit): Array<out T> {
    return apply { for (element in this) action(element) }
}

Performs the given [action] on each element and returns the array itself afterwards.

@SinceKotlin("1.4")
@kotlin.internal.InlineOnly
public inline fun ByteArray.onEach(action: (Byte) -> Unit): ByteArray {
    return apply { for (element in this) action(element) }
}

Performs the given [action] on each element and returns the array itself afterwards.

@SinceKotlin("1.4")
@kotlin.internal.InlineOnly
public inline fun ShortArray.onEach(action: (Short) -> Unit): ShortArray {
    return apply { for (element in this) action(element) }
}

Performs the given [action] on each element and returns the array itself afterwards.

@SinceKotlin("1.4")
@kotlin.internal.InlineOnly
public inline fun IntArray.onEach(action: (Int) -> Unit): IntArray {
    return apply { for (element in this) action(element) }
}

Performs the given [action] on each element and returns the array itself afterwards.

@SinceKotlin("1.4")
@kotlin.internal.InlineOnly
public inline fun LongArray.onEach(action: (Long) -> Unit): LongArray {
    return apply { for (element in this) action(element) }
}

Performs the given [action] on each element and returns the array itself afterwards.

@SinceKotlin("1.4")
@kotlin.internal.InlineOnly
public inline fun FloatArray.onEach(action: (Float) -> Unit): FloatArray {
    return apply { for (element in this) action(element) }
}

Performs the given [action] on each element and returns the array itself afterwards.

@SinceKotlin("1.4")
@kotlin.internal.InlineOnly
public inline fun DoubleArray.onEach(action: (Double) -> Unit): DoubleArray {
    return apply { for (element in this) action(element) }
}

Performs the given [action] on each element and returns the array itself afterwards.

@SinceKotlin("1.4")
@kotlin.internal.InlineOnly
public inline fun BooleanArray.onEach(action: (Boolean) -> Unit): BooleanArray {
    return apply { for (element in this) action(element) }
}

Performs the given [action] on each element and returns the array itself afterwards.

@SinceKotlin("1.4")
@kotlin.internal.InlineOnly
public inline fun CharArray.onEach(action: (Char) -> Unit): CharArray {
    return apply { for (element in this) action(element) }
}

Performs the given [action] on each element, providing sequential index with the element, and returns the array itself afterwards.

@param [action] function that takes the index of an element and the element itself and performs the action on the element.

@SinceKotlin("1.4")
@kotlin.internal.InlineOnly
public inline fun <T> Array<out T>.onEachIndexed(action: (index: Int, T) -> Unit): Array<out T> {
    return apply { forEachIndexed(action) }
}

Performs the given [action] on each element, providing sequential index with the element, and returns the array itself afterwards.

@param [action] function that takes the index of an element and the element itself and performs the action on the element.

@SinceKotlin("1.4")
@kotlin.internal.InlineOnly
public inline fun

```

```

ByteArray.forEachIndexed(action: (index: Int, Byte) -> Unit): ByteArray {
    return apply {
        forEachIndexed(action)
    }
}

/** Performs the given [action] on each element, providing sequential index
with the element, and returns the array itself afterwards.
 * @param [action] function that takes the index of an
element and the element itself and performs the action on the element.
 */
@SinceKotlin("1.4")@kotlin.internal.InlineOnly
public inline fun ShortArray.forEachIndexed(action:
(index: Int, Short) -> Unit): ShortArray {
    return apply {
        forEachIndexed(action)
    }
}

/** Performs the given [action] on each element, providing sequential index
with the element, and returns the array itself
afterwards.
 * @param [action] function
that takes the index of an element and the element itself and performs the action on the element.
 */
@SinceKotlin("1.4")@kotlin.internal.InlineOnly
public inline fun IntArray.forEachIndexed(action: (index:
Int, Int) -> Unit): IntArray {
    return apply {
        forEachIndexed(action)
    }
}

/** Performs the given [action]
on each element, providing sequential index
with the element, and returns the array itself afterwards.
 * @param [action] function that takes the index of an
element and the element itself and performs the action on
the element.
 */
@SinceKotlin("1.4")@kotlin.internal.InlineOnly
public inline fun
LongArray.forEachIndexed(action: (index: Int, Long) -> Unit): LongArray {
    return apply {
        forEachIndexed(action)
    }
}

/** Performs the given [action] on each element, providing sequential index
with the element, and returns the array itself afterwards.
 * @param [action] function that takes the index of an
element and the element
itself and performs the action on the element.
 */
@SinceKotlin("1.4")@kotlin.internal.InlineOnly
public inline fun FloatArray.forEachIndexed(action: (index: Int, Float) -> Unit): FloatArray {
    return apply {
        forEachIndexed(action)
    }
}

/** Performs the given [action] on each element, providing sequential index
with the element, and returns the array itself afterwards.
 * @param [action] function that takes the index of an
element and the element itself and performs the action on the element.
 */
@SinceKotlin("1.4")@kotlin.internal.InlineOnly
public inline fun DoubleArray.forEachIndexed(action:
(index: Int, Double) -> Unit): DoubleArray {
    return apply {
        forEachIndexed(action)
    }
}

/** Performs
the given [action] on each element, providing sequential index
with the element, and returns the array itself
afterwards.
 * @param [action] function that takes the index of an
element and the element itself and performs
the action on the
element.
 */
@SinceKotlin("1.4")@kotlin.internal.InlineOnly
public inline fun
BooleanArray.forEachIndexed(action: (index: Int, Boolean) -> Unit): BooleanArray {
    return apply {
        forEachIndexed(action)
    }
}

/** Performs the given [action] on each element, providing sequential index
with the element, and returns the array itself afterwards.
 * @param [action] function that takes the index of an
element and the element itself and performs the action on the element.
 */
@SinceKotlin("1.4")@kotlin.internal.InlineOnly
public inline fun CharArray.forEachIndexed(action:
(index: Int, Char) -> Unit): CharArray {
    return apply {
        forEachIndexed(action)
    }
}

/** Accumulates
value starting with the first element and applying [operation] from left to right
 * to current accumulator value and
each element.
 * Throws an exception if this array is empty. If the array can be empty in an expected way,
please use [reduceOrNull] instead. It returns `null`
when its receiver is empty.
 * @param [operation] function that takes current accumulator value and an
element, and calculates the next accumulator value.
 * @sample
samples.collections.Collections.Aggregates.reduce
 */
@SinceKotlin("1.4")@kotlin.internal.InlineOnly
public inline fun <S, T : S> Array<out
T>.reduce(operation: (acc: S, T) -> S): S {
    if (isEmpty())
        throw UnsupportedOperationException("Empty
array can't be reduced.")
    var accumulator: S = this[0]
    for (index in 1..lastIndex) {
        accumulator =
operation(accumulator, this[index])
    }
    return accumulator
}

/** Accumulates value starting with the
first element and applying [operation] from left to right
 * to current accumulator value and each element.
 * Throws an exception if this array is empty. If the array can be empty in an expected way,
please use
[reduceOrNull] instead. It returns `null` when its receiver is empty.
 * @param [operation] function that takes
current accumulator value
 */

```



and an element, and calculates the next accumulator value.

```

samples.collections.Collections.Aggregates.reduce
*/npublic inline fun ByteArray.reduce(operation: (acc: Byte, Byte) -> Byte): Byte {
    if (isEmpty()) throw UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = this[0]
    for (index in 1..lastIndex) {
        accumulator = operation(accumulator, this[index])
    }
    return accumulator
}

```

Accumulates value starting with the first element and applying [operation] from left to right to current accumulator value and each element. Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceOrNull] instead. It returns `null` when its receiver is empty.

@param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.

@sample samples.collections.Collections.Aggregates.reduce

```

*/npublic inline fun ShortArray.reduce(operation: (acc: Short, Short) -> Short): Short {
    if (isEmpty()) throw UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = this[0]
    for (index in 1..lastIndex) {
        accumulator = operation(accumulator, this[index])
    }
    return accumulator
}

```

Accumulates value starting with the first element and applying [operation] from left to right to current accumulator value and each element. Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceOrNull] instead. It returns `null` when its receiver is empty.

@param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.

@sample samples.collections.Collections.Aggregates.reduce

```

*/npublic inline fun IntArray.reduce(operation: (acc: Int, Int) -> Int): Int {
    if (isEmpty()) throw UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = this[0]
    for (index in 1..lastIndex) {
        accumulator = operation(accumulator, this[index])
    }
    return accumulator
}

```

Accumulates value starting with the first element and applying [operation] from left to right to current accumulator value and each element. Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceOrNull] instead. It returns `null` when its receiver is empty.

@param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.

@sample samples.collections.Collections.Aggregates.reduce

```

*/npublic inline fun LongArray.reduce(operation: (acc: Long, Long) -> Long): Long {
    if (isEmpty()) throw UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = this[0]
    for (index in 1..lastIndex) {
        accumulator = operation(accumulator, this[index])
    }
    return accumulator
}

```

Accumulates value starting with the first element and applying [operation] from left to right to current accumulator value and each element. Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceOrNull] instead. It returns `null` when its receiver is empty.

@param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.

@sample samples.collections.Collections.Aggregates.reduce

```

*/npublic inline fun FloatArray.reduce(operation: (acc: Float, Float) -> Float): Float {
    if (isEmpty()) throw UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = this[0]
    for (index in 1..lastIndex) {
        accumulator = operation(accumulator, this[index])
    }
    return accumulator
}

```

Accumulates value starting with the first element and applying [operation] from left to right to current accumulator value and each element. Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceOrNull] instead. It returns `null` when its receiver is empty.

@param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.

@sample samples.collections.Collections.Aggregates.reduce

```

*/npublic inline fun DoubleArray.reduce(operation: (acc: Double, Double) -> Double): Double {
    if (isEmpty()) throw UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = this[0]
    for (index in 1..lastIndex) {
        accumulator = operation(accumulator, this[index])
    }
    return accumulator
}

```

Accumulates value starting with the first element and applying [operation] from left to right to current accumulator value and each element. Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceOrNull] instead.

It returns `null` when its receiver is empty.

```

    * @param [operation] function that takes current accumulator
    value and an element,
    * and calculates the next accumulator value.
    * @sample
    samples.collections.Collections.Aggregates.reduce
    * \npublic inline fun BooleanArray.reduce(operation: (acc:
    Boolean, Boolean) -> Boolean): Boolean {
    * \n    if (isEmpty())
    * \n        throw UnsupportedOperationException("Empty
    array can't be reduced.")
    * \n    var accumulator = this[0]
    * \n    for (index in 1..lastIndex) {
    * \n        accumulator =
    * \n        operation(accumulator, this[index])
    * \n    }
    * \n    return accumulator
    * \n}
    * \n/**
    * Accumulates value starting with the
    first element and applying [operation] from left to right
    * to current accumulator value and each element.
    * \n
    * \n * Throws an exception if this array is empty. If the array can
    be empty in an expected way,
    * please use [reduceOrNull] instead. It returns `null` when its receiver is
    empty.
    * @param [operation] function that takes current accumulator
    value and an element,
    * and calculates the next accumulator value.
    * @sample
    samples.collections.Collections.Aggregates.reduce
    * \npublic inline fun CharArray.reduce(operation: (acc: Char,
    Char) -> Char): Char {
    * \n    if (isEmpty())
    * \n        throw UnsupportedOperationException("Empty
    array can't be
    reduced.")
    * \n    var accumulator = this[0]
    * \n    for (index in 1..lastIndex) {
    * \n        accumulator =
    * \n        operation(accumulator, this[index])
    * \n    }
    * \n    return accumulator
    * \n}
    * \n/**
    * Accumulates value starting with the
    first element and applying [operation] from left to right
    * to current accumulator value and each element with its
    index in the original array.
    * \n
    * \n * Throws an exception if this array is empty. If the array can
    be empty in an expected way,
    * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is
    empty.
    * @param [operation] function that takes the index of an element, current accumulator
    value and the
    element itself,
    * and calculates the next accumulator value.
    * @sample
    samples.collections.Collections.Aggregates.reduce
    * \npublic inline fun <S, T : S> Array<out
    T>.reduceIndexed(operation: (index: Int, acc: S, T) -> S): S {
    * \n    if (isEmpty())
    * \n        throw
    * \n        UnsupportedOperationException("Empty array can't be reduced.")
    * \n    var accumulator: S = this[0]
    * \n    for (index
    * \n    in 1..lastIndex) {
    * \n        accumulator = operation(index, accumulator, this[index])
    * \n    }
    * \n    return
    * \n    accumulator
    * \n}
    * \n/**
    * Accumulates value starting with the first element and applying [operation] from left to
    right
    * to current accumulator value and each element with its index in the original array.
    * \n
    * \n * Throws an
    exception if this array is empty. If the array can be
    empty in an expected way,
    * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is
    empty.
    * @param [operation] function that takes the index of an element, current accumulator
    value and the
    element itself,
    * and calculates the next accumulator value.
    * @sample
    samples.collections.Collections.Aggregates.reduce
    * \npublic inline fun ByteArray.reduceIndexed(operation:
    (index: Int, acc: Byte, Byte) -> Byte): Byte {
    * \n    if (isEmpty())
    * \n        throw
    * \n        UnsupportedOperationException("Empty array can't be reduced.")
    * \n    var accumulator = this[0]
    * \n    for (index in
    * \n    1..lastIndex) {
    * \n        accumulator = operation(index, accumulator, this[index])
    * \n    }
    * \n    return
    * \n    accumulator
    * \n}
    * \n/**
    * Accumulates value starting with the first element and applying [operation] from left to
    right
    * to current accumulator value and each element with its index in the original array.
    * \n
    * \n * Throws an
    exception if this array is empty. If the array can be empty
    in an expected way,
    * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is
    empty.
    * @param [operation] function that takes the index of an element, current accumulator
    value and the element
    itself,
    * and calculates the next accumulator value.
    * @sample
    samples.collections.Collections.Aggregates.reduce
    * \npublic inline fun ShortArray.reduceIndexed(operation:
    (index: Int, acc: Short, Short) -> Short): Short {
    * \n    if (isEmpty())
    * \n        throw
    * \n        UnsupportedOperationException("Empty array can't be reduced.")
    * \n    var accumulator = this[0]
    * \n    for (index in
    * \n    1..lastIndex) {
    * \n        accumulator = operation(index, accumulator, this[index])
    * \n    }
    * \n    return
    * \n    accumulator
    * \n}
    * \n/**
    * Accumulates value starting with the first element and applying [operation] from left to
    right
    * to current accumulator value and each element with its index in the original array.
    * \n
    * \n * Throws an
    exception if this array is empty. If the array can be empty in
    an expected way,
    * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is
    empty.
    * @param [operation] function that takes the index of an element, current accumulator
    value and the element itself,
    *

```

```

* and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n
*\npublic inline fun IntArray.reduceIndexed(operation: (index: Int, acc: Int, Int) -> Int): Int {\n  if (isEmpty())\n    throw UnsupportedOperationException("Empty array can't be reduced.")\n  var accumulator = this[0]\n  for (index in 1..lastIndex) {\n    accumulator = operation(index, accumulator, this[index])\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n
*\npublic inline fun LongArray.reduceIndexed(operation: (index: Int, acc: Long, Long) -> Long): Long {\n  if (isEmpty())\n    throw UnsupportedOperationException("Empty array can't be reduced.")\n  var accumulator = this[0]\n  for (index in 1..lastIndex) {\n    accumulator = operation(index, accumulator, this[index])\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n
*\npublic inline fun FloatArray.reduceIndexed(operation: (index: Int, acc: Float, Float) -> Float): Float {\n  if (isEmpty())\n    throw UnsupportedOperationException("Empty array can't be reduced.")\n  var accumulator = this[0]\n  for (index in 1..lastIndex) {\n    accumulator = operation(index, accumulator, this[index])\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n
*\npublic inline fun DoubleArray.reduceIndexed(operation: (index: Int, acc: Double, Double) -> Double): Double {\n  if (isEmpty())\n    throw UnsupportedOperationException("Empty array can't be reduced.")\n  var accumulator = this[0]\n  for (index in 1..lastIndex) {\n    accumulator = operation(index, accumulator, this[index])\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n
*\npublic inline fun BooleanArray.reduceIndexed(operation: (index: Int, acc: Boolean, Boolean) -> Boolean): Boolean {\n  if (isEmpty())\n    throw UnsupportedOperationException("Empty array can't be reduced.")\n  var accumulator = this[0]\n  for (index in 1..lastIndex) {\n    accumulator = operation(index, accumulator, this[index])\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n
*\npublic inline fun CharArray.reduceIndexed(operation: (index: Int, acc: Char, Char) -> Char): Char {\n  if (isEmpty())\n    throw UnsupportedOperationException("Empty array can't be reduced.")\n  var accumulator =

```

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this[0]\n for (index in 1..lastIndex) {\n     accumulator = operation(index, accumulator, this[index])\n } \n
return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from
left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns
`null` if the array is empty.\n * \n * @param [operation] function that takes the
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value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n
*\n@SinceKotlin("1.4")\npublic inline fun <S, T : S> Array<out T>.reduceIndexedOrNull(operation: (index: Int,
acc: S, T) -> S): S? {\n if (isEmpty())\n     return null\n var accumulator: S = this[0]\n for (index in
1..lastIndex) {\n     accumulator = operation(index, accumulator, this[index])\n } \n return
accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to
right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns `null` if
the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator
value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceOrNull\n
*\n@SinceKotlin("1.4")\npublic inline fun ByteArray.reduceIndexedOrNull(operation: (index: Int, acc: Byte,
Byte) -> Byte): Byte? {\n if (isEmpty())\n     return null\n var accumulator = this[0]\n for (index in
1..lastIndex) {\n     accumulator = operation(index, accumulator, this[index])\n } \n return
accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to
right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns `null` if
the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator
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*\n@SinceKotlin("1.4")\npublic inline fun ShortArray.reduceIndexedOrNull(operation: (index: Int, acc: Short, Short) -> Short): Short? {\n if (isEmpty())\n
return null\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n     accumulator = operation(index,
accumulator, this[index])\n } \n return accumulator\n}\n\n/**\n * Accumulates value starting with the first
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in the original array.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes the
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*\n@SinceKotlin("1.4")\npublic inline fun IntArray.reduceIndexedOrNull(operation: (index: Int, acc: Int, Int) ->
Int): Int? {\n if (isEmpty())\n     return null\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n
accumulator = operation(index, accumulator, this[index])\n } \n return
accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to
right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns `null` if
the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator
value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceOrNull\n
*\n@SinceKotlin("1.4")\npublic inline fun LongArray.reduceIndexedOrNull(operation: (index: Int, acc: Long, Long) -> Long): Long? {\n if (isEmpty())\n
return null\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n     accumulator = operation(index,
accumulator, this[index])\n } \n return accumulator\n}\n\n/**\n * Accumulates value starting with the first
element and applying [operation] from left to right\n * to current accumulator value and each element with
its index in the original array.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that
takes the index of an element, current accumulator value and the element itself,\n * and calculates the next
accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n
*\n@SinceKotlin("1.4")\npublic inline fun FloatArray.reduceIndexedOrNull(operation: (index: Int, acc: Float,
Float) -> Float): Float? {\n if (isEmpty())\n     return null\n var accumulator = this[0]\n for (index in
1..lastIndex) {\n     accumulator = operation(index, accumulator, this[index])\n } \n return
accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to

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right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns `null` if
the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator
value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceOrNull\n *^\n@SinceKotlin("1.4")\npublic inline fun
DoubleArray.reduceIndexedOrNull(operation: (index: Int, acc: Double, Double) -> Double): Double? {\n if
(isEmpty())\n return null\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator =
operation(index, accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting
with the first element and applying [operation] from left to right\n * to current accumulator value and each element
with its index in the original array.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation]
function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the
next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n
*^\n@SinceKotlin("1.4")\npublic
inline fun BooleanArray.reduceIndexedOrNull(operation: (index: Int, acc: Boolean, Boolean) -> Boolean):
Boolean? {\n if (isEmpty())\n return null\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n
accumulator = operation(index, accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates
value starting with the first element and applying [operation] from left to right\n * to current accumulator value and
each element with its index in the original array.\n * \n * Returns `null` if the array is empty.\n * \n * @param
[operation] function that takes the index of an element, current accumulator value and the element itself,\n * and
calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n
*^\n@SinceKotlin("1.4")\npublic inline fun CharArray.reduceIndexedOrNull(operation: (index: Int, acc: Char,
Char) -> Char): Char? {\n if (isEmpty())\n return null\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n
accumulator = operation(index, accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the first
element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n *
Returns `null` if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and
an element,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceOrNull\n
*^\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <S, T : S>
Array<out T>.reduceOrNull(operation: (acc: S, T) -> S): S? {\n if (isEmpty())\n return null\n var
accumulator: S = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(accumulator, this[index])\n
}\n return accumulator\n}\n\n/**\n * Accumulates value starting with
the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n *
\n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes current accumulator value
and an element,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceOrNull\n
*^\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun
ByteArray.reduceOrNull(operation: (acc: Byte, Byte) -> Byte): Byte? {\n if (isEmpty())\n return null\n var
accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(accumulator, this[index])\n
}\n return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation]
from left to right\n * to current accumulator value and each element.\n * \n * Returns `null` if the array is empty.\n *
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value and an element,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceOrNull\n
*^\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun
ShortArray.reduceOrNull(operation: (acc: Short, Short) -> Short): Short? {\n if (isEmpty())\n return null\n
var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(accumulator, this[index])\n
}\n return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation]
from left to right\n * to current accumulator value and each element.\n * \n * Returns `null` if the array is empty.\n *

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\n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun IntArray.reduceOrNull(operation: (acc: Int, Int) -> Int): Int? {\n if (isEmpty())\n return null\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun LongArray.reduceOrNull(operation: (acc: Long, Long) -> Long): Long? {\n if (isEmpty())\n return null\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun FloatArray.reduceOrNull(operation: (acc: Float, Float) -> Float): Float? {\n if (isEmpty())\n return null\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun DoubleArray.reduceOrNull(operation: (acc: Double, Double) -> Double): Double? {\n if (isEmpty())\n return null\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun BooleanArray.reduceOrNull(operation: (acc: Boolean, Boolean) -> Boolean): Boolean? {\n if (isEmpty())\n return null\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun CharArray.reduceOrNull(operation: (acc: Char, Char) -> Char): Char? {\n if (isEmpty())\n return null\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function

```

that takes an element and current accumulator value, and calculates the next accumulator value.

```

@sample samples.collections.Collections.Aggregates.reduceRight
public inline fun <S, T : S> Array<out T>.reduceRight(operation: (T, acc: S) -> S): S {
    var index = lastIndex
    if (index < 0) throw
    UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator:
    S = get(index--)
    while (index >= 0) {
        accumulator = operation(get(index--), accumulator)
    }
    return accumulator
}

```

Accumulates value starting with the last element and applying [operation] from right to left to each element and current accumulator value. Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty.

@param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.

@sample

```

samples.collections.Collections.Aggregates.reduceRight
public inline fun ByteArray.reduceRight(operation:
(Byte, acc: Byte) -> Byte): Byte {
    var index = lastIndex
    if (index < 0) throw
    UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = get(index--)
    while
(index >= 0) {
        accumulator = operation(get(index--),
accumulator)
    }
    return accumulator
}

```

Accumulates value starting with the last element and applying [operation] from right to left to each element and current accumulator value. Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty.

@param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.

@sample

```

samples.collections.Collections.Aggregates.reduceRight
public inline fun ShortArray.reduceRight(operation:
(Short, acc: Short) -> Short): Short {
    var index = lastIndex
    if (index < 0) throw
    UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = get(index--)
    while
(index >= 0) {
        accumulator = operation(get(index--), accumulator)
    }
    return accumulator
}

```

Accumulates value starting with the last element and applying [operation] from right to left to each element and current accumulator value. Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty.

@param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.

@sample

```

samples.collections.Collections.Aggregates.reduceRight
public inline fun IntArray.reduceRight(operation: (Int, acc: Int) -> Int): Int {
    var index = lastIndex
    if (index < 0) throw
    UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = get(index--)
    while
(index >= 0) {
        accumulator = operation(get(index--), accumulator)
    }
    return accumulator
}

```

Accumulates value starting with the last element and applying [operation] from right to left to each element and current accumulator value. Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty.

@param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.

@sample

```

samples.collections.Collections.Aggregates.reduceRight
public inline fun LongArray.reduceRight(operation: (Long, acc: Long) -> Long): Long {
    var index = lastIndex
    if
(index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator =
get(index--)
    while (index >= 0) {
        accumulator = operation(get(index--), accumulator)
    }
    return
accumulator
}

```

Accumulates value starting with the last element and applying [operation] from right to left to each element and current accumulator value. Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty.

@param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.

@sample

```

samples.collections.Collections.Aggregates.reduceRight
public inline fun FloatArray.reduceRight(operation:
(Float, acc: Float) -> Float): Float {
    var index = lastIndex
    if (index < 0) throw
    UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = get(index--)
    while

```

```

(index >= 0) {\n    accumulator = operation(get(index--), accumulator)\n } \n return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Throws an exception if this array is empty. If the array can be empty in an\n * expected way,\n * please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n */\npublic inline fun DoubleArray.reduceRight(operation: (Double, acc: Double) -> Double): Double {\n    var index = lastIndex\n    if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to\n * left\n * to each element and current accumulator value.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n */\npublic inline fun BooleanArray.reduceRight(operation: (Boolean, acc: Boolean) -> Boolean): Boolean {\n    var index = lastIndex\n    if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n */\npublic inline fun CharArray.reduceRight(operation: (Char, acc: Char) -> Char): Char {\n    var index = lastIndex\n    if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n */\npublic inline fun <S, T : S> Array<out T>.reduceRightIndexed(operation: (index: Int, T, acc: S) -> S): S {\n    var index = lastIndex\n    if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator: S = get(index--)\n    while (index >= 0) {\n        accumulator = operation(index, get(index), accumulator)\n        --index\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to\n * left\n * to each element with its index in the original array and current accumulator value.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n */\npublic inline fun ByteArray.reduceRightIndexed(operation: (index: Int, Byte, acc: Byte) -> Byte): Byte {\n    var index = lastIndex\n    if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(index, get(index), accumulator)\n        --index\n    }\n    return accumulator\n}

```



```

    }
    return accumulator
}

/**
 * Accumulates value starting with the last element and applying [operation]
from right to left
 * to each element with its index in the original array and current accumulator value.
 * Throws an exception if this array is empty. If the array can be empty in an expected way,
 * please use
[reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.
 * @param
 [operation] function that takes the index of an element, the element itself and current accumulator value,
 * and calculates the next accumulator value.
 * @sample samples.collections.Collections.Aggregates.reduceRight
*/
public inline fun ShortArray.reduceRightIndexed(operation: (index: Int, Short, acc: Short) -> Short): Short {
    var index = lastIndex
    if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = get(index--)
    while (index >= 0) {
        accumulator = operation(index, get(index), accumulator)
        --index
    }
    return accumulator
}

/**
 * Accumulates value starting with the last
element and applying [operation] from right to left
 * to each element with its index in the original array and
current accumulator value.
 * Throws an exception if this array is empty. If the array can be empty in an
expected way,
 * please use [reduceRightIndexedOrNull] instead. It returns `null`
when its receiver is empty.
 * @param [operation] function that takes the index of an element, the element
itself and current accumulator value,
 * and calculates the next accumulator value.
 * @sample
samples.collections.Collections.Aggregates.reduceRight
*/
public inline fun
IntArray.reduceRightIndexed(operation: (index: Int, Int, acc: Int) -> Int): Int {
    var index = lastIndex
    if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = get(index--)
    while (index >= 0) {
        accumulator = operation(index, get(index), accumulator)
        --index
    }
    return accumulator
}

/**
 * Accumulates value starting with the last element and applying [operation] from right to
left
 * to each element with its index in the original array and current accumulator value.
 * Throws an
exception if this array is empty. If the array can be empty in an expected way,
 * please use
[reduceRightIndexedOrNull]
instead. It returns `null` when its receiver is empty.
 * @param [operation] function that takes the index of an
element, the element itself and current accumulator value,
 * and calculates the next accumulator value.
 * @sample
samples.collections.Collections.Aggregates.reduceRight
*/
public inline fun
LongArray.reduceRightIndexed(operation: (index: Int, Long, acc: Long) -> Long): Long {
    var index =
lastIndex
    if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")
    var
accumulator = get(index--)
    while (index >= 0) {
        accumulator = operation(index, get(index),
accumulator)
        --index
    }
    return accumulator
}

/**
 * Accumulates value starting with the last
element and applying [operation] from right to left
 * to each element with its index in the original array and
current accumulator value.
 * Throws an exception if this array is empty. If the array can be empty in an
expected way,
 * please use [reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.
 * @param
[operation] function that takes the index of an element, the element itself and current accumulator value,
 * and calculates the next accumulator value.
 * @sample samples.collections.Collections.Aggregates.reduceRight
*/
public inline fun FloatArray.reduceRightIndexed(operation: (index: Int, Float, acc: Float) -> Float): Float {
    var index = lastIndex
    if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = get(index--)
    while (index >= 0) {
        accumulator = operation(index, get(index), accumulator)
        --index
    }
    return accumulator
}

/**
 * Accumulates value starting with the last
element and applying [operation] from right to left
 * to each element with its index in the original array and
current accumulator value.
 * Throws an exception if this array is empty. If
the array can be empty in an expected way,
 * please use [reduceRightIndexedOrNull] instead. It returns `null`
when its receiver is empty.
 * @param [operation] function that takes the index of an element, the element
itself and current accumulator value,
 * and calculates the next accumulator value.
 * @sample
samples.collections.Collections.Aggregates.reduceRight
*/
public inline fun
DoubleArray.reduceRightIndexed(operation: (index: Int, Double, acc: Double) -> Double): Double {
    var index =
lastIndex
    if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")
    var

```

```
accumulator = get(index--)\n while (index >= 0) {\n accumulator = operation(index, get(index),\n accumulator)\n --index\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the last\n element and applying [operation] from right to left\n * to each element with its index in the original array and\n current accumulator value.\n * \n *
```

Throws an exception if this array is empty. If the array can be empty in an expected way, please use [reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.

@param [operation] function that takes the index of an element, the element itself and current accumulator value, and calculates the next accumulator value.

@sample samples.collections.Collections.Aggregates.reduceRight

```
public inline fun BooleanArray.reduceRightIndexed(operation: (index: Int, Boolean, acc: Boolean) -> Boolean): Boolean {\n var index = lastIndex\n if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n var accumulator = get(index--)\n while (index >= 0) {\n accumulator = operation(index, get(index), accumulator)\n --index\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample
```

```
samples.collections.Collections.Aggregates.reduceRight\n\npublic inline fun CharArray.reduceRightIndexed(operation: (index: Int, Char, acc: Char) -> Char): Char {\n var index = lastIndex\n if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n var accumulator = get(index--)\n while (index >= 0) {\n accumulator = operation(index, get(index), accumulator)\n --index\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to
```

each element with its index in the original array and current accumulator value.

Returns `null` if the array is empty.

@param [operation] function that takes the index of an element, the element itself and current accumulator value, and calculates the next accumulator value.

@sample

```
samples.collections.Collections.Aggregates.reduceRightOrNull\n\n@SinceKotlin("1.4")\npublic inline fun <S, T : S> Array<out T>.reduceRightIndexedOrNull(operation: (index: Int, T, acc: S) -> S): S? {\n var index = lastIndex\n if (index < 0) return null\n var accumulator: S = get(index--)\n while (index >= 0) {\n accumulator = operation(index, get(index), accumulator)\n --index\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample
```

```
samples.collections.Collections.Aggregates.reduceRightOrNull\n\n@SinceKotlin("1.4")\npublic inline fun ByteArray.reduceRightIndexedOrNull(operation: (index: Int, Byte, acc: Byte) -> Byte): Byte? {\n var index = lastIndex\n if (index < 0) return null\n var accumulator = get(index--)\n while (index >= 0) {\n accumulator = operation(index, get(index), accumulator)\n --index\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself and current accumulator value,\n * and calculates
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```
the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n\n@SinceKotlin("1.4")\npublic inline fun ShortArray.reduceRightIndexedOrNull(operation: (index: Int, Short, acc: Short) -> Short): Short? {\n var index = lastIndex\n if (index < 0) return null\n var accumulator = get(index--)\n while (index >= 0) {\n accumulator = operation(index, get(index), accumulator)\n --index\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * \n *
```

Returns `null` if the array is empty.

```

 * @param [operation] function that takes the index of an element, the
 element itself and current accumulator value,
 * and calculates the next accumulator value.
 * @sample
 samples.collections.Collections.Aggregates.reduceRightOrNull
 *^@SinceKotlin("1.4")\npublic
 inline fun IntArray.reduceRightIndexedOrNull(operation: (index: Int, Int, acc: Int) -> Int): Int? {
 \n var index =
 lastIndex\n if (index < 0) return null\n var accumulator = get(index--)\n while (index >= 0) {\n
 accumulator = operation(index, get(index), accumulator)\n --index\n }\n return accumulator\n}\n/n/**
 * Accumulates value starting with the last element and applying [operation] from right to left
 * to each element with its index in the original array and current accumulator value.
 * Returns `null` if the array is empty.
 * @param [operation] function that takes the index of an element, the element itself and current accumulator value,
 * and calculates the next accumulator value.
 * @sample
 samples.collections.Collections.Aggregates.reduceRightOrNull
 *^@SinceKotlin("1.4")\npublic inline fun
 LongArray.reduceRightIndexedOrNull(operation: (index: Int, Long, acc: Long) -> Long): Long? {
 \n var index =
 lastIndex\n
 if (index < 0) return null\n var accumulator = get(index--)\n while (index >= 0) {\n accumulator =
 operation(index, get(index), accumulator)\n --index\n }\n return accumulator\n}\n/n/**
 * Accumulates value starting with the last element and applying [operation] from right to left
 * to each element with its index in the original array and current accumulator value.
 * Returns `null` if the array is empty.
 * @param [operation] function that takes the index of an element, the element itself and current accumulator value,
 * and calculates the next accumulator value.
 * @sample
 samples.collections.Collections.Aggregates.reduceRightOrNull
 *^@SinceKotlin("1.4")\npublic inline fun
 FloatArray.reduceRightIndexedOrNull(operation: (index: Int, Float, acc: Float) -> Float): Float? {
 \n var index =
 lastIndex\n if (index < 0) return null\n var accumulator = get(index--)\n while (index >= 0) {\n
 accumulator = operation(index,
 get(index), accumulator)\n --index\n }\n return accumulator\n}\n/n/**
 * Accumulates value starting with the last element and applying [operation] from right to left
 * to each element with its index in the original array and current accumulator value.
 * Returns `null` if the array is empty.
 * @param [operation] function that takes the index of an element, the element itself and current accumulator value,
 * and calculates the next accumulator value.
 * @sample
 samples.collections.Collections.Aggregates.reduceRightOrNull
 *^@SinceKotlin("1.4")\npublic inline fun DoubleArray.reduceRightIndexedOrNull(operation: (index: Int,
 Double, acc: Double) -> Double): Double? {
 \n var index = lastIndex\n if (index < 0) return null\n var
 accumulator = get(index--)\n while (index >= 0) {\n accumulator = operation(index, get(index),
 accumulator)\n --index\n }\n return accumulator\n}\n/n/**
 * Accumulates value starting with the last element and applying [operation] from right to left
 * to each element with its index in the original array and current accumulator value.
 * Returns `null` if the array is empty.
 * @param [operation] function that takes the index of an element, the element itself and current accumulator value,
 * and calculates the next accumulator value.
 * @sample
 samples.collections.Collections.Aggregates.reduceRightOrNull
 *^@SinceKotlin("1.4")\npublic inline fun BooleanArray.reduceRightIndexedOrNull(operation: (index: Int,
 Boolean, acc: Boolean) -> Boolean): Boolean? {
 \n var index = lastIndex\n if (index < 0) return null\n var
 accumulator = get(index--)\n while (index >= 0) {\n accumulator = operation(index, get(index),
 accumulator)\n --index\n }\n return accumulator\n}\n/n/**
 * Accumulates value starting with the last element and applying [operation] from right to left
 * to each element with its index in the original array and current accumulator value.
 * Returns `null` if the array is empty.
 * @param [operation] function that takes the index of an element, the element itself and current accumulator value,
 * and calculates the next accumulator value.
 * @sample
 samples.collections.Collections.Aggregates.reduceRightOrNull
 *^@SinceKotlin("1.4")\npublic inline fun CharArray.reduceRightIndexedOrNull(operation: (index: Int, Char,
 acc: Char) -> Char): Char? {
 \n var index = lastIndex\n if (index < 0) return null\n var accumulator = get(index-
-)\n while (index >= 0) {\n accumulator = operation(index, get(index), accumulator)\n --index\n }\n
 return accumulator\n}\n/n/**
 * Accumulates value starting with the last element and applying [operation] from

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right to left\n * to each element and current accumulator value.\n * \n * Returns `null` if the array is empty.\n * \n *
@param [operation] function that takes an element and current accumulator value,\n
* and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceRightOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <S, T : S>
Array<out T>.reduceRightOrNull(operation: (T, acc: S) -> S): S? {\n    var index = lastIndex\n    if (index < 0)
return null\n    var accumulator: S = get(index--)\n    while (index >= 0) {\n        accumulator = operation(get(index--
), accumulator)\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and
applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns `null` if
the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value,\n *
and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceRightOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic
inline fun ByteArray.reduceRightOrNull(operation: (Byte, acc: Byte) -> Byte): Byte? {\n    var index = lastIndex\n
if (index < 0) return null\n    var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator =
operation(get(index--), accumulator)\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the
last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n *
Returns `null` if the array is empty.\n * \n * @param [operation] function that takes an element and current
accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceRightOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun
ShortArray.reduceRightOrNull(operation: (Short, acc: Short) -> Short): Short? {\n    var index = lastIndex\n    if
(index < 0) return null\n    var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator =
operation(get(index--), accumulator)\n    }\n    return
accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to
left\n * to each element and current accumulator value.\n * \n * Returns `null` if the array is empty.\n * \n * @param
[operation] function that takes an element and current accumulator value,\n * and calculates the next accumulator
value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun
IntArray.reduceRightOrNull(operation: (Int, acc: Int) -> Int): Int? {\n    var index = lastIndex\n    if (index < 0)
return null\n    var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(get(index--),
accumulator)\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and
applying [operation]
from right to left\n * to each element and current accumulator value.\n * \n * Returns `null` if the array is empty.\n
*\n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the next
accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun
LongArray.reduceRightOrNull(operation: (Long, acc: Long) -> Long): Long? {\n    var index = lastIndex\n    if
(index < 0) return null\n    var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator =
operation(get(index--), accumulator)\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the
last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n *
Returns `null` if the array is empty.\n * \n * @param [operation] function that takes an element and current
accumulator
value,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceRightOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun
FloatArray.reduceRightOrNull(operation: (Float, acc: Float) -> Float): Float? {\n    var index = lastIndex\n    if
(index < 0) return null\n    var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator =

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operation(get(index--), accumulator)\n } \n return accumulator\n}\n\n/**\n * Accumulates value starting with the
last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n *
Returns `null` if the array is empty.\n * \n * @param [operation] function that takes an element and current
accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceRightOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic
inline fun DoubleArray.reduceRightOrNull(operation: (Double, acc: Double) -> Double): Double? {\n var index
= lastIndex\n if (index < 0) return null\n var accumulator = get(index--)\n while (index >= 0) {\n
accumulator = operation(get(index--), accumulator)\n } \n return accumulator\n}\n\n/**\n * Accumulates value
starting with the last element and applying [operation] from right to left\n * to each element and current accumulator
value.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes an element and
current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceRightOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun
BooleanArray.reduceRightOrNull(operation: (Boolean, acc: Boolean) -> Boolean): Boolean? {\n var index =
lastIndex\n if (index < 0) return null\n
var accumulator = get(index--)\n while (index >= 0) {\n accumulator = operation(get(index--),
accumulator)\n } \n return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and
applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns `null` if
the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value,\n *
and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceRightOrNull\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun
CharArray.reduceRightOrNull(operation: (Char, acc: Char) -> Char): Char? {\n var index = lastIndex\n if (index
< 0) return null\n var accumulator = get(index--)\n while (index >= 0) {\n accumulator =
operation(get(index--), accumulator)\n } \n return accumulator\n}\n\n/**\n * Returns a list containing successive
accumulation values generated by applying [operation] from left to right\n * to each element and current
accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should
not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation]
function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n *
@sample samples.collections.Collections.Aggregates.runningFold\n
*\n@SinceKotlin("1.4")\npublic inline fun
<T, R> Array<out T>.runningFold(initial: R, operation: (acc: R, T) -> R): List<R> {\n if (isEmpty()) return
listOf(initial)\n val result = ArrayList<R>(size + 1).apply { add(initial) }\n var accumulator = initial\n for
(element in this) {\n accumulator = operation(accumulator, element)\n result.add(accumulator)\n } \n
return result\n}\n\n/**\n * Returns a list containing successive accumulation
values generated by applying [operation] from left to right\n * to each element and current accumulator value that
starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n *
otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current
accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.runningFold\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R> ByteArray.runningFold(initial: R,
operation: (acc: R, Byte) -> R): List<R> {\n if (isEmpty()) return listOf(initial)\n val result = ArrayList<R>(size
+ 1).apply { add(initial) }\n var accumulator = initial\n for (element in this) {\n accumulator =
operation(accumulator, element)\n result.add(accumulator)\n } \n return result\n}\n\n/**\n * Returns a list
containing successive accumulation
values generated by applying [operation] from left to right\n * to each element and current accumulator value that
starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n *
otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current

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accumulator value and an element, and calculates the next accumulator value.\n \* \n \* @sample samples.collections.Collections.Aggregates.runningFold\n

```
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R> ShortArray.runningFold(initial: R, operation: (acc: R, Short) -> R): List<R> {\n    if (isEmpty()) return listOf(initial)\n    val result = ArrayList<R>(size + 1).apply { add(initial) }\n    var accumulator = initial\n    for (element in this) {\n        accumulator = operation(accumulator, element)\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n
```

```
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R> IntArray.runningFold(initial: R, operation: (acc: R, Int) -> R): List<R> {\n    if (isEmpty()) return listOf(initial)\n    val result = ArrayList<R>(size + 1).apply { add(initial) }\n    var accumulator = initial\n    for (element in this) {\n        accumulator = operation(accumulator, element)\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n
```

```
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R> LongArray.runningFold(initial: R, operation: (acc: R, Long) -> R): List<R> {\n    if (isEmpty()) return listOf(initial)\n    val result = ArrayList<R>(size + 1).apply { add(initial) }\n    var accumulator = initial\n    for (element in this) {\n        accumulator = operation(accumulator, element)\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n
```

```
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R> FloatArray.runningFold(initial: R, operation: (acc: R, Float) -> R): List<R> {\n    if (isEmpty()) return listOf(initial)\n    val result = ArrayList<R>(size + 1).apply { add(initial) }\n    var accumulator = initial\n    for (element in this) {\n        accumulator = operation(accumulator, element)\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n
```

```
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R> DoubleArray.runningFold(initial: R, operation: (acc: R, Double) -> R): List<R> {\n    if (isEmpty()) return listOf(initial)\n    val result = ArrayList<R>(size + 1).apply { add(initial) }\n    var accumulator = initial\n    for (element in this) {\n        accumulator = operation(accumulator, element)\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing
```

successive accumulation values generated by applying [operation] from left to right to each element and current accumulator value that starts with [initial] value. Note that `acc` value passed to [operation] function should not be mutated; otherwise it would affect the previous value in resulting list. @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value. @sample samples.collections.Collections.Aggregates.runningFold

```
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R> BooleanArray.runningFold(initial: R, operation: (acc: R, Boolean) -> R): List<R> {\n    if (isEmpty()) return listOf(initial)\n    val result = ArrayList<R>(size + 1).apply { add(initial) }\n    var accumulator = initial\n    for (element in this) {\n        accumulator = operation(accumulator, element)\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a
```

list containing successive accumulation values generated by applying [operation] from left to right to each element and current accumulator value that starts with [initial] value. Note that `acc` value passed to [operation] function should not be mutated; otherwise it would affect the previous value in resulting list. @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value. @sample samples.collections.Collections.Aggregates.runningFold

```
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharArray.runningFold(initial: R, operation: (acc: R, Char) -> R): List<R> {\n    if (isEmpty()) return listOf(initial)\n    val result = ArrayList<R>(size + 1).apply { add(initial) }\n    var accumulator = initial\n    for (element in this) {\n        accumulator = operation(accumulator, element)\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns
```

a list containing successive accumulation values generated by applying [operation] from left to right to each element, its index in the original array and current accumulator value that starts with [initial] value. Note that `acc` value passed to [operation] function should not be mutated; otherwise it would affect the previous value in resulting list. @param [operation] function that takes the index of an element, current accumulator value and the element itself, and calculates the next accumulator value. @sample

```
samples.collections.Collections.Aggregates.runningFold\n*\n@SinceKotlin("1.4")\npublic inline fun <T, R> Array<out T>.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): List<R> {\n    if (isEmpty()) return listOf(initial)\n    val result = ArrayList<R>(size + 1).apply { add(initial) }\n    var accumulator = initial\n    for (index in indices) {\n        accumulator = operation(index, accumulator, this[index])\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation
```

values generated by applying [operation] from left to right to each element, its index in the original array and current accumulator value that starts with [initial] value. Note that `acc` value passed to [operation] function should not be mutated; otherwise it would affect the previous value in resulting list. @param [operation] function that takes the index of an element, current accumulator value and the element itself, and calculates the next accumulator value. @sample samples.collections.Collections.Aggregates.runningFold

```
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R> ByteArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Byte) -> R): List<R> {\n    if (isEmpty()) return listOf(initial)\n    val result = ArrayList<R>(size + 1).apply { add(initial) }\n    var accumulator = initial\n    for (index in indices) {\n        accumulator = operation(index, accumulator, this[index])\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation
```

values generated by applying [operation] from left to right to each element, its index in the original array and current accumulator value that starts with [initial] value. Note that `acc` value passed to [operation] function should not be mutated; otherwise it would affect the previous value in resulting list. @param [operation] function that takes the index of an element, current accumulator value and the element itself, and calculates the next accumulator value. @sample samples.collections.Collections.Aggregates.runningFold

```
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R> ShortArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Short) -> R): List<R> {\n    if (isEmpty()) return
```

```

listOf(initial)\n    val result = ArrayList<R>(size + 1).apply { add(initial) }\n    var accumulator = initial\n    for
(index in indices) {\n        accumulator = operation(index, accumulator, this[index])\n        result.add(accumulator)\n
    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying
[operation] from left to right\n * to each element, its index in the original array and current accumulator value that
starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n *
otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the
index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator
value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n
*/\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R>

```

```

IntArray.runningFoldIndexed(initial:

```

```

R, operation: (index: Int, acc: R, Int) -> R): List<R> {\n    if (isEmpty()) return listOf(initial)\n    val result =
ArrayList<R>(size + 1).apply { add(initial) }\n    var accumulator = initial\n    for (index in indices) {\n
accumulator = operation(index, accumulator, this[index])\n        result.add(accumulator)\n    }\n    return
result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from
left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial]
value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would
affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element,
current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.runningFold\n
*/\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R>

```

```

LongArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Long) -> R): List<R> {\n    if (isEmpty())
return listOf(initial)\n    val result = ArrayList<R>(size + 1).apply { add(initial) }\n    var accumulator = initial\n
for (index in indices) {\n        accumulator = operation(index, accumulator, this[index])\n        result.add(accumulator)\n
    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation
values generated by applying [operation] from left to right\n * to each element, its index in the original array and
current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function
should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation]
function that takes the index of an element, current accumulator value\n * and the element itself,
and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.runningFold\n
*/\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R>

```

```

FloatArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Float) -> R): List<R> {\n    if (isEmpty())
return listOf(initial)\n    val result = ArrayList<R>(size + 1).apply { add(initial) }\n    var accumulator = initial\n
for (index in indices) {\n        accumulator = operation(index, accumulator, this[index])\n        result.add(accumulator)\n
    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation
values generated by applying [operation] from left to right\n * to each element, its index in the original array and
current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function
should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation]
function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the
next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n
*/\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <R>

```

```

DoubleArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Double) -> R): List<R> {\n    if
(isEmpty()) return listOf(initial)\n    val result = ArrayList<R>(size + 1).apply { add(initial) }\n    var accumulator =
initial\n    for (index in indices) {\n        accumulator = operation(index, accumulator, this[index])\n        result.add(accumulator)\n
    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation
values generated by applying [operation] from left to right\n * to each element, its index in the original array and
current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function
should

```





and current accumulator value that starts with the first element of this array.\n \* \n \* @param [operation] function that takes current accumulator

value and an element, and calculates the next accumulator value.\n \* \n \* @sample samples.collections.Collections.Aggregates.runningReduce\n

```
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.runningReduce(operation: (acc: Int, Int) -> Int): List<Int> {\n    if (isEmpty()) return emptyList()\n    var accumulator = this[0]\n    val result = ArrayList<Int>(size).apply { add(accumulator) }\n    for (index in 1 until size) {\n        accumulator = operation(accumulator, this[index])\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n
```

```
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.runningReduce(operation: (acc: Long, Long) -> Long): List<Long> {\n    if (isEmpty()) return emptyList()\n    var accumulator = this[0]\n    val result = ArrayList<Long>(size).apply { add(accumulator) }\n    for (index in 1 until size) {\n        accumulator = operation(accumulator, this[index])\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n
```

```
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.runningReduce(operation: (acc: Float, Float) -> Float): List<Float> {\n    if (isEmpty()) return emptyList()\n    var accumulator = this[0]\n    val result = ArrayList<Float>(size).apply { add(accumulator) }\n    for (index in 1 until size) {\n        accumulator = operation(accumulator, this[index])\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n
```

```
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.runningReduce(operation: (acc: Double, Double) -> Double): List<Double> {\n    if (isEmpty()) return emptyList()\n    var accumulator = this[0]\n    val result = ArrayList<Double>(size).apply { add(accumulator) }\n    for (index in 1 until size) {\n        accumulator = operation(accumulator, this[index])\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n
```

```
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.runningReduce(operation: (acc: Boolean, Boolean) -> Boolean): List<Boolean> {\n    if (isEmpty()) return emptyList()\n    var accumulator = this[0]\n    val result = ArrayList<Boolean>(size).apply { add(accumulator) }\n    for (index in 1 until size) {\n        accumulator = operation(accumulator, this[index])\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n
```

```
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.runningReduce(operation:
```

```

(acc: Char, Char) -> Char): List<Char> {
    if (isEmpty()) return emptyList()
    var accumulator = this[0]
    val result = ArrayList<Char>(size).apply { add(accumulator) }
    for (index in 1 until size) {
        accumulator = operation(accumulator, this[index])
        result.add(accumulator)
    }
    return result
}

Returns a list containing successive accumulation values generated by applying [operation] from left to right to each element, its index in the original array and current accumulator value that starts with the first element of this array.

Note that `acc` value passed to [operation] function should not be mutated; otherwise it would affect the previous value in resulting list.

@param [operation] function that takes the index of an element, current accumulator value and the element itself, and calculates the next accumulator value.

@sample
samples.collections.Collections.Aggregates.runningReduce

Since Kotlin("1.4")
public inline fun <S, T : S> Array<out T>.runningReduceIndexed(operation: (index: Int, acc: S, T) -> S): List<S> {
    if (isEmpty()) return emptyList()
    var accumulator: S = this[0]
    val result = ArrayList<S>(size).apply { add(accumulator) }
    for (index in 1 until size) {
        accumulator = operation(index, accumulator, this[index])
        result.add(accumulator)
    }
    return result
}

Returns a list containing successive accumulation values generated by applying [operation] from left to right to each element, its index in the original array and current accumulator value that starts with the first element of this array.

@param [operation] function that takes the index of an element, current accumulator value and the element itself, and calculates the next accumulator value.

@sample
samples.collections.Collections.Aggregates.runningReduce

Since Kotlin("1.4")
@kotlin.internal.InlineOnly
public inline fun
ByteArray.runningReduceIndexed(operation: (index: Int, acc: Byte, Byte) -> Byte): List<Byte> {
    if (isEmpty()) return emptyList()
    var accumulator = this[0]
    val result = ArrayList<Byte>(size).apply { add(accumulator) }
    for (index in 1 until size) {
        accumulator = operation(index, accumulator, this[index])
        result.add(accumulator)
    }
    return result
}

Returns a list containing successive accumulation values generated by applying [operation] from left to right to each element, its index in the original array and current accumulator value that starts with the first element of this array.

@param [operation] function that takes the index of an element, current accumulator value and the element itself, and calculates the next accumulator value.

@sample
samples.collections.Collections.Aggregates.runningReduce

Since Kotlin("1.4")
@kotlin.internal.InlineOnly
public inline fun
ShortArray.runningReduceIndexed(operation: (index: Int, acc: Short, Short) -> Short): List<Short> {
    if (isEmpty()) return emptyList()
    var accumulator = this[0]
    val result = ArrayList<Short>(size).apply { add(accumulator) }
    for (index in 1 until size) {
        accumulator = operation(index, accumulator, this[index])
        result.add(accumulator)
    }
    return result
}

Returns a list containing successive accumulation values generated by applying [operation] from left to right to each element, its index in the original array and current accumulator value that starts with the first element of this array.

@param [operation] function that takes the index of an element, current accumulator value and the element itself, and calculates the next accumulator value.

@sample
samples.collections.Collections.Aggregates.runningReduce

Since Kotlin("1.4")
@kotlin.internal.InlineOnly
public inline fun
IntArray.runningReduceIndexed(operation: (index: Int, acc: Int, Int) -> Int): List<Int> {
    if (isEmpty()) return emptyList()
    var accumulator = this[0]
    val result = ArrayList<Int>(size).apply { add(accumulator) }
    for (index in 1 until size) {
        accumulator = operation(index, accumulator, this[index])
        result.add(accumulator)
    }
    return result
}

Returns a list containing successive accumulation values generated by applying [operation] from left to right to each element, its index in the original array and current accumulator value that starts with the first element of this array.

@param [operation] function that takes the index of an element, current accumulator value and the element itself, and calculates the next accumulator value.

@sample
samples.collections.Collections.Aggregates.runningReduce

Since Kotlin("1.4")
@kotlin.internal.InlineOnly
public inline fun

```

```

LongArray.runningReduceIndexed(operation: (index: Int, acc: Long, Long) -> Long): List<Long> {\n  if
(isEmpty()) return emptyList()\n  var accumulator = this[0]\n  val result = ArrayList<Long>(size).apply {
add(accumulator) }\n  for (index in 1 until size) {\n    accumulator = operation(index, accumulator, this[index])\n
    result.add(accumulator)\n  }\n  return result\n}\n\n/**\n * Returns a list containing successive
accumulation values generated by applying [operation] from left to right\n * to each element, its index in the
original array and current accumulator value that starts with the first element of this array.\n * \n * @param
[operation] function that takes the index of an element, current accumulator value\n * and the element itself, and
calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.runningReduce\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun
FloatArray.runningReduceIndexed(operation: (index: Int, acc: Float, Float) -> Float): List<Float> {\n  if
(isEmpty()) return emptyList()\n  var accumulator = this[0]\n  val result = ArrayList<Float>(size).apply {
add(accumulator) }\n  for (index in 1 until size) {\n    accumulator = operation(index, accumulator, this[index])\n
    result.add(accumulator)\n  }\n  return result\n}\n\n/**\n * Returns a list containing successive accumulation
values generated
by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator
value that starts with the first element of this array.\n * \n * @param [operation] function that takes the index of an
element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n *
@sample samples.collections.Collections.Aggregates.runningReduce\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun
DoubleArray.runningReduceIndexed(operation: (index: Int, acc: Double, Double) -> Double): List<Double> {\n  if
(isEmpty()) return emptyList()\n  var accumulator = this[0]\n  val result = ArrayList<Double>(size).apply {
add(accumulator) }\n  for (index in 1 until size) {\n    accumulator = operation(index, accumulator, this[index])\n
    result.add(accumulator)\n  }\n  return result\n}\n\n/**\n * Returns a list containing successive accumulation
values generated by applying
[operation] from left to right\n * to each element, its index in the original array and current accumulator value that
starts with the first element of this array.\n * \n * @param [operation] function that takes the index of an element,
current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.runningReduce\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun
BooleanArray.runningReduceIndexed(operation: (index: Int, acc: Boolean, Boolean) -> Boolean): List<Boolean>
{\n  if (isEmpty()) return emptyList()\n  var accumulator = this[0]\n  val result =
ArrayList<Boolean>(size).apply { add(accumulator) }\n  for (index in 1 until size) {\n    accumulator =
operation(index, accumulator, this[index])\n    result.add(accumulator)\n  }\n  return result\n}\n\n/**\n *
Returns a list containing successive accumulation values generated by applying [operation] from
left to right\n * to each element, its index in the original array and current accumulator value that starts with the first
element of this array.\n * \n * @param [operation] function that takes the index of an element, current accumulator
value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.runningReduce\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun
CharArray.runningReduceIndexed(operation: (index: Int, acc: Char, Char) -> Char): List<Char> {\n  if (isEmpty())
return emptyList()\n  var accumulator = this[0]\n  val result = ArrayList<Char>(size).apply { add(accumulator)
}\n  for (index in 1 until size) {\n    accumulator = operation(index, accumulator, this[index])\n
    result.add(accumulator)\n  }\n  return result\n}\n\n/**\n * Returns a list containing successive accumulation
values generated by applying [operation] from left to right\n * to each element
and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation]
function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param
[operation] function that takes current accumulator value and an element, and calculates the next accumulator

```

```

value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n
*\n@SinceKotlin("\1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <T, R>
Array<out T>.scan(initial: R, operation: (acc: R, T) -> R): List<R> {\n  return runningFold(initial,
operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation]
from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that
`acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in
resulting list.\n
 * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next
accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n
*\n@SinceKotlin("\1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline fun <R> ByteArray.scan(initial: R, operation: (acc: R, Byte) -> R): List<R> {\n  return runningFold(initial,
operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation]
from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that
`acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in
resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and
calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n
*\n@SinceKotlin("\1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline fun <R> ShortArray.scan(initial: R, operation: (acc: R, Short) -> R): List<R> {\n  return
runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by
applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial]
value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would
affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value
and an element, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.scan\n
*\n@SinceKotlin("\1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline fun <R> IntArray.scan(initial: R, operation: (acc: R, Int) -> R): List<R> {\n
  return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values
generated by applying [operation] from left to right\n * to each element and current accumulator value that starts
with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n *
otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current
accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.scan\n
*\n@SinceKotlin("\1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline fun <R> LongArray.scan(initial: R, operation: (acc: R, Long) -> R): List<R> {\n  return
runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by
applying [operation] from left to right\n * to each element and current accumulator
value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be
mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that
takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.scan\n
*\n@SinceKotlin("\1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline fun <R> FloatArray.scan(initial: R, operation: (acc: R, Float) -> R): List<R> {\n  return
runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by
applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial]
value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would
affect the previous value in resulting
list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the
next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n

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*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> DoubleArray.scan(initial: R, operation: (acc: R, Double) -> R): List<R> {\n    return
runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by
applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial]
value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would
affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value
and an element, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.scan\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> BooleanArray.scan(initial: R, operation: (acc: R, Boolean) -> R): List<R> {\n    return
runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by
applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial]
value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would
affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value
and an element, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.scan\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharArray.scan(initial: R, operation: (acc: R, Char) ->
R): List<R> {\n    return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive
accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original
array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to
[operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n *
@param [operation] function that takes the index of an element, current accumulator value\n * and the element
itself, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.scan\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <T, R>
Array<out T>.scanIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): List<R> {\n    return
runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values
generated by applying [operation] from left to right\n * to each element, its index in the original array and current
accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function
should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation]
function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the
next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> ByteArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Byte) -> R): List<R> {\n    return
runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values
generated by applying [operation] from left to right\n * to each element, its index in the original array
and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation]
function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param
[operation] function that takes the index of an element, current accumulator value\n * and the element itself, and
calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> ShortArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Short) -> R): List<R> {\n    return
runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values
generated by applying [operation] from left to right\n * to each element, its index in the original array and current
accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed
to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n *
\n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element

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itself, and calculates the next accumulator value.

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\n * \n * @sample
samples.collections.Collections.Aggregates.scan\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline fun <R> IntArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Int) -> R): List<R> {\n  return
runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values
generated by applying [operation] from left to right\n * to each element, its index in the original array and current
accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should
not be mutated;\n * otherwise it would affect the previous value in resulting
list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the
element itself, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.scan\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline fun <R> LongArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Long) -> R): List<R> {\n  return
runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values
generated by applying [operation] from left to right\n * to each element, its index in the original array and current
accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should
not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation]
function that takes the index of an element, current accumulator
value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.scan\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline fun <R> FloatArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Float) -> R): List<R> {\n  return
runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values
generated by applying [operation] from left to right\n * to each element, its index in the original array and current
accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should
not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation]
function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the
next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline fun <R> DoubleArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Double) -> R): List<R> {\n
return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values
generated by applying [operation] from left to right\n * to each element, its index in the original array and current
accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should
not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation]
function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the
next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c
inline fun <R> BooleanArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Boolean) -> R): List<R> {\n
return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values
generated by applying [operation] from left to right\n * to each element, its index in the original array and current
accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should
not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation]
function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the
next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline fun <R> CharArray.scanIndexed(initial:

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R, operation: (index: Int, acc: R, Char) -> R): List<R> {\n  return runningFoldIndexed(initial,
operation)\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the
array.\n */\n@Deprecated("Use sumOf instead.\n",
ReplaceWith("this.sumOf(selector)\n"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline fun <T>
Array<out T>.sumBy(selector: (T) -> Int): Int {\n  var sum: Int = 0\n  for (element in this) {\n    sum +=
selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the array.\n */\n@Deprecated("Use sumOf instead.\n",
ReplaceWith("this.sumOf(selector)\n"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline fun
ByteArray.sumBy(selector: (Byte) -> Int): Int {\n  var sum: Int = 0\n  for (element in this) {\n    sum +=
selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values
produced by [selector] function applied to each element in the array.\n */\n@Deprecated("Use sumOf instead.\n",
ReplaceWith("this.sumOf(selector)\n"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline fun
ShortArray.sumBy(selector: (Short) -> Int): Int {\n  var sum: Int = 0\n  for (element in this) {\n    sum +=
selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the array.\n */\n@Deprecated("Use sumOf instead.\n",
ReplaceWith("this.sumOf(selector)\n"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline fun
IntArray.sumBy(selector: (Int) -> Int): Int {\n  var sum: Int = 0\n  for (element in this) {\n    sum +=
selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the array.\n */\n@Deprecated("Use sumOf instead.\n",
ReplaceWith("this.sumOf(selector)\n"))\n@DeprecatedSinceKotlin(warningSince
= "1.5")\npublic inline fun LongArray.sumBy(selector: (Long) -> Int): Int {\n  var sum: Int = 0\n  for (element
in this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced
by [selector] function applied to each element in the array.\n */\n@Deprecated("Use sumOf instead.\n",
ReplaceWith("this.sumOf(selector)\n"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline fun
FloatArray.sumBy(selector: (Float) -> Int): Int {\n  var sum: Int = 0\n  for (element in this) {\n    sum +=
selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the array.\n */\n@Deprecated("Use sumOf instead.\n",
ReplaceWith("this.sumOf(selector)\n"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline fun
DoubleArray.sumBy(selector: (Double) -> Int): Int {\n  var sum: Int = 0\n  for (element in this) {\n
sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n */\n@Deprecated("Use sumOf instead.\n",
ReplaceWith("this.sumOf(selector)\n"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline fun
BooleanArray.sumBy(selector: (Boolean) -> Int): Int {\n  var sum: Int = 0\n  for (element in this) {\n    sum +=
selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the array.\n */\n@Deprecated("Use sumOf instead.\n",
ReplaceWith("this.sumOf(selector)\n"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline fun
CharArray.sumBy(selector: (Char) -> Int): Int {\n  var sum: Int = 0\n  for (element in this) {\n    sum +=
selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the
array.\n */\n@Deprecated("Use sumOf instead.\n",
ReplaceWith("this.sumOf(selector)\n"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline fun <T>
Array<out T>.sumByDouble(selector: (T) -> Double): Double {\n  var sum: Double = 0.0\n  for (element in this)
{\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n */\n@Deprecated("Use sumOf instead.\n",
ReplaceWith("this.sumOf(selector)\n"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline fun
ByteArray.sumByDouble(selector: (Byte) -> Double): Double {\n  var sum: Double = 0.0\n  for (element in this)
{\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n */\n@Deprecated("Use sumOf instead.\n",

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ReplaceWith("this.sumOf(selector)")\n@DeprecatedSinceKotlin(warningSince
= "1.5")\npublic inline fun ShortArray.sumByDouble(selector: (Short) -> Double): Double {\n    var sum: Double
= 0.0\n    for (element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum
of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated("Use sumOf
instead.", ReplaceWith("this.sumOf(selector)")\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline
fun IntArray.sumByDouble(selector: (Int) -> Double): Double {\n    var sum: Double = 0.0\n    for (element in
this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values
produced by [selector] function applied to each element in the array.\n */\n@Deprecated("Use sumOf instead.",
ReplaceWith("this.sumOf(selector)")\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline fun
LongArray.sumByDouble(selector: (Long) -> Double): Double {\n    var sum: Double = 0.0\n    for (element
in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all
values produced by [selector] function applied to each element in the array.\n */\n@Deprecated("Use sumOf
instead.", ReplaceWith("this.sumOf(selector)")\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline
fun FloatArray.sumByDouble(selector: (Float) -> Double): Double {\n    var sum: Double = 0.0\n    for (element
in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all
values produced by [selector] function applied to each element in the array.\n */\n@Deprecated("Use sumOf
instead.", ReplaceWith("this.sumOf(selector)")\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline
fun DoubleArray.sumByDouble(selector: (Double) -> Double): Double {\n    var sum: Double = 0.0\n    for (element
in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all
values produced by [selector] function applied to each element in the array.\n */\n@Deprecated("Use sumOf
instead.", ReplaceWith("this.sumOf(selector)")\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline
fun BooleanArray.sumByDouble(selector: (Boolean) -> Double): Double {\n    var sum: Double = 0.0\n    for (element
in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all
values produced by [selector] function applied to each element in the array.\n */\n@Deprecated("Use sumOf
instead.", ReplaceWith("this.sumOf(selector)")\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline
fun CharArray.sumByDouble(selector: (Char) -> Double): Double {\n    var sum: Double = 0.0\n    for (element
in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all
values produced by [selector] function applied to each element in the array.\n */\n\n*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfDouble")\n@kotlin.internal.InlineOnly\npublic
inline fun <T> Array<out T>.sumOf(selector: (T) -> Double): Double {\n    var sum: Double = 0.toDouble()\n    for
(element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all
values produced by [selector] function applied to each element in the array.\n */\n\n*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfDouble")\n@kotlin.internal.InlineOnly\npublic inline fun
ByteArray.sumOf(selector: (Byte) -> Double): Double {\n    var sum: Double = 0.toDouble()\n    for (element in
this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all
values produced by [selector] function applied to each element in the array.\n */\n\n*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfDouble")\n@kotlin.internal.InlineOnly\npublic
inline fun ShortArray.sumOf(selector: (Short) -> Double): Double {\n    var sum: Double = 0.toDouble()\n    for
(element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all
values produced by [selector] function applied to each element in the array.\n */\n\n*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfDouble")\n@kotlin.internal.InlineOnly\npublic inline fun
IntArray.sumOf(selector: (Int) -> Double): Double {\n    var sum: Double = 0.toDouble()\n    for (element in
this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all
values produced by [selector] function applied to each element in the array.\n */\n

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*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfDouble")\n@kotlin.internal.InlineOnly\npublic
inline fun LongArray.sumOf(selector: (Long) -> Double): Double {\n    var sum: Double = 0.toDouble()\n    for
(element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values
produced by [selector] function applied to each element in the array.\n
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ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfDouble")\n@kotlin.internal.InlineOnly\npublic inline fun
FloatArray.sumOf(selector: (Float) -> Double): Double {\n    var sum: Double = 0.toDouble()\n    for (element in
this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfDouble")\n@kotlin.internal.InlineOnly\npublic
inline fun DoubleArray.sumOf(selector: (Double) -> Double): Double {\n    var sum: Double = 0.toDouble()\n    for
(element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values
produced by [selector] function applied to each element in the array.\n
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ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfDouble")\n@kotlin.internal.InlineOnly\npublic inline fun
BooleanArray.sumOf(selector: (Boolean) -> Double): Double {\n    var sum: Double = 0.toDouble()\n    for
(element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values
produced by [selector] function applied to each element in the array.\n
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ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfDouble")\n@kotlin.internal.InlineOnly\npublic
inline fun CharArray.sumOf(selector: (Char) -> Double): Double {\n    var sum: Double = 0.toDouble()\n    for
(element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values
produced by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfInt")\n@kotlin.internal.InlineOnly\npublic inline fun <T>
Array<out T>.sumOf(selector: (T) -> Int): Int {\n    var sum: Int = 0.toInt()\n    for (element in this) {\n        sum +=
selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfInt")\n@kotlin.internal.InlineOnly\npublic
inline fun ByteArray.sumOf(selector: (Byte) -> Int): Int {\n    var sum: Int = 0.toInt()\n    for (element in this) {\n
sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector]
function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfInt")\n@kotlin.internal.InlineOnly\npublic inline fun
ShortArray.sumOf(selector: (Short) -> Int): Int {\n    var sum: Int = 0.toInt()\n    for (element in this) {\n        sum +=
selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfInt")\n@kotlin.internal.InlineOnly\npublic
inline fun IntArray.sumOf(selector: (Int) -> Int): Int {\n    var sum: Int = 0.toInt()\n    for (element in this) {\n
sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector]
function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfInt")\n@kotlin.internal.InlineOnly\npublic inline fun
LongArray.sumOf(selector: (Long) -> Int): Int {\n    var sum: Int = 0.toInt()\n    for (element in this) {\n        sum +=

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selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfInt")\n@kotlin.internal.InlineOnly\npublic
inline fun FloatArray.sumOf(selector: (Float) -> Int): Int {\n  var sum: Int = 0.toInt()\n  for (element in this) {\n
sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector]
function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfInt")\n@kotlin.internal.InlineOnly\npublic inline fun
DoubleArray.sumOf(selector: (Double) -> Int): Int {\n  var sum: Int = 0.toInt()\n  for (element in this) {\n
sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector]
function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfInt")\n@kotlin.internal.InlineOnly\npublic
inline fun BooleanArray.sumOf(selector: (Boolean) -> Int): Int {\n  var sum: Int = 0.toInt()\n  for (element in
this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfInt")\n@kotlin.internal.InlineOnly\npublic inline fun
CharArray.sumOf(selector: (Char) -> Int): Int {\n  var sum: Int = 0.toInt()\n  for (element in this) {\n    sum +=
selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfInt")\n@kotlin.internal.InlineOnly\npublic inline fun
<T> Array<out T>.sumOf(selector: (T) -> Long): Long {\n  var sum: Long = 0.toLong()\n  for
(element in this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values
produced by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfLong")\n@kotlin.internal.InlineOnly\npublic inline fun
ByteArray.sumOf(selector: (Byte) -> Long): Long {\n  var sum: Long = 0.toLong()\n  for (element in this) {\n
sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector]
function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfLong")\n@kotlin.internal.InlineOnly\npublic
inline fun ShortArray.sumOf(selector: (Short) -> Long): Long {\n  var sum: Long = 0.toLong()\n  for (element in
this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfLong")\n@kotlin.internal.InlineOnly\npublic inline fun
IntArray.sumOf(selector: (Int) -> Long): Long {\n  var sum: Long = 0.toLong()\n  for (element in this) {\n
sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector]
function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfLong")\n@kotlin.internal.InlineOnly\npublic
inline fun LongArray.sumOf(selector: (Long) -> Long): Long {\n  var sum: Long = 0.toLong()\n  for (element in
this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

```

```

ByLambdaReturnType\n@kotlin.jvm.JvmName("\sumOfLong")\n@kotlin.internal.InlineOnly\npublic inline fun
FloatArray.sumOf(selector: (Float) -> Long): Long {\n    var sum: Long = 0.toLong()\n    for (element in this) {\n
    sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector]
function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\sumOfLong")\n@kotlin.internal.InlineOnly\npublic
inline fun DoubleArray.sumOf(selector: (Double) -> Long): Long {\n    var sum: Long = 0.toLong()\n    for
(element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values
produced by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\sumOfLong")\n@kotlin.internal.InlineOnly\npublic inline fun
BooleanArray.sumOf(selector: (Boolean) -> Long): Long {\n    var sum: Long = 0.toLong()\n    for (element in this)
{\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\sumOfLong")\n@kotlin.internal.InlineOnly\npublic
inline fun CharArray.sumOf(selector: (Char) -> Long): Long {\n    var sum: Long = 0.toLong()\n    for (element in
this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\sumOfUInt")\n@WasExperimental(ExperimentalUnsignedType
s::class)\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.sumOf(selector: (T) -> UInt): UInt {\n
var sum: UInt = 0.toUInt()\n    for (element in this) {\n        sum += selector(element)\n    }\n    return
sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the
array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\sumOfUInt")\n@WasExperimental(ExperimentalUnsignedType
s::class)\n@kotlin.internal.InlineOnly\npublic
inline fun ByteArray.sumOf(selector: (Byte) -> UInt): UInt {\n    var sum: UInt = 0.toUInt()\n    for (element in
this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\sumOfUInt")\n@WasExperimental(ExperimentalUnsignedType
s::class)\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.sumOf(selector: (Short) -> UInt): UInt {\n    var
sum: UInt = 0.toUInt()\n    for (element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n *
Returns the sum of all values produced by [selector] function
applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\sumOfUInt")\n@WasExperimental(ExperimentalUnsignedType
s::class)\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.sumOf(selector: (Int) -> UInt): UInt {\n    var
sum: UInt = 0.toUInt()\n    for (element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n *
Returns the sum of all values produced by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\sumOfUInt")\n@WasExperimental(ExperimentalUnsignedType
s::class)\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.sumOf(selector: (Long) -> UInt): UInt {\n    var
sum: UInt = 0.toUInt()\n    for (element in this) {\n        sum += selector(element)\n
    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each
element in the array.\n

```

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*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfUInt")\n@WasExperimental(ExperimentalUnsignedType
s::class)\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.sumOf(selector: (Float) -> UInt): UInt {\n  var
sum: UInt = 0.toUInt()\n  for (element in this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/*\n *
Returns the sum of all values produced by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfUInt")\n@WasExperimental(ExperimentalUnsignedType
s::class)\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.sumOf(selector: (Double) -> UInt): UInt
{\n  var sum: UInt = 0.toUInt()\n  for (element in this) {\n    sum += selector(element)\n  }\n  return
sum\n}\n\n/*\n * Returns the sum of all values produced by [selector] function applied to each element in the
array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfUInt")\n@WasExperimental(ExperimentalUnsignedType
s::class)\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.sumOf(selector: (Boolean) -> UInt): UInt
{\n  var sum: UInt = 0.toUInt()\n  for (element in this) {\n    sum += selector(element)\n  }\n  return
sum\n}\n\n/*\n * Returns the sum of all values produced by [selector] function applied to each element in the
array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfUInt")\n@WasExperimental(ExperimentalUnsignedType
s::class)\n@kotlin.internal.InlineOnly\npublic
inline fun CharArray.sumOf(selector: (Char) -> UInt): UInt {\n  var sum: UInt = 0.toUInt()\n  for (element in
this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/*\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfULong")\n@WasExperimental(ExperimentalUnsignedTy
pes::class)\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.sumOf(selector: (T) -> ULong):
ULong {\n  var sum: ULong = 0.toULong()\n  for (element in this) {\n    sum += selector(element)\n  }\n
return sum\n}\n\n/*\n * Returns the sum of all values produced by [selector] function applied to each element in
the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfULong")\n@WasExperimental(ExperimentalUnsignedTy
pes::class)\n@kotlin.internal.InlineOnly\npublic
inline fun ByteArray.sumOf(selector: (Byte) -> ULong): ULong {\n  var sum: ULong = 0.toULong()\n  for
(element in this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/*\n * Returns the sum of all values
produced by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfULong")\n@WasExperimental(ExperimentalUnsignedTy
pes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.sumOf(selector: (Short) -> ULong): ULong
{\n  var sum: ULong = 0.toULong()\n  for (element in this) {\n    sum += selector(element)\n  }\n  return
sum\n}\n\n/*\n * Returns the sum of all values produced by [selector] function applied to each element in the
array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfULong")\n@WasExperimental(ExperimentalUnsignedTy
pes::class)\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.sumOf(selector: (Int) -> ULong): ULong {\n
var sum: ULong = 0.toULong()\n  for (element in this) {\n    sum += selector(element)\n  }\n  return
sum\n}\n\n/*\n * Returns the sum of all values produced by [selector] function applied to each element in the
array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

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```

ByLambdaReturnType\n@kotlin.jvm.JvmName("\sumOfULong")\n@WasExperimental(ExperimentalUnsignedTy
pes::class)\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.sumOf(selector: (Long) -> ULong): ULong
{\n    var sum: ULong = 0.toULong()\n    for (element in this) {\n        sum += selector(element)\n    }\n    return
sum\n}\n\n/**\n *

```

Returns the sum of all values produced by [selector] function applied to each element in the array.\n

```

*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\sumOfULong")\n@WasExperimental(ExperimentalUnsignedTy
pes::class)\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.sumOf(selector: (Float) -> ULong): ULong
{\n    var sum: ULong = 0.toULong()\n    for (element in this) {\n        sum += selector(element)\n    }\n    return
sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the
array.\n

```

```

*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\sumOfULong")\n@WasExperimental(ExperimentalUnsignedTy
pes::class)\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.sumOf(selector: (Double) -> ULong):
ULong {\n    var sum: ULong = 0.toULong()\n

```

for (element in this) {\n sum += selector(element)\n }\n return sum\n}\n\n/\*\*\n \* Returns the sum of all values produced by [selector] function applied to each element in the array.\n

```

*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\sumOfULong")\n@WasExperimental(ExperimentalUnsignedTy
pes::class)\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.sumOf(selector: (Boolean) -> ULong):
ULong {\n    var sum: ULong = 0.toULong()\n    for (element in this) {\n        sum += selector(element)\n    }\n
    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in
the array.\n

```

```

*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("\sumOfULong")\n@WasExperimental(ExperimentalUnsignedTy
pes::class)\n@kotlin.internal.InlineOnly\npublic

```

inline fun CharArray.sumOf(selector: (Char) -> ULong): ULong {\n var sum: ULong = 0.toULong()\n for (element in this) {\n sum += selector(element)\n }\n return sum\n}\n\n/\*\*\n \* Returns an original collection containing all the non-`null` elements, throwing an [IllegalArgumentException] if there are any `null` elements.\n

```

*\npublic fun <T : Any> Array<T?>.requireNonNulls(): Array<T> {\n    for (element in this) {\n        if (element ==
null) {\n            throw IllegalArgumentException("null element found in $this.")\n        }\n    }\n

```

```

@Suppress("UNCHECKED_CAST")\n    return this as Array<T>\n}\n\n/**\n * Splits the original array into pair
of lists,\n * where *first* list contains elements for which [predicate] yielded `true`,\n * while *second* list contains
elements for which [predicate] yielded `false`.\n * \n * @sample

```

```

samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n *\npublic inline fun <T> Array<out
T>.partition(predicate:

```

```

(T) -> Boolean): Pair<List<T>, List<T>> {\n    val first = ArrayList<T>()\n    val second = ArrayList<T>()\n    for
(element in this) {\n        if (predicate(element)) {\n            first.add(element)\n        } else {\n

```

```

second.add(element)\n        }\n    }\n    return Pair(first, second)\n}\n\n/**\n * Splits the original array into pair of
lists,\n * where *first* list contains elements for which [predicate] yielded `true`,\n * while *second* list contains
elements for which [predicate] yielded `false`.\n * \n * @sample

```

```

samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n *\npublic inline fun

```

```

ByteArray.partition(predicate: (Byte) -> Boolean): Pair<List<Byte>, List<Byte>> {\n    val first =
ArrayList<Byte>()\n    val second = ArrayList<Byte>()\n    for (element in this) {\n        if (predicate(element)) {\n
        first.add(element)\n        } else {\n            second.add(element)\n        }\n    }\n    return Pair(first,
second)\n}\n\n/**\n

```

```

 * Splits the original array into pair of lists,\n * where *first* list contains elements for which [predicate] yielded
`true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n * \n * @sample

```

```

samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n * public inline fun
ShortArray.partition(predicate: (Short) -> Boolean): Pair<List<Short>, List<Short>> {\n val first =
ArrayList<Short>()\n val second = ArrayList<Short>()\n for (element in this) {\n if (predicate(element)) {\n
first.add(element)\n } else {\n second.add(element)\n }\n }\n return Pair(first,
second)\n}\n\n**\n * Splits the original array into pair of lists,\n * where *first* list contains elements for which
[predicate] yielded `true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n * \n *
@sample samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n
*\n public inline fun IntArray.partition(predicate: (Int) -> Boolean): Pair<List<Int>, List<Int>> {\n val first =
ArrayList<Int>()\n val second = ArrayList<Int>()\n for (element in this) {\n if (predicate(element)) {\n
first.add(element)\n } else {\n second.add(element)\n }\n }\n return Pair(first,
second)\n}\n\n**\n * Splits the original array into pair of lists,\n * where *first* list contains elements for which
[predicate] yielded `true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n * \n *
@sample samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n
*\n public inline fun LongArray.partition(predicate: (Long) -> Boolean): Pair<List<Long>, List<Long>> {\n val first =
ArrayList<Long>()\n val second = ArrayList<Long>()\n for (element in this) {\n if (predicate(element)) {\n
first.add(element)\n } else {\n second.add(element)\n }\n }\n return Pair(first, second)\n}\n\n**\n * Splits the original array into pair of lists,\n * where *first*
list contains elements for which [predicate] yielded `true`,\n * while *second* list contains elements for which
[predicate] yielded `false`.\n * \n * @sample
samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n * public inline fun
FloatArray.partition(predicate: (Float) -> Boolean): Pair<List<Float>, List<Float>> {\n val first =
ArrayList<Float>()\n val second = ArrayList<Float>()\n for (element in this) {\n if (predicate(element)) {\n
first.add(element)\n } else {\n second.add(element)\n }\n }\n return Pair(first,
second)\n}\n\n**\n * Splits the original array into pair of lists,\n * where *first* list contains elements for which
[predicate] yielded `true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n * \n *
@sample samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n
*\n public inline fun DoubleArray.partition(predicate: (Double) -> Boolean): Pair<List<Double>, List<Double>>
{\n val first = ArrayList<Double>()\n val second = ArrayList<Double>()\n for (element in this) {\n if
(predicate(element)) {\n first.add(element)\n } else {\n second.add(element)\n }\n }\n
return Pair(first, second)\n}\n\n**\n * Splits the original array into pair of lists,\n * where *first* list contains
elements for which [predicate] yielded `true`,\n * while *second* list contains elements for which [predicate]
yielded `false`.\n * \n * @sample samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n
*\n public inline fun BooleanArray.partition(predicate: (Boolean) -> Boolean): Pair<List<Boolean>,
List<Boolean>> {\n val first = ArrayList<Boolean>()\n val second = ArrayList<Boolean>()\n for (element in
this) {\n if (predicate(element)) {\n
first.add(element)\n } else {\n second.add(element)\n }\n }\n return Pair(first,
second)\n}\n\n**\n * Splits the original array into pair of lists,\n * where *first* list contains elements for which
[predicate] yielded `true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n * \n *
@sample samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n
*\n public inline fun CharArray.partition(predicate: (Char) -> Boolean): Pair<List<Char>, List<Char>> {\n val first =
ArrayList<Char>()\n val second = ArrayList<Char>()\n for (element in this) {\n if (predicate(element)) {\n
first.add(element)\n } else {\n second.add(element)\n }\n }\n return Pair(first,
second)\n}\n\n**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the
same index.\n * The returned list has length of the shortest collection.\n * \n *
@sample samples.collections.Iterables.Operations.zipIterable\n * public infix fun <T, R> Array<out
T>.zip(other: Array<out R>): List<Pair<T, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n**\n * Returns a
list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has
length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n * public

```





```

val list = ArrayList<V>(size)\n for (i in 0 until size) {\n list.add(transform(this[i], other[i]))\n }\n return
list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same
index\n * using the provided [transform] function applied to each pair of elements.\n *
The returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V>
LongArray.zip(other: Array<out R>, transform: (a: Long, b: R) -> V): List<V> {\n val size = minOf(size,
other.size)\n val list = ArrayList<V>(size)\n for (i in 0 until size) {\n list.add(transform(this[i], other[i]))\n
}\n return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array
with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned
list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V>
FloatArray.zip(other: Array<out R>, transform: (a: Float, b: R) -> V): List<V> {\n val size = minOf(size,
other.size)\n val list = ArrayList<V>(size)\n for (i in 0 until size) {\n list.add(transform(this[i],
other[i]))\n }\n return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the
[other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n *
The returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V>
DoubleArray.zip(other: Array<out R>, transform: (a: Double, b: R) -> V): List<V> {\n val size = minOf(size,
other.size)\n val list = ArrayList<V>(size)\n for (i in 0 until size) {\n list.add(transform(this[i], other[i]))\n
}\n return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array
with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned
list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n
*/\npublic inline fun <R, V> BooleanArray.zip(other: Array<out R>, transform: (a: Boolean, b: R) -> V): List<V>
{\n val size = minOf(size, other.size)\n val list = ArrayList<V>(size)\n for (i in 0 until size) {\n
list.add(transform(this[i], other[i]))\n }\n return list\n}\n\n/**\n * Returns a list of values built from the elements
of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each
pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V>
CharArray.zip(other: Array<out R>, transform: (a: Char, b: R) -> V): List<V> {\n val size = minOf(size,
other.size)\n val list = ArrayList<V>(size)\n for (i in 0 until size) {\n list.add(transform(this[i], other[i]))\n
}\n return list\n}\n\n/**\n * Returns a list of pairs
built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of
the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun
<T, R> Array<out T>.zip(other: Iterable<R>): List<Pair<T, R>> {\n return zip(other) { t1, t2 -> t1 to t2
}\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same
index.\n * The returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> ByteArray.zip(other: Iterable<R>):
List<Pair<Byte, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the
elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest
collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic
infix fun <R> ShortArray.zip(other: Iterable<R>): List<Pair<Short, R>> {\n return zip(other) { t1, t2 -> t1 to t2
}\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same
index.\n * The returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> IntArray.zip(other: Iterable<R>):
List<Pair<Int, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the
elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest
collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R>

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LongArray.zip(other: Iterable<R>): List<Pair<Long, R>> {\n  return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> FloatArray.zip(other: Iterable<R>):
List<Pair<Float, R>> {\n  return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the
elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest
collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R>
DoubleArray.zip(other: Iterable<R>): List<Pair<Double, R>> {\n  return zip(other) { t1, t2 -> t1 to t2
}\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same
index.\n * The returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> BooleanArray.zip(other:
Iterable<R>): List<Pair<Boolean, R>> {\n
  return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this`
collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n *
@sample
samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> CharArray.zip(other:
Iterable<R>): List<Pair<Char, R>> {\n  return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values
built from the elements of `this` array and the [other] collection with the same index\n * using the provided
[transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n *
\n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <T, R, V>
Array<out T>.zip(other: Iterable<R>, transform: (a: T, b: R) -> V): List<V> {\n  val arraySize = size\n  val list =
ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n  var i = 0\n  for (element in other) {\n    if (i
>= arraySize) break\n    list.add(transform(this[i++], element))\n  }\n  return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection
with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned
list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V>
ByteArray.zip(other: Iterable<R>, transform: (a: Byte, b: R) -> V): List<V> {\n  val arraySize = size\n  val list =
ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n  var i = 0\n  for (element in other) {\n    if (i
>= arraySize) break\n    list.add(transform(this[i++], element))\n  }\n  return list\n}\n\n/**\n * Returns a
list of values built from the elements of `this` array and the [other] collection with the same index\n * using
the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest
collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline
fun <R, V> ShortArray.zip(other: Iterable<R>, transform: (a: Short, b: R) -> V): List<V> {\n  val arraySize =
size\n  val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n  var i = 0\n  for (element
in other) {\n    if (i >= arraySize) break\n    list.add(transform(this[i++], element))\n  }\n  return
list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the
same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has
length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V>
IntArray.zip(other: Iterable<R>, transform:
(a: Int, b: R) -> V): List<V> {\n  val arraySize = size\n  val list =
ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n  var i = 0\n  for (element in other) {\n    if (i
>= arraySize) break\n    list.add(transform(this[i++], element))\n  }\n  return list\n}\n\n/**\n * Returns a
list of values built from the elements of `this` array and the [other] collection with the same index\n * using the
provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest
collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline
fun <R, V> LongArray.zip(other: Iterable<R>, transform: (a: Long, b: R) -> V): List<V> {\n  val arraySize =
size\n  val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n  var i = 0\n  for (element

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in other) {\n    if (i >= arraySize) break\n        list.add(transform(this[i++], element))\n
}\n    return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other]
collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The
returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n *\npublic inline fun <R, V>
FloatArray.zip(other: Iterable<R>, transform: (a: Float, b: R) -> V): List<V> {\n    val arraySize = size\n    val list =
ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n    var i = 0\n    for (element in other) {\n
if (i >= arraySize) break\n        list.add(transform(this[i++], element))\n    }\n    return list\n}\n\n/**\n * Returns a
list of values built from the elements of `this` array and the [other] collection with the same index\n * using the
provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest
collection.\n
* \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n *\npublic inline fun <R, V>
DoubleArray.zip(other: Iterable<R>, transform: (a: Double, b: R) -> V): List<V> {\n    val arraySize = size\n    val
list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n    var i = 0\n    for (element in other)
{\n    if (i >= arraySize) break\n        list.add(transform(this[i++], element))\n    }\n    return list\n}\n\n/**\n *
Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n *
using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the
shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\npublic inline fun <R, V> BooleanArray.zip(other: Iterable<R>, transform: (a: Boolean, b: R) -> V): List<V> {\n
val arraySize = size\n    val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10),
arraySize))\n    var i = 0\n    for (element in other) {\n        if (i >= arraySize) break\n
list.add(transform(this[i++], element))\n    }\n    return list\n}\n\n/**\n * Returns a list of values built from the
elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function
applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n *\npublic inline fun <R, V>
CharArray.zip(other: Iterable<R>, transform: (a: Char, b: R) -> V): List<V> {\n    val arraySize = size\n    val list =
ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n    var i = 0\n    for (element in other) {\n
if (i >= arraySize) break\n        list.add(transform(this[i++], element))\n    }\n    return list\n}\n\n/**\n * Returns a
list of pairs built from the elements of `this` array and the [other] array
with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterable\n *\npublic infix fun ByteArray.zip(other: ByteArray):
List<Pair<Byte, Byte>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from
the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest
collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n *\npublic infix fun
ShortArray.zip(other: ShortArray): List<Pair<Short, Short>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n
* Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The
returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterable\n *\npublic infix fun IntArray.zip(other: IntArray):
List<Pair<Int, Int>> {\n
return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and
the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterable\n *\npublic infix fun LongArray.zip(other: LongArray):
List<Pair<Long, Long>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from
the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest
collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n *\npublic infix fun
FloatArray.zip(other: FloatArray): List<Pair<Float, Float>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n
* Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The
returned list has length of the shortest collection.\n * \n * @sample

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samples.collections.Iterables.Operations.zipIterable\n * \npublic infix fun DoubleArray.zip(other: DoubleArray):
List<Pair<Double, Double>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built
from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the
shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n * \npublic infix fun
BooleanArray.zip(other: BooleanArray): List<Pair<Boolean, Boolean>> {\n    return zip(other) { t1, t2 -> t1 to t2
}\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same
index.\n * The returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterable\n * \npublic infix fun CharArray.zip(other: CharArray):
List<Pair<Char, Char>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values built
from the elements of `this` array and the [other] array with the same index\n * using the provided [transform]
function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n * \npublic inline fun <V> ByteArray.zip(other:
ByteArray, transform: (a: Byte, b: Byte) -> V): List<V> {\n    val size = minOf(size, other.size)\n    val list =
ArrayList<V>(size)\n    for (i in 0 until size) {\n        list.add(transform(this[i], other[i]))\n    }\n    return
list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same
index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length
of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n * \npublic inline fun <V> ShortArray.zip(other: ShortArray, transform: (a: Short,
b: Short) -> V): List<V> {\n    val size = minOf(size, other.size)\n    val list = ArrayList<V>(size)\n    for (i in 0
until size) {\n        list.add(transform(this[i], other[i]))\n    }\n    return list\n}\n\n/**\n * Returns a list of values built
from the elements of `this` array and the [other] array with the same index\n * using the provided [transform]
function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n * \npublic inline fun <V> IntArray.zip(other:
IntArray, transform: (a: Int, b: Int) -> V): List<V> {\n    val size = minOf(size, other.size)\n    val list =
ArrayList<V>(size)\n    for (i in 0 until size) {\n        list.add(transform(this[i], other[i]))\n    }\n    return
list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same
index\n * using the provided [transform] function applied
to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n * \npublic inline fun <V>
LongArray.zip(other: LongArray, transform: (a: Long, b: Long) -> V): List<V> {\n    val size = minOf(size,
other.size)\n    val list = ArrayList<V>(size)\n    for (i in 0 until size) {\n        list.add(transform(this[i], other[i]))\n
}\n    return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array
with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned
list has length of the shortest array.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n * \npublic inline fun <V>
FloatArray.zip(other: FloatArray, transform: (a: Float, b: Float) -> V): List<V> {\n    val size = minOf(size,
other.size)\n    val list = ArrayList<V>(size)\n    for (i in 0 until size)
{\n        list.add(transform(this[i], other[i]))\n    }\n    return list\n}\n\n/**\n * Returns a list of values built from the
elements of `this` array and the [other] array with the same index\n * using the provided [transform] function
applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n * \npublic inline fun <V>
DoubleArray.zip(other: DoubleArray, transform: (a: Double, b: Double) -> V): List<V> {\n    val size = minOf(size,
other.size)\n    val list = ArrayList<V>(size)\n    for (i in 0 until size) {\n        list.add(transform(this[i], other[i]))\n
}\n    return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array
with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned
list has length of the shortest array.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n

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*/\npublic inline fun <V> BooleanArray.zip(other: BooleanArray, transform: (a: Boolean, b: Boolean) -> V):
List<V> {\n  val size = minOf(size, other.size)\n  val list = ArrayList<V>(size)\n  for (i in 0 until size) {\n
list.add(transform(this[i], other[i]))\n  }\n  return list\n}\n\n/**\n * Returns a list of values built from the elements
of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each
pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <V>
CharArray.zip(other: CharArray, transform: (a: Char, b: Char) -> V): List<V> {\n  val size = minOf(size,
other.size)\n  val list = ArrayList<V>(size)\n  for (i in 0 until size) {\n    list.add(transform(this[i], other[i]))\n
}\n  return list\n}\n\n/**\n * Appends the string
from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If
the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n *
elements will be appended, followed by the [truncated] string (which defaults to `"...`").\n * \n * @sample
samples.collections.Collections.Transformations.joinTo\n */\npublic fun <T, A : Appendable> Array<out
T>.joinTo(buffer: A, separator: CharSequence = ``, ``, prefix: CharSequence = ``, postfix: CharSequence = ``,
limit: Int = -1, truncated: CharSequence = `"...`", transform: ((T) -> CharSequence)? = null): A {\n
buffer.append(prefix)\n  var count = 0\n  for (element in this) {\n    if (++count > 1) buffer.append(separator)\n
    if (limit < 0 || count <= limit) {\n      buffer.appendElement(element, transform)\n    } else break\n  }\n  if
(limit >= 0 && count > limit) buffer.append(truncated)\n  buffer.append(postfix)\n
return buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the
given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value
of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string
(which defaults to `"...`").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun
<A : Appendable> ByteArray.joinTo(buffer: A, separator: CharSequence = ``, ``, prefix: CharSequence = ``,
postfix: CharSequence = ``, limit: Int = -1, truncated: CharSequence = `"...`", transform: ((Byte) ->
CharSequence)? = null): A {\n  buffer.append(prefix)\n  var count = 0\n  for (element in this) {\n    if (++count
> 1) buffer.append(separator)\n    if (limit < 0 || count <= limit) {\n      if (transform != null)\n        buffer.append(transform(element))\n      else\n        buffer.append(element.toString())\n    } else break\n  }\n  if (limit >= 0 && count > limit)
buffer.append(truncated)\n  buffer.append(postfix)\n  return buffer\n}\n\n/**\n * Appends the string from all the
elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection
could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will
be appended, followed by the [truncated] string (which defaults to `"...`").\n * \n * @sample
samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A : Appendable>
ShortArray.joinTo(buffer: A, separator: CharSequence = ``, ``, prefix: CharSequence = ``, postfix: CharSequence
= ``, limit: Int = -1, truncated: CharSequence = `"...`", transform: ((Short) -> CharSequence)? = null): A {\n
buffer.append(prefix)\n  var count = 0\n  for (element in this) {\n    if (++count > 1) buffer.append(separator)\n
    if (limit < 0 || count <= limit) {\n      if (transform != null)\n        buffer.append(transform(element))\n      else\n        buffer.append(element.toString())\n    } else break\n  }\n  if (limit >= 0 && count > limit)
buffer.append(truncated)\n  buffer.append(postfix)\n  return buffer\n}\n\n/**\n * Appends the string from all the
elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection
could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will
be appended, followed by the [truncated] string (which defaults to `"...`").\n * \n * @sample
samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A : Appendable> IntArray.joinTo(buffer:
A, separator: CharSequence = ``, ``, prefix: CharSequence = ``, postfix: CharSequence = ``, limit: Int = -1,
truncated: CharSequence = `"...`", transform: ((Int) ->
CharSequence)? = null): A {\n  buffer.append(prefix)\n  var count = 0\n  for (element in this) {\n    if
(++count > 1) buffer.append(separator)\n    if (limit < 0 || count <= limit) {\n      if (transform != null)\n        buffer.append(transform(element))\n      else\n        buffer.append(element.toString())\n    } else break\n  }\n
}

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}\n if (limit >= 0 && count > limit) buffer.append(truncated)\n buffer.append(postfix)\n return
buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given
[prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of
[limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which
defaults to "...").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n * \npublic fun <A :
Appendable> LongArray.joinTo(buffer: A, separator:
CharSequence = "\", \", prefix: CharSequence = "\", postfix: CharSequence = "\", limit: Int = -1, truncated:
CharSequence = "...", transform: ((Long) -> CharSequence)? = null): A {\n buffer.append(prefix)\n var count =
0\n for (element in this) {\n if (++count > 1) buffer.append(separator)\n if (limit < 0 || count <= limit) {\n
if (transform != null)\n buffer.append(transform(element))\n else\n
buffer.append(element.toString())\n } else break\n }\n if (limit >= 0 && count > limit)
buffer.append(truncated)\n buffer.append(postfix)\n return buffer\n}\n\n/**\n * Appends the string from all the
elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection
could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will
be appended, followed by the [truncated] string (which defaults to
"...").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n * \npublic fun <A :
Appendable> FloatArray.joinTo(buffer: A, separator: CharSequence = "\", \", prefix: CharSequence = "\", postfix:
CharSequence = "\", limit: Int = -1, truncated: CharSequence = "...", transform: ((Float) -> CharSequence)? =
null): A {\n buffer.append(prefix)\n var count = 0\n for (element in this) {\n if (++count > 1)
buffer.append(separator)\n if (limit < 0 || count <= limit) {\n if (transform != null)\n
buffer.append(transform(element))\n else\n buffer.append(element.toString())\n } else break\n
}\n if (limit >= 0 && count > limit) buffer.append(truncated)\n buffer.append(postfix)\n return
buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given
[prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify
a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the
[truncated] string (which defaults to "...").\n * \n * @sample
samples.collections.Collections.Transformations.joinTo\n * \npublic fun <A : Appendable>
DoubleArray.joinTo(buffer: A, separator: CharSequence = "\", \", prefix: CharSequence = "\", postfix:
CharSequence = "\", limit: Int = -1, truncated: CharSequence = "...", transform: ((Double) -> CharSequence)? =
null): A {\n buffer.append(prefix)\n var count = 0\n for (element in this) {\n if (++count > 1)
buffer.append(separator)\n if (limit < 0 || count <= limit) {\n if (transform != null)\n
buffer.append(transform(element))\n else\n buffer.append(element.toString())\n } else break\n
}\n if (limit >= 0 && count > limit) buffer.append(truncated)\n buffer.append(postfix)\n return
buffer\n}\n\n/**\n * Appends the string
from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If
the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n *
elements will be appended, followed by the [truncated] string (which defaults to "...").\n * \n * @sample
samples.collections.Collections.Transformations.joinTo\n * \npublic fun <A : Appendable>
BooleanArray.joinTo(buffer: A, separator: CharSequence = "\", \", prefix: CharSequence = "\", postfix:
CharSequence = "\", limit: Int = -1, truncated: CharSequence = "...", transform: ((Boolean) -> CharSequence)? =
null): A {\n buffer.append(prefix)\n var count = 0\n for (element in this) {\n if (++count > 1)
buffer.append(separator)\n if (limit < 0 || count <= limit) {\n if (transform != null)\n
buffer.append(transform(element))\n else\n buffer.append(element.toString())\n }
else break\n }\n if (limit >= 0 && count > limit) buffer.append(truncated)\n buffer.append(postfix)\n return
buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given
[prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of
[limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which
defaults to "...").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n * \npublic fun <A :

```

```

Appendable> CharArray.joinTo(buffer: A, separator: CharSequence = "\", prefix: CharSequence = "\", postfix:
CharSequence = "\", limit: Int = -1, truncated: CharSequence = "...", transform: ((Char) -> CharSequence)? =
null): A {
    buffer.append(prefix)
    var count = 0
    for (element in this) {
        if (++count > 1)
            buffer.append(separator)
        if (limit < 0 || count <= limit) {
            if (transform != null)
                buffer.append(transform(element))
            else
                buffer.append(element)
        } else break
    }
    if (limit >= 0 && count > limit) buffer.append(truncated)
    buffer.append(postfix)
    return buffer
}

```

Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied. If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit] elements will be appended, followed by the [truncated] string (which defaults to "...").

@sample

```

samples.collections.Collections.Transformations.joinToString

```

```

T>.joinToString(separator: CharSequence = "\", prefix: CharSequence = "\", postfix: CharSequence = "\", limit:
Int = -1, truncated: CharSequence = "...", transform: ((T) -> CharSequence)? = null): String {
    return
    joinTo(StringBuilder(), separator,
    prefix, postfix, limit, truncated, transform).toString()
}

```

Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied. If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit] elements will be appended, followed by the [truncated] string (which defaults to "...").

@sample

```

samples.collections.Collections.Transformations.joinToString

```

```

public fun ByteArray.joinToString(separator:
CharSequence = "\", prefix: CharSequence = "\", postfix: CharSequence = "\", limit: Int = -1, truncated:
CharSequence = "...", transform: ((Byte) -> CharSequence)? = null): String {
    return joinTo(StringBuilder(),
    separator, prefix, postfix, limit, truncated, transform).toString()
}

```

Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied. If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit] elements will be appended, followed by the [truncated] string (which defaults to "...").

@sample

```

samples.collections.Collections.Transformations.joinToString

```

```

public fun ShortArray.joinToString(separator:
CharSequence = "\", prefix: CharSequence = "\", postfix: CharSequence = "\", limit: Int = -1, truncated:
CharSequence = "...", transform: ((Short) -> CharSequence)? = null): String {
    return joinTo(StringBuilder(),
    separator, prefix, postfix, limit, truncated, transform).toString()
}

```

Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied. If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit] elements will be appended, followed by the [truncated] string (which defaults to "...").

@sample

```

samples.collections.Collections.Transformations.joinToString

```

```

public fun IntArray.joinToString(separator:
CharSequence = "\", prefix: CharSequence = "\", postfix: CharSequence = "\", limit: Int = -1, truncated:
CharSequence = "...", transform: ((Int) -> CharSequence)? = null): String {
    return joinTo(StringBuilder(),
    separator, prefix, postfix, limit, truncated, transform).toString()
}

```

Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied. If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit] elements will be appended, followed by the [truncated] string (which defaults to "...").

@sample

```

samples.collections.Collections.Transformations.joinToString

```

```

public fun LongArray.joinToString(separator:
CharSequence = "\", prefix: CharSequence = "\", postfix: CharSequence = "\", limit: Int = -1, truncated:
CharSequence = "...", transform: ((Long) -> CharSequence)? = null): String {
    return joinTo(StringBuilder(),
    separator, prefix, postfix, limit, truncated, transform).toString()
}

```

Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied. If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit] elements will be appended, followed by the [truncated] string (which defaults to "...").

@sample

```

samples.collections.Collections.Transformations.joinToString

```

```

public fun FloatArray.joinToString(separator:
CharSequence = "\", prefix: CharSequence = "\", postfix: CharSequence = "\", limit: Int = -1, truncated:
CharSequence = "...", transform: ((Float) -> CharSequence)? = null): String {
    return joinTo(StringBuilder(),
    separator, prefix, postfix, limit, truncated, transform).toString()
}

```

Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied. If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit] elements will be appended, followed by the [truncated] string (which defaults to "...").

@sample

```

samples.collections.Collections.Transformations.joinToString

```

```

CharSequence = "...", transform: ((Float) -> CharSequence)? = null): String {
    return joinTo(StringBuilder(),
separator, prefix, postfix, limit, truncated, transform).toString()
}

/**
 * Creates a string
 * from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.
 * If
 * the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]
 * elements will be appended, followed by the [truncated] string (which defaults to "...").
 * @sample
samples.collections.Collections.Transformations.joinToString

public fun DoubleArray.joinToString(separator:
CharSequence = ", ", prefix: CharSequence = "", postfix: CharSequence = "", limit: Int = -1, truncated:
CharSequence = "...", transform: ((Double) -> CharSequence)? = null): String {
    return joinTo(StringBuilder(),
separator, prefix, postfix, limit, truncated, transform).toString()
}

/**
 * Creates a string from all the elements
 * separated using [separator] and using the given [prefix] and [postfix] if supplied.
 * If the collection could be
 * huge, you can specify a non-negative value of [limit], in which case
 * only the first [limit] elements will be appended, followed by the [truncated] string (which defaults to "...").
 * @sample
samples.collections.Collections.Transformations.joinToString

public fun
BooleanArray.joinToString(separator: CharSequence = ", ", prefix: CharSequence = "", postfix: CharSequence =
"", limit: Int = -1, truncated: CharSequence = "...", transform: ((Boolean) -> CharSequence)? = null): String {
    return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()
}

/**
 * Creates
 * a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.
 * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first
 * [limit] elements will be appended, followed by the [truncated] string (which defaults to "...").
 * @sample
samples.collections.Collections.Transformations.joinToString

public fun
CharArray.joinToString(separator: CharSequence = ", ", prefix: CharSequence = "", postfix: CharSequence =
"", limit: Int = -1, truncated: CharSequence = "...", transform: ((Char) -> CharSequence)? = null): String {
    return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()
}

/**
 * Creates
 * an [Iterable] instance that wraps the original array returning its elements when being iterated.
 * @public fun <T>
Array<out T>.asIterable(): Iterable<T> {
    if (isEmpty()) return emptyList()
    return Iterable { this.iterator()
}

/**
 * Creates an [Iterable] instance that wraps the original array returning its elements when being
 * iterated.
 * @public fun ByteArray.asIterable(): Iterable<Byte> {
    if (isEmpty()) return emptyList()
    return
Iterable { this.iterator() }

/**
 * Creates an [Iterable] instance that wraps the original array returning its
 * elements when being iterated.
 * @public fun ShortArray.asIterable():
Iterable<Short> {
    if (isEmpty()) return emptyList()
    return Iterable { this.iterator() }

/**
 * Creates an
 * [Iterable] instance that wraps the original array returning its elements when being iterated.
 * @public fun
IntArray.asIterable(): Iterable<Int> {
    if (isEmpty()) return emptyList()
    return Iterable { this.iterator()
}

/**
 * Creates an [Iterable] instance that wraps the original array returning its elements when being
 * iterated.
 * @public fun LongArray.asIterable(): Iterable<Long> {
    if (isEmpty()) return emptyList()
    return
Iterable { this.iterator() }

/**
 * Creates an [Iterable] instance that wraps the original array returning its
 * elements when being iterated.
 * @public fun FloatArray.asIterable(): Iterable<Float> {
    if (isEmpty()) return
emptyList()
    return Iterable { this.iterator() }

/**
 * Creates an [Iterable] instance that wraps the original
 * array returning its elements when being iterated.
 * @public
fun DoubleArray.asIterable(): Iterable<Double> {
    if (isEmpty()) return emptyList()
    return Iterable {
this.iterator() }

/**
 * Creates an [Iterable] instance that wraps the original array returning its elements when
 * being iterated.
 * @public fun BooleanArray.asIterable(): Iterable<Boolean> {
    if (isEmpty()) return
emptyList()
    return Iterable { this.iterator() }

/**
 * Creates an [Iterable] instance that wraps the original
 * array returning its elements when being iterated.
 * @public fun CharArray.asIterable(): Iterable<Char> {
    if
(isEmpty()) return emptyList()
    return Iterable { this.iterator() }

/**
 * Creates a [Sequence] instance that
 * wraps the original array returning its elements when being iterated.
 * @sample
samples.collections.Sequences.Building.sequenceFromArray

public fun <T> Array<out T>.asSequence():
Sequence<T> {
    if (isEmpty()) return emptySequence()
    return Sequence { this.iterator() }
}

```



```

* Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n *
@sample samples.collections.Sequences.Building.sequenceFromArray\n *^\npublic fun ByteArray.asSequence():
Sequence<Byte> {\n if (isEmpty()) return emptySequence()\n return Sequence { this.iterator() }\n}\n\n/**\n *
Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n *
@sample samples.collections.Sequences.Building.sequenceFromArray\n *^\npublic fun ShortArray.asSequence():
Sequence<Short> {\n if (isEmpty()) return emptySequence()\n return Sequence { this.iterator() }\n}\n\n/**\n *
Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n *
@sample samples.collections.Sequences.Building.sequenceFromArray\n *^\npublic fun IntArray.asSequence():
Sequence<Int> {\n if (isEmpty()) return emptySequence()\n return Sequence { this.iterator() }\n}\n\n/**\n *
Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n *
@sample samples.collections.Sequences.Building.sequenceFromArray\n *^\npublic fun LongArray.asSequence():
Sequence<Long> {\n if (isEmpty()) return emptySequence()\n return Sequence { this.iterator() }\n}\n\n/**\n *
Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n *
@sample samples.collections.Sequences.Building.sequenceFromArray\n *^\npublic fun FloatArray.asSequence():
Sequence<Float> {\n if (isEmpty()) return emptySequence()\n return Sequence { this.iterator() }\n}\n\n/**\n *
Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n *
@sample samples.collections.Sequences.Building.sequenceFromArray\n *^\npublic fun DoubleArray.asSequence():
Sequence<Double> {\n if (isEmpty()) return emptySequence()\n return Sequence { this.iterator()
}\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original array returning its elements when being
iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromArray\n *^\npublic fun
BooleanArray.asSequence(): Sequence<Boolean> {\n if (isEmpty()) return emptySequence()\n return Sequence
{ this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original array returning its elements
when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromArray\n *^\npublic
fun CharArray.asSequence(): Sequence<Char> {\n if (isEmpty()) return emptySequence()\n return Sequence {
this.iterator() }\n}\n\n/**\n * Returns an average value of elements in the array.\n
*^\n@kotlin.jvm.JvmName("averageOfByte")\npublic fun Array<out Byte>.average(): Double {\n var sum:
Double = 0.0\n var count: Int = 0\n for (element in this) {\n sum += element\n ++count\n }\n return
if (count == 0) Double.NaN
else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n
*^\n@kotlin.jvm.JvmName("averageOfShort")\npublic fun Array<out Short>.average(): Double {\n var sum:
Double = 0.0\n var count: Int = 0\n for (element in this) {\n sum += element\n ++count\n }\n return
if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n
*^\n@kotlin.jvm.JvmName("averageOfInt")\npublic fun Array<out Int>.average(): Double {\n var sum: Double
= 0.0\n var count: Int = 0\n for (element in this) {\n sum += element\n ++count\n }\n return if (count
== 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n
*^\n@kotlin.jvm.JvmName("averageOfLong")\npublic fun Array<out Long>.average(): Double {\n var sum:
Double = 0.0\n var count: Int = 0\n for (element in this) {\n sum += element\n ++count\n }\n return
if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n
*^\n@kotlin.jvm.JvmName("averageOfFloat")\npublic fun Array<out Float>.average(): Double {\n var sum:
Double = 0.0\n var count: Int = 0\n for (element in this) {\n sum += element\n ++count\n }\n return
if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n
*^\n@kotlin.jvm.JvmName("averageOfDouble")\npublic fun Array<out Double>.average(): Double {\n var sum:
Double = 0.0\n var count: Int = 0\n for (element in this) {\n sum += element\n ++count\n }\n return
if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n
*^\npublic fun ByteArray.average(): Double {\n var sum: Double = 0.0\n var count: Int = 0\n for (element in
this) {\n sum += element\n ++count\n }\n return if (count ==
0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n
*^\npublic fun ShortArray.average(): Double {\n var sum: Double = 0.0\n var count: Int = 0\n for (element in this) {\n

```

```

sum += element\n    ++count\n    }\n    return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns
an average value of elements in the array.\n */\npublic fun IntArray.average(): Double {\n    var sum: Double = 0.0\n    var count: Int = 0\n    for (element in this) {\n        sum += element\n        ++count\n    }\n    return if (count == 0)
Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\npublic fun
LongArray.average(): Double {\n    var sum: Double = 0.0\n    var count: Int = 0\n    for (element in this) {\n
sum += element\n        ++count\n    }\n    return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns
an average value of elements in the array.\n */\npublic fun
FloatArray.average(): Double {\n    var sum: Double = 0.0\n    var count: Int = 0\n    for (element in this) {\n
sum += element\n        ++count\n    }\n    return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns
an average value of elements in the array.\n */\npublic fun DoubleArray.average(): Double {\n    var sum: Double =
0.0\n    var count: Int = 0\n    for (element in this) {\n        sum += element\n        ++count\n    }\n    return if (count
== 0) Double.NaN else sum / count\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n\n
*\/\n@kotlin.jvm.JvmName("sumOfByte")\npublic fun Array<out Byte>.sum(): Int {\n    var sum: Int = 0\n    for
(element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the
array.\n */\n@kotlin.jvm.JvmName("sumOfShort")\npublic fun Array<out Short>.sum(): Int {\n    var sum: Int =
0\n    for (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all
elements in the array.\n */\n@kotlin.jvm.JvmName("sumOfInt")\npublic fun Array<out
Int>.sum(): Int {\n    var sum: Int = 0\n    for (element in this) {\n        sum += element\n    }\n    return
sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n\n
*\/\n@kotlin.jvm.JvmName("sumOfLong")\npublic fun Array<out Long>.sum(): Long {\n    var sum: Long = 0L\n
for (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in
the array.\n */\n@kotlin.jvm.JvmName("sumOfFloat")\npublic fun Array<out Float>.sum(): Float {\n    var sum:
Float = 0.0f\n    for (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of
all elements in the array.\n */\n@kotlin.jvm.JvmName("sumOfDouble")\npublic fun Array<out Double>.sum():
Double {\n    var sum: Double = 0.0\n    for (element in this) {\n        sum += element\n    }\n    return
sum\n}\n\n/**\n * Returns
the sum of all elements in the array.\n */\npublic fun ByteArray.sum(): Int {\n    var sum: Int = 0\n    for (element in
this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n\n
*\/\npublic fun ShortArray.sum(): Int {\n    var sum: Int = 0\n    for (element in this) {\n        sum += element\n    }\n
return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n\n
*\/\npublic fun IntArray.sum(): Int {\n    var sum: Int = 0\n    for (element in this) {\n        sum += element\n    }\n
return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n\n
*\/\npublic fun LongArray.sum(): Long {\n    var sum: Long = 0L\n    for (element in this) {\n        sum += element\n    }\n
return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n\n
*\/\npublic fun FloatArray.sum(): Float {\n    var sum: Float = 0.0f\n    for (element in this) {\n        sum += element\n    }\n
return sum\n}\n\n/**\n * Returns
the sum of all elements in the array.\n */\n\n
*\/\npublic fun DoubleArray.sum(): Double {\n    var sum: Double = 0.0\n    for (element in this) {\n        sum += element\n    }\n
return sum\n}\n\n"/\n * Copyright 2010-2022 JetBrains
s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0
license that can be found in the license/LICENSE.txt file.\n\n
*\/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("RangesKt")\n\npackage
kotlin.ranges\n\n/\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\nimport kotlin.random.*\n\n/**\n * Returns the
first element.\n * \n * @throws NoSuchElementException if the progression is empty.\n */\n\n
*\/\n@SinceKotlin("1.7")\npublic fun IntProgression.first(): Int {\n    if (isEmpty())\n        throw
NoSuchElementException("Progression $this is empty.")\n    return this.first\n}\n\n/**\n * Returns
the first element.\n * \n * @throws NoSuchElementException if the progression is empty.\n */\n\n
*\/\n@SinceKotlin("1.7")\npublic fun LongProgression.first(): Long {\n    if (isEmpty())\n        throw
NoSuchElementException("Progression $this is empty.")\n    return this.first\n}\n\n/**\n * Returns the first

```

```

element.\n * \n * @throws NoSuchElementException if the progression is empty.\n
*\n@SinceKotlin("1.7")\npublic fun CharProgression.first(): Char {\n if (isEmpty())\n throw
NoSuchElementException("Progression $this is empty.")\n return this.first()\n}\n\n/**\n * Returns the first
element, or `null` if the progression is empty.\n *\n@SinceKotlin("1.7")\npublic fun IntProgression.firstOrNull():
Int? {\n return if (isEmpty()) null else this.first()\n}\n\n/**\n * Returns the first element, or `null` if the progression
is empty.\n *\n@SinceKotlin("1.7")\npublic fun LongProgression.firstOrNull(): Long? {\n return if (isEmpty())
null else this.first()\n}\n}\n\n/**\n * Returns the first element, or `null` if the progression is empty.\n *\n@SinceKotlin("1.7")\npublic fun
CharProgression.firstOrNull(): Char? {\n return if (isEmpty()) null else this.first()\n}\n}\n\n/**\n * Returns the last
element.\n *\n * @throws NoSuchElementException if the progression is empty.\n *\n * @sample
samples.collections.Collections.Elements.last\n *\n@SinceKotlin("1.7")\npublic fun IntProgression.last(): Int {\n
if (isEmpty())\n throw NoSuchElementException("Progression $this is empty.")\n return this.last()\n}\n\n/**\n * Returns the last element.\n *\n * @throws NoSuchElementException if the progression is empty.\n *\n *
@sample samples.collections.Collections.Elements.last\n *\n@SinceKotlin("1.7")\npublic fun
LongProgression.last(): Long {\n if (isEmpty())\n throw NoSuchElementException("Progression $this is
empty.")\n return this.last()\n}\n}\n\n/**\n * Returns the last element.\n *\n * @throws NoSuchElementException if
the progression
is empty.\n *\n * @sample samples.collections.Collections.Elements.last\n *\n@SinceKotlin("1.7")\npublic fun
CharProgression.last(): Char {\n if (isEmpty())\n throw NoSuchElementException("Progression $this is
empty.")\n return this.last()\n}\n}\n\n/**\n * Returns the last element, or `null` if the progression is empty.\n *\n *
@sample samples.collections.Collections.Elements.last\n *\n@SinceKotlin("1.7")\npublic fun
IntProgression.lastOrNull(): Int? {\n return if (isEmpty()) null else this.last()\n}\n\n/**\n * Returns the last element,
or `null` if the progression is empty.\n *\n * @sample samples.collections.Collections.Elements.last\n
*\n@SinceKotlin("1.7")\npublic fun LongProgression.lastOrNull(): Long? {\n return if (isEmpty()) null else
this.last()\n}\n}\n\n/**\n * Returns the last element, or `null` if the progression is empty.\n *\n * @sample
samples.collections.Collections.Elements.last\n *\n@SinceKotlin("1.7")\npublic fun
CharProgression.lastOrNull():
Char? {\n return if (isEmpty()) null else this.last()\n}\n}\n\n/**\n * Returns a random element from this range.\n *\n *
@throws IllegalArgumentException if this range is empty.\n
*\n *\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline fun IntRange.random(): Int {\n return
random(Random)\n}\n}\n\n/**\n * Returns a random element from this range.\n *\n * @throws
IllegalArgumentException if this range is empty.\n *\n *\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic
inline fun LongRange.random(): Long {\n return random(Random)\n}\n}\n\n/**\n * Returns a random element from
this range.\n *\n * @throws IllegalArgumentException if this range is empty.\n
*\n *\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline fun CharRange.random(): Char {\n return
random(Random)\n}\n}\n\n/**\n * Returns a random element from this range using the specified source of
randomness.\n *\n * @throws IllegalArgumentException if this range is empty.\n
*\n *\n@SinceKotlin("1.3")\npublic
fun IntRange.random(random: Random): Int {\n try {\n return random.nextInt(this)\n } catch(e:
IllegalArgumentException) {\n throw NoSuchElementException(e.message)\n }\n}\n}\n\n/**\n * Returns a
random element from this range using the specified source of randomness.\n *\n * @throws
IllegalArgumentException if this range is empty.\n *\n *\n@SinceKotlin("1.3")\npublic fun
LongRange.random(random: Random): Long {\n try {\n return random.nextLong(this)\n } catch(e:
IllegalArgumentException) {\n throw NoSuchElementException(e.message)\n }\n}\n}\n\n/**\n * Returns a
random element from this range using the specified source of randomness.\n *\n * @throws
IllegalArgumentException if this range is empty.\n *\n *\n@SinceKotlin("1.3")\npublic fun
CharRange.random(random: Random): Char {\n try {\n return random.nextInt(first.code, last.code +
1).toChar()\n } catch(e: IllegalArgumentException) {\n throw NoSuchElementException(e.message)\n
}

```

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    }
}

Returns a random element from this range, or `null` if this range is empty.

@SinceKotlin("1.4")@WasExperimental(ExperimentalStdlibApi::class)@kotlin.internal.InlineOnly public inline fun IntRange.randomOrNull(): Int? {
    return randomOrNull(Random)
}

Returns a random element from this range, or `null` if this range is empty.

@SinceKotlin("1.4")@WasExperimental(ExperimentalStdlibApi::class)@kotlin.internal.InlineOnly public inline fun LongRange.randomOrNull(): Long? {
    return randomOrNull(Random)
}

Returns a random element from this range, or `null` if this range is empty.

@SinceKotlin("1.4")@WasExperimental(ExperimentalStdlibApi::class)@kotlin.internal.InlineOnly public inline fun CharRange.randomOrNull(): Char? {
    return randomOrNull(Random)
}

Returns a random element from this range using the specified source of randomness, or `null` if this range is empty.

@SinceKotlin("1.4")@WasExperimental(ExperimentalStdlibApi::class) public fun IntRange.randomOrNull(random: Random): Int? {
    if (isEmpty())
        return null
    return random.nextInt(this)
}

Returns a random element from this range using the specified source of randomness, or `null` if this range is empty.

@SinceKotlin("1.4")@WasExperimental(ExperimentalStdlibApi::class) public fun LongRange.randomOrNull(random: Random): Long? {
    if (isEmpty())
        return null
    return random.nextLong(this)
}

Returns a random element from this range using the specified source of randomness, or `null` if this range is empty.

@SinceKotlin("1.4")@WasExperimental(ExperimentalStdlibApi::class) public fun CharRange.randomOrNull(random: Random): Char? {
    if (isEmpty())
        return null
    return random.nextInt(first.code, last.code + 1).toChar()
}

Returns `true` if this range contains the specified [element].

Always returns `false` if the [element] is `null`.

@SinceKotlin("1.3")@kotlin.internal.InlineOnly public inline operator fun IntRange.contains(element: Int?): Boolean {
    return element != null && contains(element)
}

Returns `true` if this range contains the specified [element].

Always returns `false` if the [element] is `null`.

@SinceKotlin("1.3")@kotlin.internal.InlineOnly public inline operator fun LongRange.contains(element: Long?): Boolean {
    return element != null && contains(element)
}

Returns `true` if this range contains the specified [element].

Always returns `false` if the [element] is `null`.

@SinceKotlin("1.3")@kotlin.internal.InlineOnly public inline operator fun CharRange.contains(element: Char?): Boolean {
    return element != null && contains(element)
}

Checks if the specified [value] belongs to this range.

@kotlin.jvm.JvmName("intRangeContains") public operator fun ClosedRange<Int>.contains(value: Byte): Boolean {
    return contains(value.toInt())
}

Checks if the specified [value] belongs to this range.

@kotlin.jvm.JvmName("longRangeContains") public operator fun ClosedRange<Long>.contains(value: Byte): Boolean {
    return contains(value.toLong())
}

Checks if the specified [value] belongs to this range.

@kotlin.jvm.JvmName("shortRangeContains") public operator fun ClosedRange<Short>.contains(value: Byte): Boolean {
    return contains(value.toShort())
}

Checks if the specified [value] belongs to this range.

@Deprecated("This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.")@DeprecatedSinceKotlin(warningSince = "1.3", errorSince = "1.4", hiddenSince = "1.5")@kotlin.jvm.JvmName("doubleRangeContains") public operator fun ClosedRange<Double>.contains(value: Byte): Boolean {
    return contains(value.toDouble())
}

Checks if the specified [value] belongs to this range.

@Deprecated("This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.")@DeprecatedSinceKotlin(warningSince = "1.3", errorSince = "1.4", hiddenSince = "1.5")@kotlin.jvm.JvmName("floatRangeContains") public operator fun ClosedRange<Float>.contains(value: Byte): Boolean {
    return contains(value.toFloat())
}

Checks if the specified [value] belongs to this range.

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*\n@kotlin.jvm.JvmName("intRangeContains")\n@SinceKotlin("1.7")\n@ExperimentalStdlibApi\npublic
operator fun OpenEndRange<Int>.contains(value: Byte): Boolean {\n    return contains(value.toInt())\n}\n\n/**\n *
Checks if the specified [value] belongs to this range.\n
*\n@kotlin.jvm.JvmName("longRangeContains")\n@SinceKotlin("1.7")\n@ExperimentalStdlibApi\npublic
operator fun OpenEndRange<Long>.contains(value: Byte): Boolean {\n    return
contains(value.toLong())\n}\n\n/**\n *
Checks if the specified [value] belongs to this range.\n
*\n@kotlin.jvm.JvmName("shortRangeContains")\n@SinceKotlin("1.7")\n@ExperimentalStdlibApi\npublic
operator fun OpenEndRange<Short>.contains(value: Byte): Boolean {\n    return
contains(value.toShort())\n}\n\n/**\n *
Checks if the specified [value] belongs to this range.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun IntRange.contains(value: Byte): Boolean {\n    return
(this as ClosedRange<Int>).contains(value)\n}\n\n/**\n *
Checks if the specified [value] belongs to this range.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun LongRange.contains(value: Byte): Boolean {\n    return
(this as ClosedRange<Long>).contains(value)\n}\n\n/**\n *
Checks if the specified [value] belongs to this range.\n
*\n@Deprecated("This `contains` operation mixing integer and floating point arguments has ambiguous semantics
and is going to be removed.")\n@DeprecatedSinceKotlin(warningSince
= "1.3", errorSince = "1.4", hiddenSince = "1.5")\n@kotlin.jvm.JvmName("intRangeContains")\npublic
operator fun ClosedRange<Int>.contains(value: Double): Boolean {\n    return value.toIntExactOrNull().let { if (it
!= null) contains(it) else false }\n}\n\n/**\n *
Checks if the specified [value] belongs to this range.\n
*\n@Deprecated("This `contains` operation mixing integer and floating point arguments has ambiguous semantics
and is going to be removed.")\n@DeprecatedSinceKotlin(warningSince = "1.3", errorSince = "1.4", hiddenSince
= "1.5")\n@kotlin.jvm.JvmName("longRangeContains")\npublic operator fun
ClosedRange<Long>.contains(value: Double): Boolean {\n    return value.toLongExactOrNull().let { if (it != null)
contains(it) else false }\n}\n\n/**\n *
Checks if the specified [value] belongs to this range.\n
*\n@Deprecated("This `contains` operation mixing integer and floating point arguments has ambiguous semantics
and is going to be removed.")\n@DeprecatedSinceKotlin(warningSince
= "1.3", errorSince = "1.4", hiddenSince = "1.5")\n@kotlin.jvm.JvmName("byteRangeContains")\npublic
operator fun ClosedRange<Byte>.contains(value: Double): Boolean {\n    return value.toByteExactOrNull().let { if
(it != null) contains(it) else false }\n}\n\n/**\n *
Checks if the specified [value] belongs to this range.\n
*\n@Deprecated("This `contains` operation mixing integer and floating point arguments has ambiguous semantics
and is going to be removed.")\n@DeprecatedSinceKotlin(warningSince = "1.3", errorSince = "1.4", hiddenSince
= "1.5")\n@kotlin.jvm.JvmName("shortRangeContains")\npublic operator fun
ClosedRange<Short>.contains(value: Double): Boolean {\n    return value.toShortExactOrNull().let { if (it != null)
contains(it) else false }\n}\n\n/**\n *
Checks if the specified [value] belongs to this range.\n
*\n@kotlin.jvm.JvmName("floatRangeContains")\npublic operator fun ClosedRange<Float>.contains(value:
Double): Boolean {\n    return
contains(value.toFloat())\n}\n\n/**\n *
Checks if the specified [value] belongs to this range.\n
*\n@Deprecated("This `contains` operation mixing integer and floating point arguments has ambiguous semantics
and is going to be removed.")\n@DeprecatedSinceKotlin(warningSince = "1.3", errorSince = "1.4", hiddenSince
= "1.5")\n@kotlin.jvm.JvmName("intRangeContains")\npublic operator fun ClosedRange<Int>.contains(value:
Float): Boolean {\n    return value.toIntExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n *
Checks if the specified [value] belongs to this range.\n
*\n@Deprecated("This `contains` operation mixing integer
and floating point arguments has ambiguous semantics and is going to be
removed.")\n@DeprecatedSinceKotlin(warningSince = "1.3", errorSince = "1.4", hiddenSince =
"1.5")\n@kotlin.jvm.JvmName("longRangeContains")\npublic operator fun ClosedRange<Long>.contains(value:
Float): Boolean {\n    return value.toLongExactOrNull().let
{ if (it != null) contains(it) else false }\n}\n\n/**\n *
Checks if the specified [value] belongs to this range.\n
*\n@Deprecated("This `contains` operation mixing integer and floating point arguments has ambiguous semantics

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and is going to be removed.})\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"byteRangeContains\")\npublic operator fun ClosedRange<Byte>.contains(value: Float): Boolean {\n return value.toByteExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/\*\*\n \* Checks if the specified [value] belongs to this range.\n \*\n \*/\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.})\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"shortRangeContains\")\npublic operator fun ClosedRange<Short>.contains(value: Float): Boolean {\n return value.toShortExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/\*\*\n \* Checks if the specified [value] belongs to this range.\n \*\n \*/\n@kotlin.jvm.JvmName(\"doubleRangeContains\")\npublic operator fun ClosedRange<Double>.contains(value: Float): Boolean {\n return contains(value.toDouble())\n}\n\n/\*\*\n \* Checks if the specified [value] belongs to this range.\n \*\n \*/\n@kotlin.jvm.JvmName(\"doubleRangeContains\")\n@SinceKotlin(\"1.7\")\n@ExperimentalStdlibApi\npublic operator fun OpenEndRange<Double>.contains(value: Float): Boolean {\n return contains(value.toDouble())\n}\n\n/\*\*\n \* Checks if the specified [value] belongs to this range.\n \*\n \*/\n@kotlin.jvm.JvmName(\"longRangeContains\")\npublic operator fun ClosedRange<Long>.contains(value: Int): Boolean {\n return contains(value.toLong())\n}\n\n/\*\*\n \* Checks if the specified [value] belongs to this range.\n \*\n \*/\n@kotlin.jvm.JvmName(\"byteRangeContains\")\npublic operator fun ClosedRange<Byte>.contains(value: Int): Boolean {\n return value.toByteExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/\*\*\n \* Checks if the specified [value] belongs to this range.\n \*\n \*/\n@kotlin.jvm.JvmName(\"shortRangeContains\")\npublic operator fun ClosedRange<Short>.contains(value: Int): Boolean {\n return value.toShortExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/\*\*\n \* Checks if the specified [value] belongs to this range.\n \*\n \*/\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.})\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"doubleRangeContains\")\npublic operator fun ClosedRange<Double>.contains(value: Int): Boolean {\n return contains(value.toDouble())\n}\n\n/\*\*\n \* Checks if the specified [value] belongs to this range.\n \*\n \*/\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.})\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"floatRangeContains\")\npublic operator fun ClosedRange<Float>.contains(value: Int): Boolean {\n return contains(value.toFloat())\n}\n\n/\*\*\n \* Checks if the specified [value] belongs to this range.\n \*\n \*/\n@kotlin.jvm.JvmName(\"longRangeContains\")\n@SinceKotlin(\"1.7\")\n@ExperimentalStdlibApi\npublic operator fun OpenEndRange<Long>.contains(value: Int): Boolean {\n return contains(value.toLong())\n}\n\n/\*\*\n \* Checks if the specified [value] belongs to this range.\n \*\n \*/\n@kotlin.jvm.JvmName(\"byteRangeContains\")\n@SinceKotlin(\"1.7\")\n@ExperimentalStdlibApi\npublic operator fun OpenEndRange<Byte>.contains(value: Int): Boolean {\n return value.toByteExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/\*\*\n \* Checks if the specified [value] belongs to this range.\n \*\n \*/\n@kotlin.jvm.JvmName(\"shortRangeContains\")\n@SinceKotlin(\"1.7\")\n@ExperimentalStdlibApi\npublic operator fun OpenEndRange<Short>.contains(value: Int): Boolean {\n return value.toShortExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/\*\*\n \* Checks if the specified [value] belongs to this range.\n \*\n \*/\n@kotlin.internal.InlineOnly\npublic inline operator fun LongRange.contains(value: Int): Boolean {\n return (this as ClosedRange<Long>).contains(value)\n}\n\n/\*\*\n \* Checks if the specified [value] belongs to this range.\n \*\n \*/\n@kotlin.jvm.JvmName(\"intRangeContains\")\npublic operator fun ClosedRange<Int>.contains(value: Long): Boolean {\n return value.toIntExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/\*\*\n \* Checks if the specified [value] belongs to this range.\n \*\n \*/\n@kotlin.jvm.JvmName(\"byteRangeContains\")\npublic operator fun ClosedRange<Byte>.contains(value: Long): Boolean {\n return value.toByteExactOrNull().let { if (it != null)



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operator fun OpenEndRange<Long>.contains(value: Short): Boolean {
    return contains(value.toLong())
}
// Checks if the specified [value] belongs to this range.
// @kotlin.jvm.JvmName("byteRangeContains")
// @SinceKotlin("1.7")
// @ExperimentalStdlibApi
public operator fun OpenEndRange<Byte>.contains(value: Short): Boolean {
    return value.toByteExactOrNull().let {
        (it != null) contains(it) else false
    }
}
// Checks if the specified [value] belongs to this range.
// @kotlin.internal.InlineOnly
public inline operator fun IntRange.contains(value: Short): Boolean {
    return (this as ClosedRange<Int>).contains(value)
}
// Checks if the specified [value] belongs to this range.
// @kotlin.internal.InlineOnly
public inline operator fun LongRange.contains(value: Short): Boolean {
    return (this as ClosedRange<Long>).contains(value)
}
// Returns a progression from this value down to the
// specified [to] value with the step -1.
// The [to] value should be less than or equal to `this` value.
// If the [to] value is greater than `this` value the returned progression is empty.
// @public infix fun Int.downTo(to: Byte): IntProgression {
    return IntProgression.fromClosedRange(this, to.toInt(), -1)
}
// Returns a progression from this value down to the specified [to] value with the step -1.
// The [to] value should be less than or equal to `this` value.
// If the [to] value is greater than `this` value
// the returned progression is empty.
// @public infix fun Long.downTo(to: Byte): LongProgression {
    return LongProgression.fromClosedRange(this, to.toLong(), -1L)
}
// Returns a progression from this value
// down to the specified [to] value with the step -1.
// The [to] value should be less than or equal to `this` value.
// If the [to] value is greater than `this` value the returned progression is empty.
// @public infix fun Byte.downTo(to: Byte): IntProgression {
    return IntProgression.fromClosedRange(this.toInt(), to.toInt(), -1)
}
// Returns a progression from this value down to the specified [to] value with the step -1.
// The [to] value should be less than or equal to `this` value.
// If the [to] value is greater than `this` value the returned
// progression is empty.
// @public infix fun Short.downTo(to: Byte): IntProgression {
    return IntProgression.fromClosedRange(this.toInt(), to.toInt(), -1)
}
// Returns a progression from
// this value down to the specified [to] value with the step -1.
// The [to] value should be less than or equal to
// `this` value.
// If the [to] value is greater than `this` value the returned progression is empty.
// @public infix fun Char.downTo(to: Char): CharProgression {
    return CharProgression.fromClosedRange(this, to, -1)
}
// Returns a progression from this value down to the specified [to] value with the step -1.
// The [to] value should
// be less than or equal to `this` value.
// If the [to] value is greater than `this` value the returned progression is
// empty.
// @public infix fun Int.downTo(to: Int): IntProgression {
    return IntProgression.fromClosedRange(this, to, -1)
}
// Returns a progression from this value down to the specified [to] value with the step -1.
// The [to] value should be less than or equal to `this` value.
// If the [to] value is greater than `this` value the
// returned progression is empty.
// @public infix fun Long.downTo(to: Int): LongProgression {
    return LongProgression.fromClosedRange(this, to.toLong(), -1L)
}
// Returns a progression from this value down to the specified [to] value with the step -1.
// The [to] value should be less than or equal to `this` value.
// If the [to] value is greater than `this` value the
// returned progression is empty.
// @public infix fun Byte.downTo(to: Int): IntProgression {
    return IntProgression.fromClosedRange(this.toInt(), to, -1)
}
// Returns a progression from this value down to the
// specified [to] value with the step -1.
// The [to] value should be less than or equal to `this` value.
// If the [to]
// value is greater than `this` value the returned progression is empty.
// @public infix fun Short.downTo(to: Int): IntProgression {
    return IntProgression.fromClosedRange(this.toInt(), to, -1)
}
// Returns a progression
// from this value down to the specified [to] value with the step -1.
// The [to]
// value should be less than or equal to `this` value.
// If the [to] value is greater than `this` value the returned
// progression is empty.
// @public infix fun Int.downTo(to: Long): LongProgression {
    return LongProgression.fromClosedRange(this.toLong(), to, -1L)
}
// Returns a progression from this value
// down to the specified [to] value with the step -1.
// The [to] value should be less than or equal to `this` value.
// If the [to] value is greater than `this` value the returned progression is empty.
// @public infix fun Long.downTo(to: Long): LongProgression {
    return LongProgression.fromClosedRange(this, to, -1L)
}
// Returns a progression from this value down to the specified [to] value with the step -1.

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The [to] value should be less than or equal to `this` value.\n \* If the [to] value is greater than `this` value the returned progression is empty.\n \*/\npublic infix fun Byte.downTo(to: Long): LongProgression {\n return LongProgression.fromClosedRange(this.toLong(), to, -1L)\n}\n\n/\*\*\n \* Returns a progression from this value down to the specified [to] value with the step -1.\n \* The [to] value should be less than or equal to `this` value.\n \* If the [to] value is greater than `this` value the returned progression is empty.\n \*/\npublic infix fun Short.downTo(to: Long): LongProgression {\n return LongProgression.fromClosedRange(this.toLong(), to, -1L)\n}\n\n/\*\*\n \* Returns a progression from this value down to the specified [to] value with the step -1.\n \* The [to] value should be less than or equal to `this` value.\n \* If the [to] value is greater than `this` value the returned progression is empty.\n \*/\npublic infix fun Int.downTo(to: Short): IntProgression {\n return IntProgression.fromClosedRange(this, to.toInt(), -1)\n}\n\n/\*\*\n \* Returns a progression from this value down to the specified [to] value with the step -1.\n \* The [to] value should be less than or equal to `this` value.\n \* If the [to] value is greater than `this` value the returned progression is empty.\n \*/\npublic infix fun Long.downTo(to: Short): LongProgression {\n return LongProgression.fromClosedRange(this, to.toLong(), -1L)\n}\n\n/\*\*\n \* Returns a progression from this value down to the specified [to] value with the step -1.\n \* The [to] value should be less than or equal to `this` value.\n \* If the [to] value is greater than `this` value the returned progression is empty.\n \*/\npublic infix fun Byte.downTo(to: Short): IntProgression {\n return IntProgression.fromClosedRange(this.toInt(), to.toInt(), -1)\n}\n\n/\*\*\n \* Returns a progression from this value down to the specified [to] value with the step -1.\n \* The [to] value should be less than or equal to `this` value.\n \* If the [to] value is greater than `this` value the returned progression is empty.\n \*/\npublic infix fun Short.downTo(to: Short): IntProgression {\n return IntProgression.fromClosedRange(this.toInt(), to.toInt(), -1)\n}\n\n/\*\*\n \* Returns a progression that goes over the same range in the opposite direction with the same step.\n \*/\npublic fun IntProgression.reversed(): IntProgression {\n return IntProgression.fromClosedRange(last, first, -step)\n}\n\n/\*\*\n \* Returns a progression that goes over the same range in the opposite direction with the same step.\n \*/\npublic fun LongProgression.reversed(): LongProgression {\n return LongProgression.fromClosedRange(last, first, -step)\n}\n\n/\*\*\n \* Returns a progression that goes over the same range in the opposite direction with the same step.\n \*/\npublic fun CharProgression.reversed(): CharProgression {\n return CharProgression.fromClosedRange(last, first, -step)\n}\n\n/\*\*\n \* Returns a progression that goes over the same range with the given step.\n \*/\npublic infix fun IntProgression.step(step: Int): IntProgression {\n checkStepIsPositive(step > 0, step)\n return IntProgression.fromClosedRange(first, last, if (this.step > 0) step else -step)\n}\n\n/\*\*\n \* Returns a progression that goes over the same range with the given step.\n \*/\npublic infix fun LongProgression.step(step: Long): LongProgression {\n checkStepIsPositive(step > 0, step)\n return LongProgression.fromClosedRange(first, last, if (this.step > 0) step else -step)\n}\n\n/\*\*\n \* Returns a progression that goes over the same range with the given step.\n \*/\npublic infix fun CharProgression.step(step: Int): CharProgression {\n checkStepIsPositive(step > 0, step)\n return CharProgression.fromClosedRange(first, last, if (this.step > 0) step else -step)\n}\n\ninternal fun Int.toByteExactOrNull(): Byte? {\n return if (this in Byte.MIN\_VALUE.toInt()..Byte.MAX\_VALUE.toInt()) this.toByte() else null\n}\n\ninternal fun Long.toByteExactOrNull(): Byte? {\n return if (this in Byte.MIN\_VALUE.toLong()..Byte.MAX\_VALUE.toLong()) this.toByte() else null\n}\n\ninternal fun Short.toByteExactOrNull(): Byte? {\n return if (this in Byte.MIN\_VALUE.toShort()..Byte.MAX\_VALUE.toShort()) this.toByte() else null\n}\n\ninternal fun Double.toByteExactOrNull(): Byte? {\n return if (this in Byte.MIN\_VALUE.toDouble()..Byte.MAX\_VALUE.toDouble()) this.toInt().toByte() else null\n}\n\ninternal fun Float.toByteExactOrNull(): Byte? {\n return if (this in Byte.MIN\_VALUE.toFloat()..Byte.MAX\_VALUE.toFloat()) this.toInt().toByte() else null\n}\n\ninternal fun Long.toIntExactOrNull(): Int? {\n return if (this in Int.MIN\_VALUE.toLong()..Int.MAX\_VALUE.toLong()) this.toInt() else null\n}\n\ninternal fun Double.toIntExactOrNull(): Int? {\n return if (this in Int.MIN\_VALUE.toDouble()..Int.MAX\_VALUE.toDouble()) this.toInt() else null\n}\n\ninternal fun

Float.toIntExactOrNull(): Int? {\n return if (this in Int.MIN\_VALUE.toFloat()..Int.MAX\_VALUE.toFloat()) this.toInt() else null\n}\n\ninternal fun Double.toLongExactOrNull(): Long? {\n return if (this in Long.MIN\_VALUE.toDouble()..Long.MAX\_VALUE.toDouble()) this.toLong() else null\n}\n\ninternal fun Float.toLongExactOrNull(): Long? {\n return if (this in Long.MIN\_VALUE.toFloat()..Long.MAX\_VALUE.toFloat()) this.toLong() else null\n}\n\ninternal fun Int.toShortExactOrNull(): Short? {\n return if (this in Short.MIN\_VALUE.toInt()..Short.MAX\_VALUE.toInt()) this.toShort() else null\n}\n\ninternal fun Long.toShortExactOrNull(): Short? {\n return if (this in Short.MIN\_VALUE.toLong()..Short.MAX\_VALUE.toLong()) this.toShort() else null\n}\n\ninternal fun Double.toShortExactOrNull(): Short? {\n return if (this in Short.MIN\_VALUE.toDouble()..Short.MAX\_VALUE.toDouble()) this.toInt().toShort() else null\n}\n\ninternal fun Float.toShortExactOrNull(): Short? {\n return if (this in Short.MIN\_VALUE.toFloat()..Short.MAX\_VALUE.toFloat()) this.toInt().toShort() else null\n}\n\n\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Int.until(to: Byte): IntRange {\n return this .. (to.toInt() - 1).toInt()\n}\n\n\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Long.until(to: Byte): LongRange {\n return this .. (to.toLong() - 1).toLong()\n}\n\n\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Byte.until(to: Byte): IntRange {\n return this.toInt() .. (to.toInt() - 1).toInt()\n}\n\n\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Short.until(to: Byte): IntRange {\n return this.toInt() .. (to.toInt() - 1).toInt()\n}\n\n\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Char.until(to: Char): CharRange {\n if (to <= '\u0000') return CharRange.EMPTY\n return this .. (to - 1).toChar()\n}\n\n\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Int.until(to: Int): IntRange {\n if (to <= Int.MIN\_VALUE) return IntRange.EMPTY\n return this .. (to - 1).toInt()\n}\n\n\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Long.until(to: Int): LongRange {\n return this .. (to.toLong() - 1).toLong()\n}\n\n\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Byte.until(to: Int): IntRange {\n if (to <= Int.MIN\_VALUE) return IntRange.EMPTY\n return this.toInt() .. (to - 1).toInt()\n}\n\n\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Short.until(to: Int): IntRange {\n if (to <= Int.MIN\_VALUE) return IntRange.EMPTY\n return this.toInt() .. (to - 1).toInt()\n}\n\n\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Int.until(to: Long): LongRange {\n if (to <= Long.MIN\_VALUE) return LongRange.EMPTY\n return this.toLong() .. (to - 1).toLong()\n}\n\n\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Long.until(to: Long): LongRange {\n if (to <= Long.MIN\_VALUE) return LongRange.EMPTY\n return this .. (to - 1).toLong()\n}\n\n\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Byte.until(to: Long): LongRange {\n if (to <= Long.MIN\_VALUE) return LongRange.EMPTY\n return this.toLong() .. (to - 1).toLong()\n}\n\n\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to

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`this` value, then the returned range is empty.\n */\npublic infix fun Short.until(to: Long): LongRange {\n    if (to <=
Long.MIN_VALUE) return LongRange.EMPTY\n    return this.toLong()
.. (to - 1).toLong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n *
* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun
Int.until(to: Short): IntRange {\n    return this .. (to.toInt() - 1).toInt()\n}\n\n/**\n * Returns a range from this value
up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the
returned range is empty.\n */\npublic infix fun Long.until(to: Short): LongRange {\n    return this .. (to.toLong() -
1).toLong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the
[to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Byte.until(to:
Short): IntRange {\n    return this.toInt() .. (to.toInt() - 1).toInt()\n}\n\n/**\n * Returns a range from this value up to
but excluding the specified
[to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n
*/\npublic infix fun Short.until(to: Short): IntRange {\n    return this.toInt() .. (to.toInt() - 1).toInt()\n}\n\n/**\n *
Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than
or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample
samples.comparisons.ComparableOps.coerceAtLeastComparable\n */\npublic fun <T : Comparable<T>>
T.coerceAtLeast(minimumValue: T): T {\n    return if (this < minimumValue) minimumValue else this\n}\n\n/**\n *
Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater
than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample
samples.comparisons.ComparableOps.coerceAtLeast\n */\npublic fun Byte.coerceAtLeast(minimumValue: Byte):
Byte {\n    return if (this < minimumValue) minimumValue
else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this
value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample
samples.comparisons.ComparableOps.coerceAtLeast\n */\npublic fun Short.coerceAtLeast(minimumValue: Short):
Short {\n    return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less
than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue]
or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeast\n
*/\npublic fun Int.coerceAtLeast(minimumValue: Int): Int {\n    return if (this < minimumValue) minimumValue
else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this
value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample
samples.comparisons.ComparableOps.coerceAtLeast\n */\npublic fun Long.coerceAtLeast(minimumValue: Long):
Long {\n    return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less
than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue]
or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeast\n
*/\npublic fun Float.coerceAtLeast(minimumValue: Float): Float {\n    return if (this < minimumValue)
minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n *
@return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n *
@sample samples.comparisons.ComparableOps.coerceAtLeast\n */\npublic fun
Double.coerceAtLeast(minimumValue: Double): Double {\n    return if (this < minimumValue) minimumValue else
this\n}\n\n/**\n * Ensures that this value
is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the
[maximumValue] or the [maximumValue] otherwise.\n * \n * @sample
samples.comparisons.ComparableOps.coerceAtMostComparable\n */\npublic fun <T : Comparable<T>>
T.coerceAtMost(maximumValue: T): T {\n    return if (this > maximumValue) maximumValue else this\n}\n\n/**\n *
Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less
than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample
samples.comparisons.ComparableOps.coerceAtMost\n */\npublic fun Byte.coerceAtMost(maximumValue: Byte):
Byte {\n    return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not

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greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the
[maximumValue] or the [maximumValue] otherwise.\n * \n * @sample
samples.comparisons.ComparableOps.coerceAtMost\n
*/\npublic fun Short.coerceAtMost(maximumValue: Short): Short {\n    return if (this > maximumValue)
maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n *
\n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n *
\n * @sample samples.comparisons.ComparableOps.coerceAtMost\n */\npublic fun Int.coerceAtMost(maximumValue:
Int): Int {\n    return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not
greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the
[maximumValue] or the [maximumValue] otherwise.\n * \n * @sample
samples.comparisons.ComparableOps.coerceAtMost\n */\npublic fun Long.coerceAtMost(maximumValue: Long):
Long {\n    return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not
greater than the specified [maximumValue].\n *
\n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n *
\n * @sample samples.comparisons.ComparableOps.coerceAtMost\n */\npublic fun
Float.coerceAtMost(maximumValue: Float): Float {\n    return if (this > maximumValue) maximumValue else
this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this
value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample
samples.comparisons.ComparableOps.coerceAtMost\n */\npublic fun Double.coerceAtMost(maximumValue:
Double): Double {\n    return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this
value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range,
or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than
[maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceInComparable\n
*/\npublic fun <T : Comparable<T>> T.coerceIn(minimumValue: T?, maximumValue: T?): T {\n    if
(minimumValue != null && maximumValue != null) {\n        if (minimumValue > maximumValue) throw
IllegalArgumentException("Cannot coerce value to an empty range: maximum $maximumValue is less than
minimum $minimumValue.")\n        if (this < minimumValue) return minimumValue\n        if (this >
maximumValue) return maximumValue\n    }\n    else {\n        if (minimumValue != null && this <
minimumValue) return minimumValue\n        if (maximumValue != null && this > maximumValue) return
maximumValue\n    }\n    return this\n}\n\n/**\n * Ensures that this value lies in the specified range
[minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value
is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample
samples.comparisons.ComparableOps.coerceIn\n */\npublic
fun Byte.coerceIn(minimumValue: Byte, maximumValue: Byte): Byte {\n    if (minimumValue > maximumValue)
throw IllegalArgumentException("Cannot coerce value to an empty range: maximum $maximumValue is less than
minimum $minimumValue.")\n    if (this < minimumValue) return minimumValue\n    if (this > maximumValue)
return maximumValue\n    return this\n}\n\n/**\n * Ensures that this value lies in the specified range
[minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value
is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample
samples.comparisons.ComparableOps.coerceIn\n */\npublic fun Short.coerceIn(minimumValue: Short,
maximumValue: Short): Short {\n    if (minimumValue > maximumValue) throw
IllegalArgumentException("Cannot coerce value to an empty range: maximum $maximumValue is less than
minimum $minimumValue.")\n    if (this < minimumValue) return minimumValue\n
    if (this > maximumValue) return maximumValue\n    return this\n}\n\n/**\n * Ensures that this value lies in the
specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or
[minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than
[maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceIn\n */\npublic fun
Int.coerceIn(minimumValue: Int, maximumValue: Int): Int {\n    if (minimumValue > maximumValue) throw

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IllegalArgumentException("Cannot coerce value to an empty range: maximum $maximumValue is less than
minimum $minimumValue.")\n  if (this < minimumValue) return minimumValue\n  if (this > maximumValue)
return maximumValue\n  return this\n}\n\n/**\n * Ensures that this value lies in the specified range
[minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value
is less than [minimumValue], or [maximumValue] if this value
is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceIn\n */\npublic fun
Long.coerceIn(minimumValue: Long, maximumValue: Long): Long {\n  if (minimumValue > maximumValue)
throw IllegalArgumentException("Cannot coerce value to an empty range: maximum $maximumValue is less than
minimum $minimumValue.")\n  if (this < minimumValue) return minimumValue\n  if (this > maximumValue)
return maximumValue\n  return this\n}\n\n/**\n * Ensures that this value lies in the specified range
[minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value
is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample
samples.comparisons.ComparableOps.coerceIn\n */\npublic fun Float.coerceIn(minimumValue: Float,
maximumValue: Float): Float {\n  if (minimumValue > maximumValue) throw
IllegalArgumentException("Cannot coerce value to an empty range: maximum $maximumValue
is less than minimum $minimumValue.")\n  if (this < minimumValue) return minimumValue\n  if (this >
maximumValue) return maximumValue\n  return this\n}\n\n/**\n * Ensures that this value lies in the specified
range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this
value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n *
@sample samples.comparisons.ComparableOps.coerceIn\n */\npublic fun Double.coerceIn(minimumValue:
Double, maximumValue: Double): Double {\n  if (minimumValue > maximumValue) throw
IllegalArgumentException("Cannot coerce value to an empty range: maximum $maximumValue is less than
minimum $minimumValue.")\n  if (this < minimumValue) return minimumValue\n  if (this > maximumValue)
return maximumValue\n  return this\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n *
@return this value if it's in the [range], or `range.start`
if this value is less than `range.start`, or `range.endInclusive` if this value is greater than `range.endInclusive`.\n * \n *
@sample samples.comparisons.ComparableOps.coerceInFloatingPointRange\n */\n@SinceKotlin("1.1")\npublic
fun <T : Comparable<T>> T.coerceIn(range: ClosedFloatingPointRange<T>): T {\n  if (range.isEmpty()) throw
IllegalArgumentException("Cannot coerce value to an empty range: $range.")\n  return when {\n    // this <
start equiv to this <= start && !(this >= start)\n    range.lessThanOrEqualTo(this, range.start) &&
!range.lessThanOrEqualTo(range.start, this) -> range.start\n    // this > end equiv to this >= end && !(this <= end)\n
range.lessThanOrEqualTo(range.endInclusive, this) && !range.lessThanOrEqualTo(this, range.endInclusive) ->
range.endInclusive\n    else -> this\n  }\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n *
@return this value if it's in the [range], or `range.start` if this value
is less than `range.start`, or `range.endInclusive` if this value is greater than `range.endInclusive`.\n * \n *
@sample samples.comparisons.ComparableOps.coerceInComparable\n */\npublic fun <T : Comparable<T>>
T.coerceIn(range: ClosedRange<T>): T {\n  if (range is ClosedFloatingPointRange) {\n    return
this.coerceIn<T>(range)\n  }\n  if (range.isEmpty()) throw IllegalArgumentException("Cannot coerce value to an
empty range: $range.")\n  return when {\n    this < range.start -> range.start\n    this > range.endInclusive ->
range.endInclusive\n    else -> this\n  }\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n *
@return this value if it's in the [range], or `range.start` if this value is less than `range.start`, or `range.endInclusive`
if this value is greater than `range.endInclusive`.\n * \n * @sample samples.comparisons.ComparableOps.coerceIn\n
*/\npublic fun Int.coerceIn(range: ClosedRange<Int>): Int {\n  if (range is
ClosedFloatingPointRange) {\n    return this.coerceIn<Int>(range)\n  }\n  if (range.isEmpty()) throw
IllegalArgumentException("Cannot coerce value to an empty range: $range.")\n  return when {\n    this <
range.start -> range.start\n    this > range.endInclusive -> range.endInclusive\n    else -> this\n  }\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n *
@return this value if it's in the [range], or `range.start` if
this value is less than `range.start`, or `range.endInclusive` if this value is greater than `range.endInclusive`.\n * \n *

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@sample samples.comparisons.ComparableOps.coerceIn\n *\npublic fun Long.coerceIn(range:
ClosedRange<Long>): Long {\n if (range is ClosedFloatingPointRange) {\n return
this.coerceIn<Long>(range)\n }\n if (range.isEmpty()) throw IllegalArgumentException("\nCannot coerce value
to an empty range: $range.\n")\n return when {\n this < range.start -> range.start\n this >
range.endInclusive\n else -> this\n }\n}\n\n", "/*\n * Copyright 2010-2023 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n *\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin\n\nimport
kotlin.experimental.*\nimport
kotlin.jvm.*\n\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@JvmInline\npu
blic value class UByte @kotlin.internal.IntrinsicConstEvaluation @PublishedApi internal
constructor(@PublishedApi internal val data: Byte) : Comparable<UByte> {\n\n companion object {\n /**\n
* A constant holding the minimum value an instance of UByte can have.\n *\n public const val
MIN_VALUE: UByte = UByte(0)\n\n /**\n * A constant holding the maximum value an instance of
UByte can have.\n *\n public const val MAX_VALUE: UByte = UByte(-1)\n\n /**\n * The number of bytes used to represent an instance of UByte in a binary form.\n *\n
public const val SIZE_BYTES: Int = 1\n\n /**\n * The number of bits used to represent an instance of
UByte in a binary form.\n *\n public const val SIZE_BITS: Int = 8\n }\n\n /**\n * Compares this
value with the specified value for order.\n * Returns zero if this value is equal to the specified other value, a
negative number if it's less than other,\n * or a positive number if it's greater than other.\n *\n
@kotlin.internal.InlineOnly\n @Suppress("OVERRIDE_BY_INLINE")\n public override inline operator fun
compareTo(other: UByte): Int = this.toInt().compareTo(other.toInt())\n\n /**\n * Compares this value with the
specified value for order.\n * Returns zero if this value is equal to the specified other value, a negative number if
it's less than other,\n * or a positive number if it's
greater than other.\n *\n @kotlin.internal.InlineOnly\n public inline operator fun compareTo(other: UShort):
Int = this.toInt().compareTo(other.toInt())\n\n /**\n * Compares this value with the specified value for order.\n
* Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n
* or a positive number if it's greater than other.\n *\n @kotlin.internal.InlineOnly\n public inline operator fun
compareTo(other: UInt): Int = this.toUInt().compareTo(other)\n\n /**\n * Compares this value with the
specified value for order.\n * Returns zero if this value is equal to the specified other value, a negative number if
it's less than other,\n * or a positive number if it's greater than other.\n *\n @kotlin.internal.InlineOnly\n
public inline operator fun compareTo(other: ULong): Int = this.toULong().compareTo(other)\n\n /** Adds the
other value to this value. *\n @kotlin.internal.InlineOnly\n
public inline operator fun plus(other: UByte): UInt = this.toUInt().plus(other.toUInt())\n\n /** Adds the other
value to this value. *\n @kotlin.internal.InlineOnly\n public inline operator fun plus(other: UShort): UInt =
this.toUInt().plus(other.toUInt())\n\n /** Adds the other value to this value. *\n @kotlin.internal.InlineOnly\n
public inline operator fun plus(other: UInt): UInt = this.toUInt().plus(other)\n\n /** Adds the other value to this
value. *\n @kotlin.internal.InlineOnly\n public inline operator fun plus(other: ULong): ULong =
this.toULong().plus(other)\n\n /** Subtracts the other value from this value. *\n @kotlin.internal.InlineOnly\n
public inline operator fun minus(other: UByte): UInt = this.toUInt().minus(other.toUInt())\n\n /** Subtracts the
other value from this value. *\n @kotlin.internal.InlineOnly\n public inline operator fun minus(other: UShort):
UInt = this.toUInt().minus(other.toUInt())\n\n /**
Subtracts the other value from this value. *\n @kotlin.internal.InlineOnly\n public inline operator fun
minus(other: UInt): UInt = this.toUInt().minus(other)\n\n /** Subtracts the other value from this value. *\n
@kotlin.internal.InlineOnly\n public inline operator fun minus(other: ULong): ULong =
this.toULong().minus(other)\n\n /** Multiplies this value by the other value. *\n @kotlin.internal.InlineOnly\n
public inline operator fun times(other: UByte): UInt = this.toUInt().times(other.toUInt())\n\n /** Multiplies this
value by the other value. *\n @kotlin.internal.InlineOnly\n public inline operator fun times(other: UShort): UInt

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= this.toUInt().times(other.toUInt())\n  /** Multiplies this value by the other value. */\n
@kotlin.internal.InlineOnly\n  public inline operator fun times(other: UInt): UInt = this.toUInt().times(other)\n
/** Multiplies this value by the other value. */\n  @kotlin.internal.InlineOnly\n  public inline operator
fun times(other: ULong): ULong = this.toULong().times(other)\n\n  /** Divides this value by the other value,
truncating the result to an integer that is closer to zero. */\n  @kotlin.internal.InlineOnly\n  public inline operator
fun div(other: UByte): UInt = this.toUInt().div(other.toUInt())\n  /** Divides this value by the other value,
truncating the result to an integer that is closer to zero. */\n  @kotlin.internal.InlineOnly\n  public inline operator
fun div(other: UShort): UInt = this.toUInt().div(other.toUInt())\n  /** Divides this value by the other value,
truncating the result to an integer that is closer to zero. */\n  @kotlin.internal.InlineOnly\n  public inline operator
fun div(other: UInt): UInt = this.toUInt().div(other)\n  /** Divides this value by the other value, truncating the
result to an integer that is closer to zero. */\n  @kotlin.internal.InlineOnly\n  public inline operator fun div(other:
ULong): ULong = this.toULong().div(other)\n\n  /**\n
   * Calculates the remainder of truncating division of this value by the other value.\n
   * \n
   * The result is
always less than the divisor.\n
   */\n  @kotlin.internal.InlineOnly\n  public inline operator fun rem(other:
UByte): UInt = this.toUInt().rem(other.toUInt())\n  /**\n
   * Calculates the remainder of truncating division of
this value by the other value.\n
   * \n
   * The result is always less than the divisor.\n
   */\n  @kotlin.internal.InlineOnly\n  public inline operator fun rem(other: UShort): UInt =
this.toUInt().rem(other.toUInt())\n  /**\n
   * Calculates the remainder of truncating division of this value by the
other value.\n
   * \n
   * The result is always less than the divisor.\n
   */\n  @kotlin.internal.InlineOnly\n  public
inline operator fun rem(other: UInt): UInt = this.toUInt().rem(other)\n  /**\n
   * Calculates the remainder of
truncating division of this value by the other value.\n
   * \n
   * The result is always
less than the divisor.\n
   */\n  @kotlin.internal.InlineOnly\n  public inline operator fun rem(other: ULong):
ULong = this.toULong().rem(other)\n\n  /**\n
   * Divides this value by the other value, flooring the result to an
integer that is closer to negative infinity.\n
   * \n
   * For unsigned types, the results of flooring division and
truncating division are the same.\n
   */\n  @kotlin.internal.InlineOnly\n  public inline fun floorDiv(other:
UByte): UInt = this.toUInt().floorDiv(other.toUInt())\n  /**\n
   * Divides this value by the other value, flooring
the result to an integer that is closer to negative infinity.\n
   * \n
   * For unsigned types, the results of flooring
division and truncating division are the same.\n
   */\n  @kotlin.internal.InlineOnly\n  public inline fun
floorDiv(other: UShort): UInt = this.toUInt().floorDiv(other.toUInt())\n  /**\n
   * Divides this value by the other
value, flooring the result to an integer that is closer
to negative infinity.\n
   * \n
   * For unsigned types, the results of flooring division and truncating division are the
same.\n
   */\n  @kotlin.internal.InlineOnly\n  public inline fun floorDiv(other: UInt): UInt =
this.toUInt().floorDiv(other)\n  /**\n
   * Divides this value by the other value, flooring the result to an integer that
is closer to negative infinity.\n
   * \n
   * For unsigned types, the results of flooring division and truncating division
are the same.\n
   */\n  @kotlin.internal.InlineOnly\n  public inline fun floorDiv(other: ULong): ULong =
this.toULong().floorDiv(other)\n\n  /**\n
   * Calculates the remainder of flooring division of this value by the
other value.\n
   * \n
   * The result is always less than the divisor.\n
   * \n
   * For unsigned types, the remainders
of flooring division and truncating division are the same.\n
   */\n  @kotlin.internal.InlineOnly\n  public inline
fun mod(other: UByte): UByte = this.toUInt().mod(other.toUInt()).toUByte()\n
  /**\n
   * Calculates the remainder of flooring division of this value by the other value.\n
   * \n
   * The result is
always less than the divisor.\n
   * \n
   * For unsigned types, the remainders of flooring division and truncating
division are the same.\n
   */\n  @kotlin.internal.InlineOnly\n  public inline fun mod(other: UShort): UShort =
this.toUInt().mod(other.toUInt()).toUShort()\n  /**\n
   * Calculates the remainder of flooring division of this
value by the other value.\n
   * \n
   * The result is always less than the divisor.\n
   * \n
   * For unsigned types, the
remainders of flooring division and truncating division are the same.\n
   */\n  @kotlin.internal.InlineOnly\n
public inline fun mod(other: UInt): UInt = this.toUInt().mod(other)\n  /**\n
   * Calculates the remainder of
flooring division of this value by the other value.\n
   * \n
   * The result is always less than the divisor.\n
   * \n
   * For unsigned
   */

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types, the remainders of flooring division and truncating division are the same.\n    */\n
@kotlin.internal.InlineOnly\n    public inline fun mod(other: ULong): ULong = this.toULong().mod(other)\n\n
/**\n    * Returns this value incremented by one.\n    */\n    * @sample samples.misc.Builtins.inc\n    */\n
@kotlin.internal.InlineOnly\n    public inline operator fun inc(): UByte = UByte(data.inc())\n\n    /**\n    * Returns
this value decremented by one.\n    */\n    * @sample samples.misc.Builtins.dec\n    */\n
@kotlin.internal.InlineOnly\n    public inline operator fun dec(): UByte = UByte(data.dec())\n\n    /** Creates a
range from this value to the specified [other] value. */\n    @kotlin.internal.InlineOnly\n    public inline operator fun
rangeTo(other: UByte): UIntRange = UIntRange(this.toUInt(), other.toUInt())\n\n    /**\n    * Creates a range from
this value up to but excluding the specified [other] value.\n    */\n    * If the [other] value is less
than or equal to `this` value, then the returned range is empty.\n    */\n    @SinceKotlin("1.7")\n
@ExperimentalStdlibApi\n    @kotlin.internal.InlineOnly\n    public inline operator fun rangeUntil(other: UByte):
UIntRange = this.toUInt() until other.toUInt()\n\n    /** Performs a bitwise AND operation between the two values.
*/\n    @kotlin.internal.InlineOnly\n    public inline infix fun and(other: UByte): UByte = UByte(this.data and
other.data)\n\n    /** Performs a bitwise OR operation between the two values. */\n    @kotlin.internal.InlineOnly\n
public inline infix fun or(other: UByte): UByte = UByte(this.data or other.data)\n\n    /** Performs a bitwise XOR
operation between the two values. */\n    @kotlin.internal.InlineOnly\n    public inline infix fun xor(other: UByte):
UByte = UByte(this.data xor other.data)\n\n    /** Inverts the bits in this value. */\n    @kotlin.internal.InlineOnly\n
public inline fun inv(): UByte = UByte(data.inv())\n\n    /**\n    * Converts this
[UByte] value to [Byte].\n    */\n    * If this value is less than or equals to [Byte.MAX_VALUE], the resulting
`Byte` value represents\n    * the same numerical value as this `UByte`. Otherwise the result is negative.\n    */\n
    * The resulting `Byte` value has the same binary representation as this `UByte` value.\n    */\n
@kotlin.internal.InlineOnly\n    public inline fun toByte(): Byte = data\n\n    /**\n    * Converts this [UByte] value to
[Short].\n    */\n    * The resulting `Short` value represents the same numerical value as this `UByte`.\n    */\n
    * The least significant 8 bits of the resulting `Short` value are the same as the bits of this `UByte` value,\n
    * whereas the most significant 8 bits are filled with zeros.\n    */\n    @kotlin.internal.InlineOnly\n    public inline fun
toShort(): Short = data.toShort() and 0xFF\n\n    /**\n    * Converts this [UByte] value to [Int].\n    */\n
    * The resulting `Int` value represents the same numerical value as
this `UByte`.\n    */\n    * The least significant 8 bits of the resulting `Int` value are the same as the bits of this
`UByte` value,\n    * whereas the most significant 24 bits are filled with zeros.\n    */\n
@kotlin.internal.InlineOnly\n    public inline fun toInt(): Int = data.toInt() and 0xFF\n\n    /**\n    * Converts this
[UByte] value to [Long].\n    */\n    * The resulting `Long` value represents the same numerical value as this
`UByte`.\n    */\n    * The least significant 8 bits of the resulting `Long` value are the same as the bits of this
`UByte` value,\n    * whereas the most significant 56 bits are filled with zeros.\n    */\n
@kotlin.internal.InlineOnly\n    public inline fun toLong(): Long = data.toLong() and 0xFF\n\n    /** Returns this
value. */\n    @kotlin.internal.InlineOnly\n    public inline fun toUByte(): UByte = this\n\n    /**\n    * Converts this
[UByte] value to [UShort].\n    */\n    * The resulting `UShort` value represents the same numerical
value as this `UByte`.\n    */\n    * The least significant 8 bits of the resulting `UShort` value are the same as the
bits of this `UByte` value,\n    * whereas the most significant 8 bits are filled with zeros.\n    */\n
@kotlin.internal.InlineOnly\n    public inline fun toUShort(): UShort = UShort(data.toShort() and 0xFF)\n\n    /**\n
    * Converts this [UByte] value to [UInt].\n    */\n    * The resulting `UInt` value represents the same numerical value
as this `UByte`.\n    */\n    * The least significant 8 bits of the resulting `UInt` value are the same as the bits of this
`UByte` value,\n    * whereas the most significant 24 bits are filled with zeros.\n    */\n
@kotlin.internal.InlineOnly\n    public inline fun toUInt(): UInt = UInt(data.toInt() and 0xFF)\n\n    /**\n
    * Converts this [UByte] value to [ULong].\n    */\n    * The resulting `ULong` value represents the same numerical
value as this `UByte`.\n    */\n    * The least significant 8 bits of the resulting
`ULong` value are the same as the bits of this `UByte` value,\n    * whereas the most significant 56 bits are filled
with zeros.\n    */\n    @kotlin.internal.InlineOnly\n    public inline fun toULong(): ULong = ULong(data.toLong()
and 0xFF)\n\n    /**\n    * Converts this [UByte] value to [Float].\n    */\n    * The resulting `Float` value represents

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negative number if it's less than other,\n * or a positive number if it's greater than other.\n */\n
@kotlin.internal.InlineOnly\n public inline operator fun compareTo(other: ULong): Int =
this.toULong().compareTo(other)\n\n /** Adds the other value to this value. */\n @kotlin.internal.InlineOnly\n
public inline operator fun plus(other: UByte): UInt = this.plus(other.toUInt())\n /** Adds the other value to this
value. */\n @kotlin.internal.InlineOnly\n public inline operator fun plus(other: UShort): UInt =
this.plus(other.toUInt())\n /** Adds the other value to this value. */\n @kotlin.internal.InlineOnly\n
public inline operator fun plus(other: UInt): UInt = UInt(this.data.plus(other.data))\n /** Adds the other value to
this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun plus(other: ULong): ULong =
this.toULong().plus(other)\n\n /** Subtracts the other value from this value. */\n @kotlin.internal.InlineOnly\n
public inline operator fun minus(other: UByte): UInt = this.minus(other.toUInt())\n /** Subtracts the other value
from this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun minus(other: UShort): UInt =
this.minus(other.toUInt())\n /** Subtracts the other value from this value. */\n @kotlin.internal.InlineOnly\n
public inline operator fun minus(other: UInt): UInt = UInt(this.data.minus(other.data))\n /** Subtracts the other
value from this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun minus(other: ULong): ULong
= this.toULong().minus(other)\n\n /** Multiplies this value
by the other value. */\n @kotlin.internal.InlineOnly\n public inline operator fun times(other: UByte): UInt =
this.times(other.toUInt())\n /** Multiplies this value by the other value. */\n @kotlin.internal.InlineOnly\n
public inline operator fun times(other: UShort): UInt = this.times(other.toUInt())\n /** Multiplies this value by the
other value. */\n @kotlin.internal.InlineOnly\n public inline operator fun times(other: UInt): UInt =
UInt(this.data.times(other.data))\n /** Multiplies this value by the other value. */\n
@kotlin.internal.InlineOnly\n public inline operator fun times(other: ULong): ULong =
this.toULong().times(other)\n\n /** Divides this value by the other value, truncating the result to an integer that is
closer to zero. */\n @kotlin.internal.InlineOnly\n public inline operator fun div(other: UByte): UInt =
this.div(other.toUInt())\n /** Divides this value by the other value, truncating the result to an integer that is closer
to zero. */\n @kotlin.internal.InlineOnly\n public inline operator fun div(other: UShort): UInt =
this.div(other.toUInt())\n /** Divides this value by the other value, truncating the result to an integer that is closer
to zero. */\n @kotlin.internal.InlineOnly\n public inline operator fun div(other: UInt): UInt = uintDivide(this,
other)\n /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n
@kotlin.internal.InlineOnly\n public inline operator fun div(other: ULong): ULong =
this.toULong().div(other)\n\n /**\n * Calculates the remainder of truncating division of this value by the other
value.\n * \n * The result is always less than the divisor.\n */\n @kotlin.internal.InlineOnly\n public
inline operator fun rem(other: UByte): UInt = this.rem(other.toUInt())\n /**\n * Calculates the remainder of
truncating division of this value by the other value.\n * \n * The result
is always less than the divisor.\n */\n @kotlin.internal.InlineOnly\n public inline operator fun rem(other:
UShort): UInt = this.rem(other.toUInt())\n /**\n * Calculates the remainder of truncating division of this value
by the other value.\n * \n * The result is always less than the divisor.\n */\n @kotlin.internal.InlineOnly\n
public inline operator fun rem(other: UInt): UInt = uintRemainder(this, other)\n /**\n * Calculates the
remainder of truncating division of this value by the other value.\n * \n * The result is always less than the
divisor.\n */\n @kotlin.internal.InlineOnly\n public inline operator fun rem(other: ULong): ULong =
this.toULong().rem(other)\n\n /**\n * Divides this value by the other value, flooring the result to an integer that
is closer to negative infinity.\n * \n * For unsigned types, the results of flooring division and truncating division
are the same.\n */\n @kotlin.internal.InlineOnly\n
public inline fun floorDiv(other: UByte): UInt = this.floorDiv(other.toUInt())\n /**\n * Divides this value by
the other value, flooring the result to an integer that is closer to negative infinity.\n * \n * For unsigned types,
the results of flooring division and truncating division are the same.\n */\n @kotlin.internal.InlineOnly\n
public inline fun floorDiv(other: UShort): UInt = this.floorDiv(other.toUInt())\n /**\n * Divides this value by
the other value, flooring the result to an integer that is closer to negative infinity.\n * \n * For unsigned types,
the results of flooring division and truncating division are the same.\n */\n @kotlin.internal.InlineOnly\n

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public inline fun floorDiv(other: UInt): UInt = div(other)\n /**\n * Divides this value by the other value,
flooring the result to an integer that is closer to negative infinity.\n *\n * For unsigned types, the results of
flooring division and
truncating division are the same.\n */\n @kotlin.internal.InlineOnly\n public inline fun floorDiv(other:
ULong): ULong = this.toULong().floorDiv(other)\n\n /**\n * Calculates the remainder of flooring division of
this value by the other value.\n *\n * The result is always less than the divisor.\n *\n * For unsigned
types, the remainders of flooring division and truncating division are the same.\n */\n
@kotlin.internal.InlineOnly\n public inline fun mod(other: UByte): UByte = this.mod(other.toUInt()).toUByte()\n
/**\n * Calculates the remainder of flooring division of this value by the other value.\n *\n * The result is
always less than the divisor.\n *\n * For unsigned types, the remainders of flooring division and truncating
division are the same.\n */\n @kotlin.internal.InlineOnly\n public inline fun mod(other: UShort): UShort =
this.mod(other.toUInt()).toUShort()\n /**\n * Calculates the remainder
of flooring division of this value by the other value.\n *\n * The result is always less than the divisor.\n *\n
* For unsigned types, the remainders of flooring division and truncating division are the same.\n */\n
@kotlin.internal.InlineOnly\n public inline fun mod(other: UInt): UInt = rem(other)\n /**\n * Calculates the
remainder of flooring division of this value by the other value.\n *\n * The result is always less than the
divisor.\n *\n * For unsigned types, the remainders of flooring division and truncating division are the same.\n
*/\n @kotlin.internal.InlineOnly\n public inline fun mod(other: ULong): ULong =
this.toULong().mod(other)\n\n /**\n * Returns this value incremented by one.\n *\n * @sample
samples.misc.Builtins.inc\n */\n @kotlin.internal.InlineOnly\n public inline operator fun inc(): UInt =
UInt(data.inc())\n\n /**\n * Returns this value decremented by one.\n *\n
* @sample samples.misc.Builtins.dec\n */\n @kotlin.internal.InlineOnly\n public inline operator fun dec():
UInt = UInt(data.dec())\n\n /**\n * Creates a range from this value to the specified [other] value. */\n
@kotlin.internal.InlineOnly\n public inline operator fun rangeTo(other: UInt): UIntRange = UIntRange(this,
other)\n\n /**\n * Creates a range from this value up to but excluding the specified [other] value.\n *\n * If
the [other] value is less than or equal to `this` value, then the returned range is empty.\n */\n
@SinceKotlin("1.7")\n @ExperimentalStdlibApi\n @kotlin.internal.InlineOnly\n public inline operator fun
rangeUntil(other: UInt): UIntRange = this until other\n\n /**\n * Shifts this value left by the [bitCount] number
of bits.\n *\n * Note that only the five lowest-order bits of the [bitCount] are used as the shift distance.\n *
The shift distance actually used is therefore always in the range `0..31`.\n
*/\n @kotlin.internal.InlineOnly\n public inline infix fun shl(bitCount: Int): UInt = UInt(data shl
bitCount)\n\n /**\n * Shifts this value right by the [bitCount] number of bits, filling the leftmost bits with
zeros.\n *\n * Note that only the five lowest-order bits of the [bitCount] are used as the shift distance.\n *
The shift distance actually used is therefore always in the range `0..31`.\n */\n @kotlin.internal.InlineOnly\n
public inline infix fun shr(bitCount: Int): UInt = UInt(data ushr bitCount)\n\n /**\n * Performs a bitwise AND
operation between the two values. */\n @kotlin.internal.InlineOnly\n public inline infix fun and(other: UInt):
UInt = UInt(this.data and other.data)\n\n /**\n * Performs a bitwise OR operation between the two values. */\n
@kotlin.internal.InlineOnly\n public inline infix fun or(other: UInt): UInt = UInt(this.data or other.data)\n\n
/**\n * Performs a bitwise XOR operation between the two values. */\n
@kotlin.internal.InlineOnly\n public inline infix fun xor(other: UInt): UInt = UInt(this.data xor other.data)\n\n
/**\n * Inverts the bits in this value. */\n @kotlin.internal.InlineOnly\n public inline fun inv(): UInt =
UInt(data.inv())\n\n /**\n * Converts this [UInt] value to [Byte].\n *\n * If this value is less than or equals
to [Byte.MAX_VALUE], the resulting `Byte` value represents\n * the same numerical value as this `UInt`.\n
*\n * The resulting `Byte` value is represented by the least significant 8 bits of this `UInt` value.\n * Note that
the resulting `Byte` value may be negative.\n */\n @kotlin.internal.InlineOnly\n public inline fun toByte():
Byte = data.toByte()\n\n /**\n * Converts this [UInt] value to [Short].\n *\n * If this value is less than or
equals to [Short.MAX_VALUE], the resulting `Short` value represents\n * the same numerical value as this
`UInt`.\n *\n * The resulting `Short` value is represented

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by the least significant 16 bits of this `UInt` value.  
 \* Note that the resulting `Short` value may be negative.  
 \*  
 @kotlin.internal.InlineOnly  
 public inline fun toShort(): Short = data.toShort()  
 /\*\*  
 \* Converts this [UInt] value to [Int].  
 \*  
 \* If this value is less than or equals to [Int.MAX\_VALUE], the resulting `Int` value represents  
 \* the same numerical value as this `UInt`. Otherwise the result is negative.  
 \*  
 \* The resulting `Int` value has the same binary representation as this `UInt` value.  
 \*  
 @kotlin.internal.InlineOnly  
 public inline fun toInt(): Int = data  
 /\*\*  
 \* Converts this [UInt] value to [Long].  
 \*  
 \* The resulting `Long` value represents the same numerical value as this `UInt`.  
 \*  
 \* The least significant 32 bits of the resulting `Long` value are the same as the bits of this `UInt` value,  
 \* whereas the most significant 32 bits are filled with zeros.  
 \*  
 @kotlin.internal.InlineOnly  
 public inline fun toLong(): Long = data.toLong() and 0xFFFF\_FFFF  
 /\*\*  
 \* Converts this [UInt] value to [UByte].  
 \*  
 \* If this value is less than or equals to [UByte.MAX\_VALUE], the resulting `UByte` value represents  
 \* the same numerical value as this `UInt`.  
 \*  
 \* The resulting `UByte` value is represented by the least significant 8 bits of this `UInt` value.  
 \*  
 @kotlin.internal.InlineOnly  
 public inline fun toUByte(): UByte = data.toUByte()  
 /\*\*  
 \* Converts this [UInt] value to [UShort].  
 \*  
 \* If this value is less than or equals to [UShort.MAX\_VALUE], the resulting `UShort` value represents  
 \* the same numerical value as this `UInt`.  
 \*  
 \* The resulting `UShort` value is represented by the least significant 16 bits of this `UInt` value.  
 \*  
 @kotlin.internal.InlineOnly  
 public inline fun toUShort(): UShort = data.toUShort()  
 /\*\* Returns  
 this value.  
 @kotlin.internal.InlineOnly  
 public inline fun toUInt(): UInt = this  
 /\*\*  
 \* Converts this [UInt] value to [ULong].  
 \*  
 \* The resulting `ULong` value represents the same numerical value as this `UInt`.  
 \*  
 \* The least significant 32 bits of the resulting `ULong` value are the same as the bits of this `UInt`  
 value,  
 \* whereas the most significant 32 bits are filled with zeros.  
 \*  
 @kotlin.internal.InlineOnly  
 public inline fun toULong(): ULong = ULong(data.toLong() and 0xFFFF\_FFFF)  
 /\*\*  
 \* Converts this [UInt] value to [Float].  
 \*  
 \* The resulting value is the closest `Float` to this `UInt` value.  
 \*  
 \* In case when this `UInt` value is exactly between two `Float`s,  
 \* the one with zero at least significant bit of mantissa is selected.  
 \*  
 @kotlin.internal.InlineOnly  
 public inline fun toFloat(): Float = this.toDouble().toFloat()  
 /\*\*  
 \* Converts this [UInt] value to [Double].  
 \*  
 \* The resulting `Double` value represents the same numerical value as this `UInt`.  
 \*  
 @kotlin.internal.InlineOnly  
 public inline fun toDouble(): Double = uintToDouble(data)  
 public override fun toString(): String = toLong().toString()  
 }  
 /\*\*  
 \* Converts this [Byte] value to [UInt].  
 \*  
 \* If this value is positive, the resulting `UInt` value represents the same numerical value as this `Byte`.  
 \*  
 \* The least significant 8 bits of the resulting `UInt` value are the same as the bits of this `Byte` value,  
 \* whereas the most significant 24 bits are filled with the sign bit of this value.  
 \*  
 @SinceKotlin("1.5")  
 @WasExperimental(ExperimentalUnsignedTypes::class)  
 @kotlin.internal.InlineOnly  
 public inline fun Byte.toUInt(): UInt = UInt(this.toInt())  
 /\*\*  
 \* Converts this [Short] value to [UInt].  
 \*  
 \* If this value is positive, the resulting `UInt` value represents the same numerical value as this `Short`.  
 \*  
 \* The least significant 16 bits of the resulting `UInt` value are the same as the bits of this `Short` value,  
 \* whereas the most significant 16 bits are filled with the sign bit of this value.  
 \*  
 @SinceKotlin("1.5")  
 @WasExperimental(ExperimentalUnsignedTypes::class)  
 @kotlin.internal.InlineOnly  
 public inline fun Short.toUInt(): UInt = UInt(this.toInt())  
 /\*\*  
 \* Converts this [Int] value to [UInt].  
 \*  
 \* If this value is positive, the resulting `UInt` value represents the same numerical value as this `Int`.  
 \*  
 \* The resulting `UInt` value has the same binary representation as this `Int` value.  
 \*  
 @SinceKotlin("1.5")  
 @WasExperimental(ExperimentalUnsignedTypes::class)  
 @kotlin.internal.InlineOnly  
 public inline fun Int.toUInt(): UInt = UInt(this)  
 /\*\*  
 \* Converts this [Long] value to [UInt].  
 \*  
 \* If this value is positive and less than or equals to [UInt.MAX\_VALUE], the resulting `UInt` value represents  
 \* the same numerical value as this `Long`.  
 \*  
 \* The resulting `UInt`

```

value is represented by the least significant 32 bits of this `Long` value.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\n
public inline fun Long.toUInt(): UInt = UInt(this.toInt())\n\n/**\n * Converts this [Float] value to [UInt].\n *\n * The fractional part, if any, is rounded down towards zero.\n * Returns zero if this `Float` value is negative or `NaN`,\n * [UInt.MAX_VALUE] if it's bigger than `UInt.MAX_VALUE`.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\n
public inline fun Float.toUInt(): UInt = doubleToUInt(this.toDouble())\n\n/**\n * Converts this [Double] value to\n * [UInt].\n *\n * The fractional part, if any, is rounded down towards zero.\n * Returns zero if this `Double` value is\n * negative or `NaN`, [UInt.MAX_VALUE] if it's bigger than `UInt.MAX_VALUE`.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\n
public\n
inline fun Double.toUInt(): UInt = doubleToUInt(this)\n","/*\n * Copyright 2010-2023 JetBrains s.r.o. and Kotlin\n * Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be\n * found in the license/LICENSE.txt file.\n *\n@n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin\n\nimport\n *kotlin.experimental.*\nimport\n *kotlin.jvm.*\n\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@JvmInline\npublic\n *value class UShort @kotlin.internal.IntrinsicConstEvaluation @PublishedApi internal\n *constructor(@PublishedApi internal val data: Short) : Comparable<UShort> {\n\n *companion object {\n\n */*\n * A constant holding the minimum value an instance of UShort can have.\n\n */*\n * public const val\n *MIN_VALUE: UShort = UShort(0)\n\n */*\n * A constant holding the maximum value an instance of\n *UShort can have.\n\n */*\n * public const val MAX_VALUE: UShort = UShort(-1)\n\n\n */*\n * The number of bytes used to represent an instance of UShort in a binary form.\n\n */*\n * public const val SIZE_BYTES: Int = 2\n\n */*\n * The number of bits used to represent an instance of\n *UShort in a binary form.\n\n */*\n * public const val SIZE_BITS: Int = 16\n\n\n */*\n * Compares this\n *value with the specified value for order.\n\n * Returns zero if this value is equal to the specified other value, a\n *negative number if it's less than other,\n\n * or a positive number if it's greater than other.\n\n */*\n * @kotlin.internal.InlineOnly\n * public inline operator fun compareTo(other: UByte): Int =\n *this.toInt().compareTo(other.toInt())\n\n */*\n * Compares this value with the specified value for order.\n\n * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n\n * or a\n *positive number if it's greater than other.\n\n */*\n * @kotlin.internal.InlineOnly\n\n * @Suppress("OVERRIDE_BY_INLINE")\n * public override inline operator fun compareTo(other: UShort): Int\n * = this.toInt().compareTo(other.toInt())\n\n */*\n * Compares this value with the specified value for order.\n\n * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n\n * or a\n *positive number if it's greater than other.\n\n */*\n * @kotlin.internal.InlineOnly\n\n * public inline operator fun\n *compareTo(other: UInt): Int = this.toUInt().compareTo(other)\n\n */*\n * Compares this value with the\n *specified value for order.\n\n * Returns zero if this value is equal to the specified other value, a negative number if\n *it's less than other,\n\n * or a positive number if it's greater than other.\n\n */*\n * @kotlin.internal.InlineOnly\n\n * public inline operator fun\n *compareTo(other: ULong): Int = this.toULong().compareTo(other)\n\n */*\n * Adds the\n *other value to this value.\n\n */*\n * @kotlin.internal.InlineOnly\n\n * public inline operator fun\n *plus(other: UByte): UInt = this.toUInt().plus(other.toUInt())\n\n */*\n * Adds the other\n *value to this value.\n\n */*\n * @kotlin.internal.InlineOnly\n\n * public inline operator fun\n *plus(other: UShort): UInt =\n *this.toUInt().plus(other.toUInt())\n\n */*\n * Adds the other value to this value.\n\n */*\n * @kotlin.internal.InlineOnly\n\n * public inline operator fun\n *plus(other: UInt): UInt = this.toUInt().plus(other)\n\n */*\n * Adds the other value to this\n *value.\n\n */*\n * @kotlin.internal.InlineOnly\n\n * public inline operator fun\n *plus(other: ULong): ULong =\n *this.toULong().plus(other)\n\n */*\n * Subtracts the other value from this value.\n\n */*\n * @kotlin.internal.InlineOnly\n\n * public inline operator fun\n *minus(other: UByte): UInt = this.toUInt().minus(other.toUInt())\n\n */*\n * Subtracts the\n *other value from this value.\n\n */*\n * @kotlin.internal.InlineOnly\n\n * public inline operator fun\n *minus(other: UShort):\n *UInt = this.toUInt().minus(other.toUInt())\n

```

```

/** Subtracts the other value from this value. */
@kotlin.internal.InlineOnly
public inline operator fun
minus(other: UInt): UInt = this.toUInt().minus(other)
/** Subtracts the other value from this value. */
@kotlin.internal.InlineOnly
public inline operator fun minus(other: ULong): ULong =
this.toULong().minus(other)
/** Multiplies this value by the other value. */
@kotlin.internal.InlineOnly
public inline operator fun times(other: UByte): UInt = this.toUInt().times(other.toUInt())
/** Multiplies this
value by the other value. */
@kotlin.internal.InlineOnly
public inline operator fun times(other: UShort): UInt
= this.toUInt().times(other.toUInt())
/** Multiplies this value by the other value. */
@kotlin.internal.InlineOnly
public inline operator fun times(other: UInt): UInt = this.toUInt().times(other)
/** Multiplies this value by the other value. */
@kotlin.internal.InlineOnly
public inline operator
fun times(other: ULong): ULong = this.toULong().times(other)
/** Divides this value by the other value,
truncating the result to an integer that is closer to zero. */
@kotlin.internal.InlineOnly
public inline operator
fun div(other: UByte): UInt = this.toUInt().div(other.toUInt())
/** Divides this value by the other value,
truncating the result to an integer that is closer to zero. */
@kotlin.internal.InlineOnly
public inline operator
fun div(other: UShort): UInt = this.toUInt().div(other.toUInt())
/** Divides this value by the other value,
truncating the result to an integer that is closer to zero. */
@kotlin.internal.InlineOnly
public inline operator
fun div(other: UInt): UInt = this.toUInt().div(other)
/** Divides this value by the other value, truncating the
result to an integer that is closer to zero. */
@kotlin.internal.InlineOnly
public inline operator fun div(other:
ULong): ULong = this.toULong().div(other)
/**
 * Calculates the remainder of truncating division of this value by the other value.
 * The result is
always less than the divisor.
 */
@kotlin.internal.InlineOnly
public inline operator fun rem(other:
UByte): UInt = this.toUInt().rem(other.toUInt())
/**
 * Calculates the remainder of truncating division of
this value by the other value.
 * The result is always less than the divisor.
 */
@kotlin.internal.InlineOnly
public inline operator fun rem(other: UShort): UInt =
this.toUInt().rem(other.toUInt())
/**
 * Calculates the remainder of truncating division of this value by the
other value.
 * The result is always less than the divisor.
 */
@kotlin.internal.InlineOnly
public
inline operator fun rem(other: UInt): UInt = this.toUInt().rem(other)
/**
 * Calculates the remainder of
truncating division of this value by the other value.
 * The result is always
less than the divisor.
 */
@kotlin.internal.InlineOnly
public inline operator fun rem(other: ULong):
ULong = this.toULong().rem(other)
/**
 * Divides this value by the other value, flooring the result to an
integer that is closer to negative infinity.
 * For unsigned types, the results of flooring division and
truncating division are the same.
 */
@kotlin.internal.InlineOnly
public inline fun floorDiv(other:
UByte): UInt = this.toUInt().floorDiv(other.toUInt())
/**
 * Divides this value by the other value, flooring
the result to an integer that is closer to negative infinity.
 * For unsigned types, the results of flooring
division and truncating division are the same.
 */
@kotlin.internal.InlineOnly
public inline fun
floorDiv(other: UShort): UInt = this.toUInt().floorDiv(other.toUInt())
/**
 * Divides this value by the other
value, flooring the result to an integer that is closer
to negative infinity.
 * For unsigned types, the results of flooring division and truncating division are the
same.
 */
@kotlin.internal.InlineOnly
public inline fun floorDiv(other: UInt): UInt =
this.toUInt().floorDiv(other)
/**
 * Divides this value by the other value, flooring the result to an integer that
is closer to negative infinity.
 * For unsigned types, the results of flooring division and truncating division
are the same.
 */
@kotlin.internal.InlineOnly
public inline fun floorDiv(other: ULong): ULong =
this.toULong().floorDiv(other)
/**
 * Calculates the remainder of flooring division of this value by the
other value.
 * The result is always less than the divisor.
 * For unsigned types, the remainders
of flooring division and truncating division are the same.
 */
@kotlin.internal.InlineOnly
public inline
fun mod(other: UByte): UByte = this.toUInt().mod(other.toUInt()).toUByte()
/**
 * Calculates the remainder of flooring division of this value by the other value.
 * The result is
always less than the divisor.
 * For unsigned types, the remainders of flooring division and truncating
division are the same.
 */
@kotlin.internal.InlineOnly
public inline fun mod(other: UShort): UShort =

```

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this.toUInt().mod(other.toUInt()).toUShort()\n /**\n * Calculates the remainder of flooring division of this
value by the other value.\n * \n * The result is always less than the divisor.\n * \n * For unsigned types, the
remainders of flooring division and truncating division are the same.\n * \n @kotlin.internal.InlineOnly\n
public inline fun mod(other: UInt): UInt = this.toUInt().mod(other)\n /**\n * Calculates the remainder of
flooring division of this value by the other value.\n * \n * The result is always less than the divisor.\n * \n
* For
unsigned types, the remainders of flooring division and truncating division are the same.\n * \n
@kotlin.internal.InlineOnly\n public inline fun mod(other: ULong): ULong = this.toULong().mod(other)\n\n
/**\n * Returns this value incremented by one.\n * \n * @sample samples.misc.Builtins.inc\n * \n
@kotlin.internal.InlineOnly\n public inline operator fun inc(): UShort = UShort(data.inc())\n\n /**\n *
Returns this value decremented by one.\n * \n * @sample samples.misc.Builtins.dec\n * \n
@kotlin.internal.InlineOnly\n public inline operator fun dec(): UShort = UShort(data.dec())\n\n /** Creates a
range from this value to the specified [other] value. *\n @kotlin.internal.InlineOnly\n public inline operator fun
rangeTo(other: UShort): UIntRange = UIntRange(this.toUInt(), other.toUInt())\n\n /**\n * Creates a range from
this value up to but excluding the specified [other] value.\n * \n * If the [other] value is
less than or equal to `this` value, then the returned range is empty.\n * \n @SinceKotlin("1.7")\n
@ExperimentalStdlibApi\n @kotlin.internal.InlineOnly\n public inline operator fun rangeUntil(other: UShort):
UIntRange = this.toUInt() until other.toUInt()\n\n /** Performs a bitwise AND operation between the two values.
*\n @kotlin.internal.InlineOnly\n public inline infix fun and(other: UShort): UShort = UShort(this.data and
other.data)\n\n /** Performs a bitwise OR operation between the two values. *\n @kotlin.internal.InlineOnly\n
public inline infix fun or(other: UShort): UShort = UShort(this.data or other.data)\n\n /** Performs a bitwise XOR
operation between the two values. *\n @kotlin.internal.InlineOnly\n public inline infix fun xor(other: UShort):
UShort = UShort(this.data xor other.data)\n\n /** Inverts the bits in this value. *\n @kotlin.internal.InlineOnly\n
public inline fun inv(): UShort = UShort(data.inv())\n\n /**\n
* Converts this [UShort] value to [Byte].\n * \n * If this value is less than or equals to [Byte.MAX_VALUE],
the resulting `Byte` value represents\n * the same numerical value as this `UShort`.\n * \n * The resulting
`Byte` value is represented by the least significant 8 bits of this `UShort` value.\n * Note that the resulting `Byte`
value may be negative.\n * \n @kotlin.internal.InlineOnly\n public inline fun toByte(): Byte = data.toByte()\n\n
/**\n * Converts this [UShort] value to [Short].\n * \n * If this value is less than or equals to
[Short.MAX_VALUE], the resulting `Short` value represents\n * the same numerical value as this `UShort` .
Otherwise the result is negative.\n * \n * The resulting `Short` value has the same binary representation as this
`UShort` value.\n * \n @kotlin.internal.InlineOnly\n public inline fun toShort(): Short = data\n\n /**\n *
Converts this [UShort] value to [Int].\n * \n
* The resulting `Int` value represents the same numerical value as this `UShort`.\n * \n * The least significant
16 bits of the resulting `Int` value are the same as the bits of this `UShort` value,\n * whereas the most significant
16 bits are filled with zeros.\n * \n @kotlin.internal.InlineOnly\n public inline fun toInt(): Int = data.toInt()
and 0xFFFF\n\n /**\n * Converts this [UShort] value to [Long].\n * \n * The resulting `Long` value
represents the same numerical value as this `UShort`.\n * \n * The least significant 16 bits of the resulting
`Long` value are the same as the bits of this `UShort` value,\n * whereas the most significant 48 bits are filled
with zeros.\n * \n @kotlin.internal.InlineOnly\n public inline fun toLong(): Long = data.toLong() and
0xFFFF\n\n /**\n * Converts this [UShort] value to [UByte].\n * \n * If this value is less than or equals to
[UByte.MAX_VALUE], the resulting `UByte` value represents\n
* the same numerical value as this `UShort`.\n * \n * The resulting `UByte` value is represented by the least
significant 8 bits of this `UShort` value.\n * \n @kotlin.internal.InlineOnly\n public inline fun toUByte():
UByte = data.toUByte()\n\n /** Returns this value. *\n @kotlin.internal.InlineOnly\n public inline fun
toUShort(): UShort = this\n\n /**\n * Converts this [UShort] value to [UInt].\n * \n * The resulting `UInt`
value represents the same numerical value as this `UShort`.\n * \n * The least significant 16 bits of the resulting
`UInt` value are the same as the bits of this `UShort` value,\n * whereas the most significant 16 bits are filled with

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zeros.\n *^n @kotlin.internal.InlineOnly\n public inline fun toUInt(): UInt = UInt(data.toInt() and 0xFFFF)\n /**\n * Converts this [UShort] value to [ULong].\n *^n * The resulting `ULong` value represents the same numerical value as this `UShort`.\n\n *^n * The least significant 16 bits of the resulting `ULong` value are the same as the bits of this `UShort` value,\n * whereas the most significant 48 bits are filled with zeros.\n *^n @kotlin.internal.InlineOnly\n public inline fun toULong(): ULong = ULong(data.toLong() and 0xFFFF)\n\n /**\n * Converts this [UShort] value to [Float].\n *^n * The resulting `Float` value represents the same numerical value as this `UShort`.\n\n *^n @kotlin.internal.InlineOnly\n public inline fun toFloat(): Float = this.toInt().toFloat()\n\n /**\n * Converts this [UShort] value to [Double].\n *^n * The resulting `Double` value represents the same numerical value as this `UShort`.\n\n *^n @kotlin.internal.InlineOnly\n public inline fun toDouble(): Double = this.toInt().toDouble()\n\n public override fun toString(): String = toInt().toString()\n}\n\n/**\n * Converts this [Byte] value to [UShort].\n *^n * If this value is positive, the resulting `UShort` value represents the same numerical value as this `Byte`.\n *^n * The least significant 8 bits of the resulting `UShort` value are the same as the bits of this `Byte` value,\n * whereas the most significant 8 bits are filled with the sign bit of this value.\n\n *^n @SinceKotlin("1.5")\n @WasExperimental(ExperimentalUnsignedTypes::class)\n @kotlin.internal.InlineOnly\n public inline fun Byte.toUShort(): UShort = UShort(this.toShort())\n\n /**\n * Converts this [Short] value to [UShort].\n *^n * If this value is positive, the resulting `UShort` value represents the same numerical value as this `Short`.\n *^n * The resulting `UShort` value has the same binary representation as this `Short` value.\n\n *^n @SinceKotlin("1.5")\n @WasExperimental(ExperimentalUnsignedTypes::class)\n @kotlin.internal.InlineOnly\n public inline fun Short.toUShort(): UShort = UShort(this)\n\n /**\n * Converts this [Int] value to [UShort].\n *^n * If this value is positive and less than or equals to [UShort.MAX_VALUE], the resulting `UShort` value represents\n * the same numerical value as this `Int`.\n *^n * The resulting `UShort` value is represented by the least significant 16 bits of this `Int` value.\n\n *^n @SinceKotlin("1.5")\n @WasExperimental(ExperimentalUnsignedTypes::class)\n @kotlin.internal.InlineOnly\n public inline fun Int.toUShort(): UShort = UShort(this.toShort())\n\n /**\n * Converts this [Long] value to [UShort].\n *^n * If this value is positive and less than or equals to [UShort.MAX_VALUE], the resulting `UShort` value represents\n * the same numerical value as this `Long`.\n *^n * The resulting `UShort` value is represented by the least significant 16 bits of this `Long` value.\n\n *^n @SinceKotlin("1.5")\n @WasExperimental(ExperimentalUnsignedTypes::class)\n @kotlin.internal.InlineOnly\n public inline fun Long.toUShort(): UShort = UShort(this.toShort())\n", "/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n\n *^n @file:kotlin.jvm.JvmMultifileClass\n @file:kotlin.jvm.JvmName("CollectionsKt")\n @file:OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n\n package kotlin.collections\n\n import kotlin.contracts.*\n import kotlin.random.Random\n\n internal object EmptyIterator : ListIterator<Nothing> {\n override fun hasNext(): Boolean = false\n override fun hasNextPrevious(): Boolean = false\n override fun nextIndex(): Int = 0\n override fun previousIndex(): Int = -1\n override fun next(): Nothing = throw NoSuchElementException()\n override fun previous(): Nothing = throw NoSuchElementException()\n}\n\n internal object EmptyList : List<Nothing>, Serializable, RandomAccess {\n private const val serialVersionUID: Long = -7390468764508069838L\n\n override fun equals(other: Any?): Boolean = other is List<*> && other.isEmpty()\n override fun hashCode(): Int = 1\n\n override fun toString(): String = "[]"\n\n override val size: Int get() = 0\n\n override fun isEmpty(): Boolean = true\n\n override fun contains(element: Nothing): Boolean = false\n\n override fun containsAll(elements: Collection<Nothing>): Boolean = elements.isEmpty()\n\n override fun get(index: Int): Nothing = throw IndexOutOfBoundsException("Empty list doesn't contain element at index $index.")\n\n override fun indexOf(element: Nothing): Int = -1\n\n override fun lastIndexOf(element: Nothing): Int = -1\n\n override fun iterator(): Iterator<Nothing> = EmptyIterator\n\n override fun listIterator(): ListIterator<Nothing> = EmptyIterator\n
```



```

    override fun listIterator(index: Int): ListIterator<Nothing> {
        if (index != 0) throw
        IndexOutOfBoundsException("Index: $index")
        return EmptyIterator
    }
    override fun
    subList(fromIndex: Int, toIndex: Int): List<Nothing> {
        if (fromIndex == 0 && toIndex == 0) return this
        throw IndexOutOfBoundsException("fromIndex:
        $fromIndex, toIndex: $toIndex")
    }
    private fun readResolve(): Any = EmptyList
}
internal fun <T>
Array<out T>.asCollection(): Collection<T> = ArrayAsCollection(this, isVarargs = false)
private class
ArrayAsCollection<T>(val values: Array<out T>, val isVarargs: Boolean) : Collection<T> {
    override val size:
    Int get() = values.size
    override fun isEmpty(): Boolean = values.isEmpty()
    override fun contains(element:
    T): Boolean = values.contains(element)
    override fun containsAll(elements: Collection<T>): Boolean =
    elements.all { contains(it) }
    override fun iterator(): Iterator<T> = values.iterator()
    // override hidden to Array
    implementation to prevent copying of values array
    public fun toArray(): Array<out Any?> =
    values.copyToArrayOfAny(isVarargs)
}
/**
 * Returns an empty read-only list. The returned list is
    serializable (JVM).
    @sample samples.collections.Collections.Lists.emptyReadOnlyList
    @public fun
    <T> emptyList(): List<T> = EmptyList
    /**
    * Returns a new read-only list of given elements. The returned list
    is serializable (JVM).
    @sample samples.collections.Collections.Lists.readOnlyList
    @public fun <T>
    listOf(vararg elements: T): List<T> = if (elements.size > 0) elements.asList() else emptyList()
    /**
    * Returns an
    empty read-only list. The returned list is serializable (JVM).
    @sample
    samples.collections.Collections.Lists.emptyReadOnlyList
    @kotlin.internal.InlineOnly
    @public inline fun <T>
    listOf(): List<T> = emptyList()
    /**
    * Returns an empty new [MutableList].
    @sample
    samples.collections.Collections.Lists.emptyMutableList
    @
    @SinceKotlin("1.1")
    @kotlin.internal.InlineOnly
    @public inline fun <T> mutableListOf(): MutableList<T> =
    ArrayList()
    /**
    * Returns an empty new [ArrayList].
    @sample
    samples.collections.Collections.Lists.emptyArrayList
    @
    @SinceKotlin("1.1")
    @kotlin.internal.InlineOnly
    @public inline fun <T> arrayListOf():
    ArrayList<T> = ArrayList()
    /**
    * Returns a new [MutableList] with the given elements.
    @sample
    samples.collections.Collections.Lists.mutableList
    @public fun <T> mutableListOf(vararg elements: T):
    MutableList<T> =
    if (elements.size == 0) ArrayList() else ArrayList(ArrayAsCollection(elements, isVarargs =
    true))
    /**
    * Returns a new [ArrayList] with the given elements.
    @sample
    samples.collections.Collections.Lists.arrayList
    @public fun <T> arrayListOf(vararg elements: T): ArrayList<T>
    =
    if (elements.size == 0) ArrayList() else ArrayList(ArrayAsCollection(elements, isVarargs = true))
    /**
    * Returns a new read-only list either of single given element, if it is not null, or empty list if the element is null. The
    returned list is serializable (JVM).
    @sample samples.collections.Collections.Lists.listOfNotNull
    @public fun
    <T : Any> listOfNotNull(element: T?): List<T> = if (element != null) listOf(element) else emptyList()
    /**
    * Returns
    a new read-only list only of those given elements, that are not null. The returned list is serializable (JVM).
    @sample samples.collections.Collections.Lists.listOfNotNull
    @public fun <T : Any> listOfNotNull(vararg
    elements: T?): List<T> = elements.filterNotNull()
    /**
    * Creates a new read-only list with the specified [size],
    where each element is calculated by calling the specified
    @sample samples.collections.Collections.Lists.readOnlyListFromInitializer
    @
    @SinceKotlin("1.1")
    @kotlin.internal.InlineOnly
    @public inline fun <T> List(size: Int, init: (index: Int) -> T):
    List<T> = MutableList(size, init)
    /**
    * Creates a new mutable list with the specified [size], where each element
    is calculated by calling the specified
    @sample samples.collections.Collections.Lists.mutableListFromInitializer
    @
    @SinceKotlin("1.1")
    @kotlin.internal.InlineOnly
    @public inline fun <T> MutableList(size: Int, init: (index:
    Int) -> T): MutableList<T> {
        val list = ArrayList<T>(size)
        repeat(size) { index -> list.add(init(index)) }
        return list
    }
    /**
    * Builds a new read-only [List] by populating a [MutableList] using the given

```

```

[builderAction])\n * and returning a read-only list with the same elements.\n *\n * The list passed as a receiver to the
[builderAction] is valid only inside that function.\n * Using it outside of the function produces an unspecified
behavior.\n *\n * The returned list is serializable (JVM).\n *\n * @sample
samples.collections.Builders.Lists.buildListSample\n
*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\n@Su
ppress("DEPRECATION")\npublic
inline fun <E> buildList(@BuilderInference builderAction: MutableList<E>().-> Unit): List<E> {\n contract {
callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n return
buildListInternal(builderAction)\n}\n\n@PublishedApi\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\ninter
nal expect inline fun <E> buildListInternal(builderAction: MutableList<E>().-> Unit): List<E>\n\n/**\n * Builds a
new read-only [List] by populating a [MutableList] using the given [builderAction]\n * and returning a read-only list
with the same elements.\n * The list passed as a receiver to the [builderAction] is valid only inside that
function.\n * Using it outside of the function produces an unspecified behavior.\n *\n * The returned list is
serializable (JVM).\n *\n * [capacity] is used to hint the expected number of elements added in the
[builderAction].\n *\n * @throws IllegalArgumentException if the given [capacity] is negative.\n
*\n * @sample samples.collections.Builders.Lists.buildListSampleWithCapacity\n
*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\n@Su
ppress("DEPRECATION")\npublic inline fun <E> buildList(capacity: Int, @BuilderInference builderAction:
MutableList<E>().-> Unit): List<E> {\n contract { callsInPlace(builderAction,
InvocationKind.EXACTLY_ONCE) }\n return buildListInternal(capacity,
builderAction)\n}\n\n@PublishedApi\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\ninternal expect inline
fun <E> buildListInternal(capacity: Int, builderAction: MutableList<E>().-> Unit): List<E>\n\n/**\n * Returns an
[IntRange] of the valid indices for this collection.\n * @sample
samples.collections.Collections.Collections.indicesOfCollection\n *\npublic val Collection<*>.indices: IntRange\n
get() = 0..size - 1\n\n/**\n * Returns the index of the last item in the list or -1 if the list is empty.\n *\n * @sample
samples.collections.Collections.Lists.lastIndexOfList\n
*\npublic val <T> List<T>.lastIndex: Int\n get() = this.size - 1\n\n/**\n * Returns `true` if the collection is not
empty.\n * @sample samples.collections.Collections.Collections.collectionIsNotEmpty\n
*\n@kotlin.internal.InlineOnly\npublic inline fun <T> Collection<T>.isNotEmpty(): Boolean =
!isEmpty()\n\n/**\n * Returns `true` if this nullable collection is either null or empty.\n * @sample
samples.collections.Collections.Collections.collectionIsNullOrEmpty\n
*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Collection<T>?.isNullOrEmpty():
Boolean {\n contract {\n returns(false) implies (this@isNullOrEmpty != null)\n }\n\n return this == null ||
this.isEmpty()\n}\n\n/**\n * Returns this Collection if it's not `null` and the empty list otherwise.\n * @sample
samples.collections.Collections.Collections.collectionOrEmpty\n *\n@kotlin.internal.InlineOnly\npublic inline fun
<T> Collection<T>?.orEmpty():
Collection<T> = this ?: emptyList()\n\n/**\n * Returns this List if it's not `null` and the empty list otherwise.\n *
@sample samples.collections.Collections.Lists.listOrEmpty\n *\n@kotlin.internal.InlineOnly\npublic inline fun
<T> List<T>?.orEmpty(): List<T> = this ?: emptyList()\n\n/**\n * Returns this collection if it's not empty\n * or the
result of calling [defaultValue] function if the collection is empty.\n *\n * @sample
samples.collections.Collections.Collections.collectionIfEmpty\n
*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline fun <C, R> C.ifEmpty(defaultValue: () ->
R): R where C : Collection<*>, C : R =\n if (isEmpty()) defaultValue() else this\n\n\n/**\n * Checks if all
elements in the specified collection are contained in this collection.\n *\n * Allows to overcome type-safety
restriction of `containsAll` that requires to pass a collection of type `Collection<E>`.\n * @sample
samples.collections.Collections.Collections.collectionContainsAll\n
*\n@Suppress("EXTENSION_SHADOWED_BY_MEMBER") // false warning, extension takes precedence in
some cases\n@kotlin.internal.InlineOnly\npublic inline fun <@kotlin.internal.OnlyInputTypes T>

```

Collection<T>.containsAll(elements: Collection<T>): Boolean = this.containsAll(elements)

List<T>.shuffle(): List<T> = toMutableList().apply { shuffle(random) }

List<T>.optimizeReadOnlyList(): List<T> = when (size) { 0 -> emptyList() 1 -> listOf(this[0]) else -> this }

List<T>.binarySearch(element: T): Int { rangeCheck(size, fromIndex, toIndex) var low = fromIndex var high = toIndex - 1 while (low <= high) { val mid = (low + high).ushr(1) // safe from overflows val midVal = get(mid) val cmp = compareValues(midVal, element) if (cmp < 0) low = mid + 1 else if (cmp > 0) high = mid - 1 else return mid // key found } return -(low + 1) // key not found }

List<T>.binarySearch(element: T?, fromIndex: Int = 0, toIndex: Int = size): Int { rangeCheck(size, fromIndex, toIndex) var low = fromIndex var high = toIndex - 1 while (low <= high) { val mid = (low + high).ushr(1) // safe from overflows val midVal = get(mid) val cmp = comparator.compare(midVal, element) if (cmp < 0) low = mid + 1 else if (cmp > 0) high = mid - 1 else return mid // key found } return -(low + 1) // key not found }

List<T>.binarySearchBy(selector: (T) -> K?, fromIndex: Int = 0, toIndex: Int = size, comparator: Comparator<K>): Int { rangeCheck(size, fromIndex, toIndex) var low = fromIndex var high = toIndex - 1 while (low <= high) { val mid = (low + high).ushr(1) // safe from overflows val midVal = selector(get(mid)) val cmp = comparator.compare(midVal, key) if (cmp < 0) low = mid + 1 else if (cmp > 0) high = mid - 1 else return mid // key found } return -(low + 1) // key not found }

List<T>.binarySearchBy(selector: (T) -> K?, fromIndex: Int = 0, toIndex: Int = size, comparator: Comparator<K>): Int { rangeCheck(size, fromIndex, toIndex) var low = fromIndex var high = toIndex - 1 while (low <= high) { val mid = (low + high).ushr(1) // safe from overflows val midVal = selector(get(mid)) val cmp = comparator.compare(midVal, key) if (cmp < 0) low = mid + 1 else if (cmp > 0) high = mid - 1 else return mid // key found } return -(low + 1) // key not found }

\* The list is expected to be sorted so that the signs of the [comparison] function's return values ascend on the list elements, i.e. negative values come before zero and zeroes come before positive values. Otherwise, the result is undefined.

\* If the list contains multiple elements for which [comparison] returns zero, there is no guarantee which one will be found.

\* @param comparison function that returns zero when called on the list element being searched.

\* On the elements coming before the target element, the function must return negative values; on the elements coming after the target element, the function must return positive values.

\* @return the index of the found element, if it is contained in the list within the specified range; otherwise, the inverted insertion point  $-(\text{insertion point} - 1)$ .

\* The insertion point is defined as the index at which the element should be inserted, so that the list (or the specified subrange of list) still remains sorted.

\* @sample samples.collections.Collections.Lists.binarySearchWithComparisonFunction

```

public fun <T>
List<T>.binarySearch(fromIndex: Int = 0, toIndex: Int = size, comparison: (T) -> Int): Int {
    rangeCheck(size, fromIndex, toIndex)
    var low = fromIndex
    var high = toIndex - 1
    while (low <= high) {
        val mid = (low + high).ushr(1) // safe from overflows
        val midVal = get(mid)
        val cmp = comparison(midVal)
        if (cmp < 0) low = mid + 1
        else if (cmp > 0) high = mid - 1
        else return mid // key found
    }
    return -(low + 1) // key not found
}

```

\* Checks that `from` and `to` are in the range of [0..size] and throws an appropriate exception, if they aren't.

```

private fun rangeCheck(size: Int, fromIndex: Int, toIndex: Int) {
    when {
        fromIndex > toIndex -> throw IllegalArgumentException("fromIndex ($fromIndex) is greater than toIndex ($toIndex).")
        fromIndex < 0 -> throw IndexOutOfBoundsException("fromIndex ($fromIndex) is less than zero.")
        toIndex > size -> throw IndexOutOfBoundsException("toIndex ($toIndex) is greater than size ($size).")
    }
}

```

@PublishedApi

@SinceKotlin("1.3") internal expect fun checkIndexOverflow(index: Int): Int

@PublishedApi

@SinceKotlin("1.3") internal expect fun checkCountOverflow(count: Int): Int

@PublishedApi

@SinceKotlin("1.3") internal fun throwIndexOverflow() { throw ArithmeticException("Index overflow has happened.") }

@PublishedApi

@SinceKotlin("1.3") internal fun throwCountOverflow() { throw ArithmeticException("Count overflow has happened.") }

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```

@file:kotlin.jvm.JvmMultifileClass
@file:kotlin.jvm.JvmName("MapsKt")
@file:OptIn(kotlin.experimental.ExperimentalTypeInference::class)
package kotlin.collections
import kotlin.contracts.*
private object EmptyMap : Map<Any?, Nothing>, Serializable {
    private const val serialVersionUID: Long = 8246714829545688274
    override fun equals(other: Any?): Boolean = other is Map<*, *> && other.isEmpty()
    override fun hashCode(): Int = 0
    override fun toString(): String = "{}"
    override val size: Int get() = 0
    override fun isEmpty(): Boolean = true
    override fun containsKey(key: Any?): Boolean = false
    override fun containsValue(value: Nothing): Boolean = false
    override fun get(key: Any?): Nothing? = null
    override val entries: Set<Map.Entry<Any?, Nothing>> get() = EmptySet
    override val keys: Set<Any?> get() = EmptySet
    override val values: Collection<Nothing> get() = EmptyList
    private fun readResolve(): Any = EmptyMap
}

```

\* Returns an empty read-only map of specified type.

\* The returned map is serializable (JVM).

\* @sample samples.collections.Maps.Instantiation.emptyReadOnlyMap

\* @public fun <K, V> emptyMap(): Map<K, V> = @Suppress("UNCHECKED\_CAST") (EmptyMap as Map<K, V>)

\* Returns a new read-only map with the specified contents, given as a list of pairs where the first value is the key and the second is the value.

\* If multiple pairs have the same key, the resulting map will contain the value from the last of those pairs.

\* Entries of the map are iterated in the order they were specified.

\* The returned map is serializable (JVM).

\* @sample samples.collections.Maps.Instantiation.mapFromPairs

```

public fun <K, V> mapOf(vararg pairs: Pair<K, V>): Map<K, V> = if (pairs.size > 0) pairs.toMap(LinkedHashMap(mapCapacity(pairs.size))) else emptyMap()

```

\* Returns an empty read-only map.

\* The returned map is serializable (JVM).

```

@sample samples.collections.Maps.Instantiation.emptyReadOnlyMap\n * \n @kotlin.internal.InlineOnly\npublic
inline fun <K, V> mapOf(): Map<K, V> = emptyMap()\n\n/**\n * Returns an empty new [MutableMap].\n * \n *
The returned map preserves the entry iteration order.\n * @sample
samples.collections.Maps.Instantiation.emptyMutableMap\n
*\n @SinceKotlin("1.1")\n @kotlin.internal.InlineOnly\npublic inline fun <K, V> mutableMapOf():
MutableMap<K, V> = LinkedHashMap()\n\n/**\n * Returns a new [MutableMap] with the specified contents, given
as a list of pairs\n * where the first component is the key
and the second is the value.\n * \n * If multiple pairs have the same key, the resulting map will contain the value
from the last of those pairs.\n * \n * Entries of the map are iterated in the order they were specified.\n * \n * @sample
samples.collections.Maps.Instantiation.mutableMapFromPairs\n * @sample
samples.collections.Maps.Instantiation.emptyMutableMap\n *\npublic fun <K, V> mutableMapOf(vararg pairs:
Pair<K, V>): MutableMap<K, V> =\n LinkedHashMap<K, V>(mapCapacity(pairs.size)).apply { putAll(pairs)
}\n\n/**\n * Returns an empty new [HashMap].\n * \n * @sample
samples.collections.Maps.Instantiation.emptyHashMap\n
*\n @SinceKotlin("1.1")\n @kotlin.internal.InlineOnly\npublic inline fun <K, V> hashMapOf(): HashMap<K, V>
= HashMap<K, V>()\n\n/**\n * Returns a new [HashMap] with the specified contents, given as a list of pairs\n *
where the first component is the key and the second is the value.\n * \n * @sample
samples.collections.Maps.Instantiation.hashMapFromPairs\n *\npublic
fun <K, V> hashMapOf(vararg pairs: Pair<K, V>): HashMap<K, V> = HashMap<K,
V>(mapCapacity(pairs.size)).apply { putAll(pairs) }\n\n/**\n * Returns an empty new [LinkedHashMap].\n
*\n @SinceKotlin("1.1")\n @kotlin.internal.InlineOnly\npublic inline fun <K, V> linkedMapOf():
LinkedHashMap<K, V> = LinkedHashMap<K, V>()\n\n/**\n * Returns a new [LinkedHashMap] with the specified
contents, given as a list of pairs\n * where the first component is the key and the second is the value.\n * \n *
If multiple pairs have the same key, the resulting map will contain the value from the last of those pairs.\n * \n *
Entries of the map are iterated in the order they were specified.\n * \n * @sample
samples.collections.Maps.Instantiation.linkedMapFromPairs\n *\npublic fun <K, V> linkedMapOf(vararg pairs:
Pair<K, V>): LinkedHashMap<K, V> = pairs.toMap(LinkedHashMap(mapCapacity(pairs.size)))\n\n/**\n * Builds
a new read-only [Map] by populating a [MutableMap] using the given [builderAction]\n * and returning
a read-only map with the same key-value pairs.\n * \n * The map passed as a receiver to the [builderAction] is valid
only inside that function.\n * Using it outside of the function produces an unspecified behavior.\n * \n * Entries of
the map are iterated in the order they were added by the [builderAction].\n * \n * The returned map is serializable
(JVM).\n * \n * @sample samples.collections.Builders.Maps.buildMapSample\n
*\n @SinceKotlin("1.6")\n @WasExperimental(ExperimentalStdlibApi::class)\n @kotlin.internal.InlineOnly\n @Su
ppress("DEPRECATION")\npublic inline fun <K, V> buildMap(@BuilderInference builderAction:
MutableMap<K, V>().-> Unit): Map<K, V> { \n contract { callsInPlace(builderAction,
InvocationKind.EXACTLY_ONCE) }\n return
buildMapInternal(builderAction)\n }\n\n @PublishedApi\n @SinceKotlin("1.3")\n @kotlin.internal.InlineOnly\ninter
nal expect inline fun <K, V> buildMapInternal(builderAction: MutableMap<K, V>().-> Unit): Map<K,
V>\n\n/**\n * Builds a new read-only
[Map] by populating a [MutableMap] using the given [builderAction]\n * and returning a read-only map with the
same key-value pairs.\n * \n * The map passed as a receiver to the [builderAction] is valid only inside that
function.\n * Using it outside of the function produces an unspecified behavior.\n * \n * [capacity] is used to hint the
expected number of pairs added in the [builderAction].\n * \n * Entries of the map are iterated in the order they were
added by the [builderAction].\n * \n * The returned map is serializable (JVM).\n * \n * @throws
IllegalArgumentException if the given [capacity] is negative.\n * \n * @sample
samples.collections.Builders.Maps.buildMapSample\n
*\n @SinceKotlin("1.6")\n @WasExperimental(ExperimentalStdlibApi::class)\n @kotlin.internal.InlineOnly\n @Su
ppress("DEPRECATION")\npublic inline fun <K, V> buildMap(capacity: Int, @BuilderInference builderAction:

```

```

MutableMap<K, V>().->Unit): Map<K, V> {
    contract { callsInPlace(builderAction,
InvocationKind.EXACTLY_ONCE)
    }
    return buildMapInternal(capacity,
builderAction)
}
@PublishedApi
@SinceKotlin("1.3")
@kotlin.internal.InlineOnly
internal expect inline
fun <K, V> buildMapInternal(capacity: Int, builderAction: MutableMap<K, V>().->Unit): Map<K, V>
Calculate the initial capacity of a map.
*^@PublishedApi
internal expect fun mapCapacity(expectedSize: Int):
Int
* Returns `true` if this map is not empty.
* @sample
samples.collections.Maps.Usage.mapIsNotEmpty
*^@kotlin.internal.InlineOnly
public inline fun <K, V>
Map<out K, V>.isEmpty(): Boolean = !isEmpty()
* Returns `true` if this nullable map is either null or
empty.
* @sample samples.collections.Maps.Usage.mapIsNullOrEmpty
*^@kotlin("1.3")
@kotlin.internal.InlineOnly
public inline fun <K, V> Map<out K,
V>?.isNullOrEmpty(): Boolean {
    contract {
        returns(false) implies (this@isNullOrEmpty != null)
    }
    return this == null || isEmpty()
}
* Returns the [Map] if its not `null`, or the empty [Map] otherwise.
* @sample
samples.collections.Maps.Usage.mapOrElse
*^@kotlin.internal.InlineOnly
public inline fun <K, V> Map<K,
V>?.orElse(): Map<K, V> = this ?: emptyMap()
* Returns this map if it's not empty
* or the result of
calling [defaultValue] function if the map is empty.
* @sample
samples.collections.Maps.Usage.mapIfEmpty
*^@kotlin("1.3")
@kotlin.internal.InlineOnly
public
inline fun <M, R> M.isEmpty(defaultValue: () -> R): R where M : Map<*, *>, M : R =
    if (isEmpty())
    defaultValue() else this
* Checks if the map contains the given key.
* This method allows to use the
`x in map` syntax for checking whether an object is contained in the map.
* @sample
samples.collections.Maps.Usage.containsKey
*^@kotlin.internal.InlineOnly
public inline operator fun
<@kotlin.internal.OnlyInputTypes K, V> Map<out K, V>.contains(key: K): Boolean = containsKey(key)
* Returns the value corresponding to the given [key], or `null` if such a key is not present in the map.
*^@kotlin.internal.InlineOnly
public inline operator fun <@kotlin.internal.OnlyInputTypes K, V> Map<out K,
V>.get(key: K): V? =
    @Suppress("UNCHECKED_CAST") (this as Map<K, V>).get(key)
* Allows
to use the index operator for storing values in a mutable map.
*^@kotlin.internal.InlineOnly
public inline
operator fun <K, V> MutableMap<K, V>.set(key: K, value: V): Unit {
    put(key, value)
}
* Returns
`true` if the map contains the specified [key].
* Allows to overcome type-safety restriction of `containsKey`
that requires to pass a key of type `K`.
*^@kotlin.internal.InlineOnly
public inline fun
<@kotlin.internal.OnlyInputTypes K> Map<out K, *>.containsKey(key: K): Boolean =
    @Suppress("UNCHECKED_CAST") (this as Map<K, *>).containsKey(key)
* Returns `true` if the map
maps one or more keys to the specified [value].
* Allows to overcome type-safety restriction of `containsValue` that requires to pass a value of type `V`.
* @sample samples.collections.Maps.Usage.containsValue
*^@kotlin("1.3")
@kotlin.internal.InlineOnly
public inline fun <K, @kotlin.internal.OnlyInputTypes V> Map<K,
V>.containsValue(value: V): Boolean = this.containsValue(value)
* Removes the specified key and its
corresponding value from this map.
* @return the previous value associated with the key, or `null` if the key
was not present in the map.
* Allows to overcome type-safety restriction of `remove` that requires to pass a key
of type `K`.
*^@kotlin.internal.InlineOnly
public inline fun <@kotlin.internal.OnlyInputTypes K, V>
MutableMap<out K, V>.remove(key: K): V? =
    @Suppress("UNCHECKED_CAST") (this as MutableMap<K,
V>).remove(key)
* Returns the key component of the map entry.
* This
method allows to use destructuring declarations when working with maps, for example:
* for ((key, value)
in map) {
    // do something with the key and the value
}
*^@kotlin.internal.InlineOnly
public
inline operator fun <K, V> Map.Entry<K, V>.component1(): K = key
* Returns the value component of
the map entry.
* This method allows to use destructuring declarations when working with maps, for
example:
* for ((key, value) in map) {
    // do something with the key and the value
}

```

```

*\/n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> Map.Entry<K, V>.component2(): V =
value\n\n/**\n * Converts entry to [Pair] with key being first component and value being second.\n
*\/n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map.Entry<K, V>.toPair(): Pair<K, V> = Pair(key,
value)\n\n/**\n * Returns the value for the given [key] if the value is present and not `null`. \n * Otherwise, returns
the result of
the [defaultValue] function.\n * \n * @sample samples.collections.Maps.Usage.getOrElse\n
*\/n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<K, V>.getOrElse(key: K, defaultValue: () -> V): V
= get(key) ?: defaultValue()\n\ninternal inline fun <K, V> Map<K, V>.getOrElseNullable(key: K, defaultValue: ()
-> V): V {\n    val value = get(key)\n    if (value == null && !containsKey(key)) {\n        return defaultValue()\n    }
else {\n        @Suppress("UNCHECKED_CAST")\n        return value as V\n    }\n}\n\n/**\n * Returns the value
for the given [key] or throws an exception if there is no such key in the map.\n * \n * If the map was created by
[withDefault], resorts to its `defaultValue` provider function\n * instead of throwing an exception.\n * \n * @throws
NoSuchElementException when the map doesn't contain a value for the specified key and\n * no implicit default
value was provided for that map.\n * \n *\/n@SinceKotlin("1.1")\npublic fun <K, V> Map<K, V>.getValue(key: K): V
= getOrImplicitDefault(key)\n\n/**\n * Returns the value for the given [key] if the value is present and not `null`. \n
* Otherwise, calls the [defaultValue] function,\n * puts its result into the map under the given key and returns the
call result.\n * \n * Note that the operation is not guaranteed to be atomic if the map is being modified
concurrently.\n * \n * @sample samples.collections.Maps.Usage.getOrPut\n
*\/npublic inline fun <K, V>
MutableMap<K, V>.getOrPut(key: K, defaultValue: () -> V): V {\n    val value = get(key)\n    return if (value ==
null) {\n        val answer = defaultValue()\n        put(key, answer)\n        answer\n    } else {\n        value\n
    }\n}\n\n/**\n * Returns an [Iterator] over the entries in the [Map].\n * \n * @sample
samples.collections.Maps.Usage.forOverEntries\n
*\/n@kotlin.internal.InlineOnly\npublic inline operator fun <K,
V> Map<out K, V>.iterator(): Iterator<Map.Entry<K, V>> = entries.iterator()\n\n/**\n * Returns a
[MutableIterator] over the mutable
entries in the [MutableMap].\n * \n
*\/n@kotlin.jvm.JvmName("mutableIterator")\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V>
MutableMap<K, V>.iterator(): MutableIterator<MutableMap.MutableEntry<K, V>> = entries.iterator()\n\n/**\n *
Populates the given [destination] map with entries having the keys of this map and the values obtained\n * by
applying the [transform] function to each entry in this [Map].\n * \n *\/npublic inline fun <K, V, R, M : MutableMap<in
K, in R>> Map<out K, V>.mapValuesTo(destination: M, transform: (Map.Entry<K, V>) -> R): M {\n    return
entries.associateByTo(destination, { it.key }, transform)\n}\n\n/**\n * Populates the given [destination] map with
entries having the keys obtained\n * by applying the [transform] function to each entry in this [Map] and the values
of this map.\n * \n * In case if any two entries are mapped to the equal keys, the value of the latter one will
overwrite\n * the value associated with the former one.\n * \n *\/npublic inline
fun <K, V, R, M : MutableMap<in R, in V>> Map<out K, V>.mapKeysTo(destination: M, transform:
(Map.Entry<K, V>) -> R): M {\n    return entries.associateByTo(destination, transform, { it.value })\n}\n\n/**\n *
Puts all the given [pairs] into this [MutableMap] with the first component in the pair being the key and the second
the value.\n * \n *\/npublic fun <K, V> MutableMap<in K, in V>.putAll(pairs: Array<out Pair<K, V>>): Unit {\n    for
((key, value) in pairs) {\n        put(key, value)\n    }\n}\n\n/**\n * Puts all the elements of the given collection into
this [MutableMap] with the first component in the pair being the key and the second the value.\n * \n *\/npublic fun <K,
V> MutableMap<in K, in V>.putAll(pairs: Iterable<Pair<K, V>>): Unit {\n    for ((key, value) in pairs) {\n
put(key, value)\n    }\n}\n\n/**\n * Puts all the elements of the given sequence into this [MutableMap] with the first
component in the pair being the key and the second the value.\n * \n *\/npublic fun <K, V> MutableMap<in
K, in V>.putAll(pairs: Sequence<Pair<K, V>>): Unit {\n    for ((key, value) in pairs) {\n        put(key, value)\n
    }\n}\n\n/**\n * Returns a new map with entries having the keys of this map and the values obtained by applying the
[transform]\n * function to each entry in this [Map].\n * \n * The returned map preserves the entry iteration order of
the original map.\n * \n * @sample samples.collections.Maps.Transformations.mapValues\n
*\/npublic inline fun
<K, V, R> Map<out K, V>.mapValues(transform: (Map.Entry<K, V>) -> R): Map<K, R> {\n    return

```

```

mapValuesTo(LinkedHashMap<K, R>(mapCapacity(size)), transform) // .optimizeReadOnlyMap()\n\n\n**\n *
Returns a new Map with entries having the keys obtained by applying the [transform] function to each entry in this\n
* [Map] and the values of this map.\n * In case if any two entries are mapped to the equal keys, the value of the
latter one will overwrite\n * the value associated with the former one.\n * The returned map
preserves the entry iteration order of the original map.\n * @sample
samples.collections.Maps.Transformations.mapKeys\n */\npublic inline fun <K, V, R> Map<out K,
V>.mapKeys(transform: (Map.Entry<K, V>) -> R): Map<R, V> {\n    return mapKeysTo(LinkedHashMap<R,
V>(mapCapacity(size)), transform) // .optimizeReadOnlyMap()\n\n\n**\n * Returns a map containing all key-
value pairs with keys matching the given [predicate].\n * The returned map preserves the entry iteration order of
the original map.\n * @sample samples.collections.Maps.Filtering.filterKeys\n */\npublic inline fun <K, V>
Map<out K, V>.filterKeys(predicate: (K) -> Boolean): Map<K, V> {\n    val result = LinkedHashMap<K, V>()\n
for (entry in this) {\n        if (predicate(entry.key)) {\n            result.put(entry.key, entry.value)\n        }\n    }\n
return result\n}\n\n**\n * Returns a map containing all key-value pairs with values matching the given
[predicate].\n * The returned map preserves the entry
iteration order of the original map.\n * @sample samples.collections.Maps.Filtering.filterValues\n */\npublic inline
fun <K, V> Map<out K, V>.filterValues(predicate: (V) -> Boolean): Map<K, V> {\n    val result =
LinkedHashMap<K, V>()\n    for (entry in this) {\n        if (predicate(entry.value)) {\n            result.put(entry.key,
entry.value)\n        }\n    }\n    return result\n}\n\n**\n * Appends all entries matching the given [predicate] into
the mutable map given as [destination] parameter.\n * @return the destination map.\n * @sample
samples.collections.Maps.Filtering.filterTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> Map<out
K, V>.filterTo(destination: M, predicate: (Map.Entry<K, V>) -> Boolean): M {\n    for (element in this) {\n        if
(predicate(element)) {\n            destination.put(element.key, element.value)\n        }\n    }\n    return
destination\n}\n\n**\n * Returns a new map containing all key-value pairs matching the given [predicate].\n
*\n * The returned map preserves the entry iteration order of the original map.\n * @sample
samples.collections.Maps.Filtering.filter\n */\npublic inline fun <K, V> Map<out K, V>.filter(predicate:
(Map.Entry<K, V>) -> Boolean): Map<K, V> {\n    return filterTo(LinkedHashMap<K, V>(),
predicate)\n}\n\n**\n * Appends all entries not matching the given [predicate] into the given [destination].\n *
*\n * @return the destination map.\n * @sample samples.collections.Maps.Filtering.filterNotTo\n */\npublic inline fun
<K, V, M : MutableMap<in K, in V>> Map<out K, V>.filterNotTo(destination: M, predicate: (Map.Entry<K, V>) -
> Boolean): M {\n    for (element in this) {\n        if (!predicate(element)) {\n            destination.put(element.key,
element.value)\n        }\n    }\n    return destination\n}\n\n**\n * Returns a new map containing all key-value pairs
not matching the given [predicate].\n * The returned map preserves the entry iteration order of the original
map.\n * @sample
samples.collections.Maps.Filtering.filterNot\n */\npublic inline fun <K, V> Map<out K, V>.filterNot(predicate:
(Map.Entry<K, V>) -> Boolean): Map<K, V> {\n    return filterNotTo(LinkedHashMap<K, V>(),
predicate)\n}\n\n**\n * Returns a new map containing all key-value pairs from the given collection of pairs.\n *
*\n * The returned map preserves the entry iteration order of the original collection.\n * If any of two pairs would have the
same key the last one gets added to the map.\n */\npublic fun <K, V> Iterable<Pair<K, V>>.toMap(): Map<K, V>
{\n    if (this is Collection) {\n        return when (size) {\n            0 -> emptyMap()\n            1 -> mapOf(if (this is
List) this[0] else iterator().next())\n            else -> toMap(LinkedHashMap<K, V>(mapCapacity(size)))\n        }\n    }\n
return toMap(LinkedHashMap<K, V>()).optimizeReadOnlyMap()\n}\n\n**\n * Populates and returns the
[destination] mutable map with key-value pairs from the given collection of pairs.\n */\npublic fun
<K, V, M : MutableMap<in K, in V>> Iterable<Pair<K, V>>.toMap(destination: M): M =\n    destination.apply {
putAll(this@toMap) }\n\n**\n * Returns a new map containing all key-value pairs from the given array of pairs.\n
*\n * The returned map preserves the entry iteration order of the original array.\n * If any of two pairs would have
the same key the last one gets added to the map.\n */\npublic fun <K, V> Array<out Pair<K, V>>.toMap(): Map<K,
V> = when (size) {\n    0 -> emptyMap()\n    1 -> mapOf(this[0])\n    else -> toMap(LinkedHashMap<K,
V>(mapCapacity(size)))\n}\n\n**\n * Populates and returns the [destination] mutable map with key-value pairs

```



from the given array of pairs.

```

public fun <K, V, M : MutableMap<in K, in V>> Array<out Pair<K, V>>.toMap(destination: M): M =
    destination.apply { putAll(this@toMap) }

```

Returns a new map containing all key-value pairs from the given sequence of pairs. The returned map preserves the entry iteration order of the original sequence. If any of two pairs would have the same key the last one gets added to the map.

```

public fun <K, V> Sequence<Pair<K, V>>.toMap(): Map<K, V> = toMap(LinkedHashMap<K, V>())

```

optimizeReadOnlyMap()

```

public fun <K, V, M : MutableMap<in K, in V>> Sequence<Pair<K, V>>.toMap(destination: M): M =
    destination.apply { putAll(this@toMap) }

```

Returns a new read-only map containing all key-value pairs from the original map. The returned map preserves the entry iteration order of the original map.

```

@SinceKotlin("1.1")
public fun <K, V> Map<out K, V>.toMap(): Map<K, V> =
    when (size) {
        0 -> emptyMap()
        1 -> toSingletonMap()
        else -> toMutableMap()
    }

```

Returns a new mutable map containing all key-value pairs from the original map. The returned map preserves the entry iteration order of the original map.

```

@SinceKotlin("1.1")
public fun <K, V> Map<out K, V>.toMutableMap(): MutableMap<K, V> =
    LinkedHashMap(this)

```

Populates and returns the [destination] mutable map with key-value pairs from the given map.

```

@SinceKotlin("1.1")
public fun <K, V, M : MutableMap<in K, in V>> Map<out K, V>.toMap(destination: M): M =
    destination.apply { putAll(this@toMap) }

```

Creates a new read-only map by replacing or adding an entry to this map from a given key-value [pair]. The returned map preserves the entry iteration order of the original map. The [pair] is iterated in the end if it has a unique key.

```

public operator fun <K, V> Map<out K, V>.plus(pair: Pair<K, V>): Map<K, V> =
    if (this.isEmpty()) mapOf(pair) else
    LinkedHashMap(this).apply { put(pair.first, pair.second) }

```

Creates a new read-only map by replacing or adding entries to this map from a given collection of key-value [pairs]. The returned map preserves the entry iteration order of the original map. Those [pairs] with unique keys are iterated in the end in the order of [pairs] collection.

```

public operator fun <K, V> Map<out K, V>.plus(pairs: Iterable<Pair<K, V>>): Map<K, V> =
    if (this.isEmpty()) pairs.toMap() else LinkedHashMap(this).apply { putAll(pairs) }

```

Creates a new read-only map by replacing or adding entries to this map from a given array of key-value [pairs]. The returned map preserves the entry iteration order of the original map. Those [pairs] with unique keys are iterated in the end in the order of [pairs] array.

```

public operator fun <K, V> Map<out K, V>.plus(pairs: Array<out Pair<K, V>>): Map<K, V> =
    if (this.isEmpty()) pairs.toMap() else LinkedHashMap(this).apply { putAll(pairs) }

```

Creates a new read-only map by replacing or adding entries to this map from a given sequence of key-value [pairs]. The returned map preserves the entry iteration order of the original map. Those [pairs] with unique keys are iterated in the end in the order of [pairs] sequence.

```

public operator fun <K, V> Map<out K, V>.plus(pairs: Sequence<Pair<K, V>>): Map<K, V> =
    LinkedHashMap(this).apply { putAll(pairs) }.optimizeReadOnlyMap()

```

Creates a new read-only map by replacing or adding entries to this map from another [map]. The returned map preserves the entry iteration order of the original map. Those entries of another [map] that are missing in this map are iterated in the end in the order of that [map].

```

public operator fun <K, V> Map<out K, V>.plus(map: Map<out K, V>): Map<K, V> =
    LinkedHashMap(this).apply { putAll(map) }

```

Appends or replaces the given [pair] in this mutable map.

```

@kotlin.internal.InlineOnly
public inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(pair: Pair<K, V>) {
    put(pair.first, pair.second)
}

```

Appends or replaces all pairs from the given collection of [pairs] in this mutable map.

```

@kotlin.internal.InlineOnly
public inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(pairs: Iterable<Pair<K, V>>) {
    putAll(pairs)
}

```

Appends or replaces all pairs from the given array of [pairs] in this mutable map.

```

@kotlin.internal.InlineOnly
public inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(pairs: Array<out Pair<K, V>>) {
    putAll(pairs)
}

```

Appends or replaces all pairs from the given sequence of [pairs] in this mutable map.

```

@kotlin.internal.InlineOnly
public inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(pairs:

```

```

Sequence<Pair<K, V>> { \n  putAll(pairs)\n }\n\n/**\n * Appends or replaces all entries from the given [map] in
this mutable map.\n * \n\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<in K, in
V>.plusAssign(map: Map<K, V>) { \n  putAll(map)\n }\n\n/**\n * Returns a map containing all entries of the
original map except the entry
with the given [key].\n * \n\n * The returned map preserves the entry iteration order of the original map.\n
*\n\n@SinceKotlin("1.1")\npublic operator fun <K, V> Map<out K, V>.minus(key: K): Map<K, V> =\n
this.toMutableMap().apply { minusAssign(key) }.optimizeReadOnlyMap()\n\n/**\n * Returns a map containing all
entries of the original map except those entries\n * the keys of which are contained in the given [keys] collection.\n
*\n\n * The returned map preserves the entry iteration order of the original map.\n * \n\n@SinceKotlin("1.1")\npublic
operator fun <K, V> Map<out K, V>.minus(keys: Iterable<K>): Map<K, V> =\n  this.toMutableMap().apply {
minusAssign(keys) }.optimizeReadOnlyMap()\n\n/**\n * Returns a map containing all entries of the original map
except those entries\n * the keys of which are contained in the given [keys] array.\n * \n\n * The returned map
preserves the entry iteration order of the original map.\n * \n\n@SinceKotlin("1.1")\npublic operator fun <K, V>
Map<out K, V>.minus(keys:
Array<out K>): Map<K, V> =\n  this.toMutableMap().apply { minusAssign(keys)
}.optimizeReadOnlyMap()\n\n/**\n * Returns a map containing all entries of the original map except those entries\n
* the keys of which are contained in the given [keys] sequence.\n * \n\n * The returned map preserves the entry
iteration order of the original map.\n * \n\n@SinceKotlin("1.1")\npublic operator fun <K, V> Map<out K,
V>.minus(keys: Sequence<K>): Map<K, V> =\n  this.toMutableMap().apply { minusAssign(keys)
}.optimizeReadOnlyMap()\n\n/**\n * Removes the entry with the given [key] from this mutable map.\n
*\n\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<K,
V>.minusAssign(key: K) { \n  remove(key)\n }\n\n/**\n * Removes all entries the keys of which are contained in
the given [keys] collection from this mutable map.\n
*\n\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<K,
V>.minusAssign(keys:
Iterable<K>) { \n  this.keys.removeAll(keys)\n }\n\n/**\n * Removes all entries the keys of which are contained in
the given [keys] array from this mutable map.\n * \n\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic
inline operator fun <K, V> MutableMap<K, V>.minusAssign(keys: Array<out K>) { \n
this.keys.removeAll(keys)\n }\n\n/**\n * Removes all entries from the keys of which are contained in the given
[keys] sequence from this mutable map.\n * \n\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline
operator fun <K, V> MutableMap<K, V>.minusAssign(keys: Sequence<K>) { \n
this.keys.removeAll(keys)\n }\n\n\n// do not expose for now @PublishedApi\ninternal fun <K, V> Map<K,
V>.optimizeReadOnlyMap() = when (size) { \n  0 -> emptyMap()\n  1 -> toSingletonMapOrSelf()\n  else ->
this\n }\n\n\n/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of
this source code is governed by the Apache 2.0 license that can be found
in the license/LICENSE.txt file.\n
*\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("SetsKt")\n@file:OptIn(kotlin.experimenta
l.ExperimentalTypeInference::class)\n\npackage kotlin.collections\n\nimport kotlin.contracts.*\n\ninternal object
EmptySet : Set<Nothing>, Serializable { \n  private const val serialVersionUID: Long =
3406603774387020532\n\n  override fun equals(other: Any?): Boolean = other is Set<*> && other.isEmpty()\n
\n  override fun hashCode(): Int = 0\n\n  override fun toString(): String = "[]"\n\n  override val size: Int get() = 0\n
\n  override fun isEmpty(): Boolean = true\n\n  override fun contains(element: Nothing): Boolean = false\n\n  override
fun containsAll(elements: Collection<Nothing>): Boolean = elements.isEmpty()\n\n  override fun iterator():
Iterator<Nothing> = EmptyIterator\n\n  private fun readResolve(): Any = EmptySet\n }\n\n\n/**\n * Returns an
empty read-only set. The returned set is serializable (JVM).\n * \n\n * @sample
samples.collections.Collections.Sets.emptyReadOnlySet\n
*\n\n@public fun <T> emptySet(): Set<T> = EmptySet\n\n/**\n * Returns a new read-only set with the given
elements.\n * \n\n * Elements of the set are iterated in the order they were specified.\n * \n\n * The returned set is serializable

```

(JVM).\n \* @sample samples.collections.Collections.Sets.readOnlySet\n \* ^\npublic fun <T> setOf(vararg elements: T): Set<T> = if (elements.size > 0) elements.toSet() else emptySet()\n\n/\*\*\n \* Returns an empty read-only set. The returned set is serializable (JVM).\n \* @sample samples.collections.Collections.Sets.emptyReadOnlySet\n \* ^\n@kotlin.internal.InlineOnly\npublic inline fun <T> setOf(): Set<T> = emptySet()\n\n/\*\*\n \* Returns an empty new [MutableSet].\n \* ^\n \* The returned set preserves the element iteration order.\n \* @sample samples.collections.Collections.Sets.emptyMutableSet\n \* ^\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline fun <T> mutableSetOf(): MutableSet<T> = LinkedHashSet()\n\n/\*\*\n \* Returns a new [MutableSet] with the given elements.\n \* Elements of the set are iterated in the order they were specified.\n \* @sample samples.collections.Collections.Sets.mutableSet\n \* ^\npublic fun <T> mutableSetOf(vararg elements: T): MutableSet<T> = elements.toCollection(LinkedHashSet(mapCapacity(elements.size)))\n\n/\*\* Returns an empty new [HashSet].\n \* ^\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline fun <T> hashSetOf(): HashSet<T> = HashSet()\n\n/\*\* Returns a new [HashSet] with the given elements.\n \* ^\npublic fun <T> hashSetOf(vararg elements: T): HashSet<T> = elements.toCollection(HashSet(mapCapacity(elements.size)))\n\n/\*\* Returns an empty new [LinkedHashSet].\n \* @sample samples.collections.Collections.Sets.emptyLinkedHashSet\n \* ^\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline fun <T> linkedSetOf(): LinkedHashSet<T> = LinkedHashSet()\n\n/\*\* Returns a new [LinkedHashSet] with the given elements.\n \* Elements of the set are iterated in the order they were specified.\n \* @sample samples.collections.Collections.Sets.linkedHashSet\n \* ^\npublic fun <T> linkedSetOf(vararg elements: T): LinkedHashSet<T> = elements.toCollection(LinkedHashSet(mapCapacity(elements.size)))\n\n/\*\* Returns a new read-only set either with single given element, if it is not null, or empty set if the element is null.\n \* The returned set is serializable (JVM).\n \* @sample samples.collections.Collections.Sets.setOfNotNull\n \* ^\n@SinceKotlin("1.4")\npublic fun <T : Any> setOfNotNull(element: T?): Set<T> = if (element != null) setOf(element) else emptySet()\n\n/\*\* Returns a new read-only set only with those given elements, that are not null.\n \* Elements of the set are iterated in the order they were specified.\n \* The returned set is serializable (JVM).\n \* @sample samples.collections.Collections.Sets.setOfNotNull\n \* ^\n@SinceKotlin("1.4")\npublic fun <T : Any> setOfNotNull(vararg elements: T?): Set<T> {\n return elements.filterNotNullTo(LinkedHashSet())\n}\n\n/\*\* Builds a new read-only [Set] by populating a [MutableSet] using the given [builderAction]\n \* and returning a read-only set with the same elements.\n \* ^\n \* The set passed as a receiver to the [builderAction] is valid only inside that function.\n \* Using it outside of the function produces an unspecified behavior.\n \* ^\n \* Elements of the set are iterated in the order they were added by the [builderAction].\n \* ^\n \* The returned set is serializable (JVM).\n \* ^\n \* @sample samples.collections.Builders.Sets.buildSetSample\n \* ^\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\n@Suppress("DEPRECATION")\npublic inline fun <E> buildSet(@BuilderInference builderAction: MutableSet<E>().-> Unit): Set<E> {\n contract { callsInPlace(builderAction, InvocationKind.EXACTLY\_ONCE) }\n return buildSetInternal(builderAction)\n}\n\n@PublishedApi\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\ninternal expect inline fun <E> buildSetInternal(builderAction: MutableSet<E>().-> Unit): Set<E>\n\n/\*\* Builds a new read-only [Set] by populating a [MutableSet] using the given [builderAction]\n \* and returning a read-only set with the same elements.\n \* ^\n \* The set passed as a receiver to the [builderAction] is valid only inside that function.\n \* Using it outside of the function produces an unspecified behavior.\n \* ^\n \* [capacity] is used to hint the expected number of elements added in the [builderAction].\n \* ^\n \* Elements of the set are iterated in the order they were added by the [builderAction].\n \* ^\n \* The returned set is serializable (JVM).\n \* ^\n \* @throws IllegalArgumentException if the given [capacity] is negative.\n \* ^\n \* @sample samples.collections.Builders.Sets.buildSetSample\n \* ^\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\n@Su





```

fun String.toLongOrNull(radix: Int): Long? {
    checkRadix(radix)
    val length = this.length
    if (length == 0) return null
    val start: Int
    val isNegative: Boolean
    val limit: Long
    val firstChar = this[0]
    if (firstChar < '0') { // Possible leading sign
        if (length == 1) return null // non-digit (possible sign) only, no digits after
        start = 1
        if (firstChar == '-') {
            isNegative = true
            limit = Long.MIN_VALUE
        } else if (firstChar == '+') {
            isNegative = false
            limit = Long.MAX_VALUE
        } else {
            return null
        }
    } else {
        start = 0
        isNegative = false
        limit = -Long.MAX_VALUE
    }
    val limitForMaxRadix = (-Long.MAX_VALUE) / 36
    var limitBeforeMul = limitForMaxRadix
    var result = 0L
    for (i in start until length) {
        val digit = digitOf(this[i], radix)
        if (digit < 0) return null
        if (result < limitBeforeMul) {
            if (limitBeforeMul == limitForMaxRadix) {
                limitBeforeMul = limit / radix
                if (result < limitBeforeMul) {
                    return null
                }
            } else {
                return null
            }
        }
        result *= radix
        if (result < limit + digit) return null
        result -= digit
    }
    return if (isNegative) result else -result
}

internal fun numberFormatError(input: String): Nothing = throw NumberFormatException("Invalid number format: '$input'")

/*
 * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.
 * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.
 */
package kotlin.time
import kotlin.contracts.*
import kotlin.jvm.JvmInline
import kotlin.math.*

/**
 * Represents the amount of time
 *
 * one instant of time is away from another instant.
 *
 * A negative duration is possible in a situation when the second instant is earlier than the first one.
 *
 * The type can store duration values up to 1146 years with nanosecond precision,
 * and up to 1146 million years with millisecond precision.
 *
 * If a duration-returning operation provided in `kotlin.time` produces a duration value that doesn't fit into the above range,
 * the returned `Duration` is infinite.
 *
 * An infinite duration value [Duration.INFINITE] can be used to represent infinite timeouts.
 *
 * To construct a duration use either the extension function [toDuration],
 * or the extension properties [hours], [minutes], [seconds], and so on,
 * available on [Int], [Long], and [Double] numeric types.
 *
 * To get the value of this duration expressed in a particular [duration units][DurationUnit]
 * use the functions [toInt], [toLong], and [toDouble]
 * or the properties [inWholeHours], [inWholeMinutes], [inWholeSeconds], [inWholeNanoseconds], and so on.
 */
@SinceKotlin("1.6")
@WasExperimental(ExperimentalTime::class)
@JvmInline
public value class Duration internal constructor(private val rawValue: Long) : Comparable<Duration> {
    private val value: Long get() = rawValue shr 1
    private inline val unitDiscriminator: Int get() = rawValue.toInt() and 1
    private fun isInNanos() = unitDiscriminator == 0
    private fun isInMillis() = unitDiscriminator == 1
    private val storageUnit get() = if (isInNanos()) DurationUnit.NANOSECONDS else DurationUnit.MILLISECONDS

    init {
        if (durationAssertionsEnabled) {
            if (isInNanos()) {
                if (value !in -MAX_NANOS..MAX_NANOS) throw AssertionError("$value ns is out of nanoseconds range")
            } else {
                if (value !in -MAX_MILLIS..MAX_MILLIS) throw AssertionError("$value ms is out of milliseconds range")
                if (value in -MAX_NANOS_IN_MILLIS..MAX_NANOS_IN_MILLIS)
                    throw AssertionError("$value ms is denormalized")
            }
        }
    }

    companion object {
        /**
         * The duration equal to exactly 0 seconds.
         */
        public val ZERO: Duration = Duration(0L)

        /**
         * The duration whose value is positive infinity. It is useful for representing timeouts that should never expire.
         */
        public val INFINITE: Duration = durationOfMillis(MAX_MILLIS)

        internal val NEG_INFINITE: Duration = durationOfMillis(-MAX_MILLIS)

        /**
         * Converts the given time duration [value] expressed in the specified [sourceUnit] into the specified [targetUnit].
         */
        @ExperimentalTime
        public fun convert(value: Double, sourceUnit: DurationUnit, targetUnit: DurationUnit): Double =
            convertDurationUnit(value, sourceUnit, targetUnit)

        // Duration construction extension properties in Duration companion scope
        /**
         * Returns a [Duration] equal to this [Int] number of nanoseconds.
         */
        @kotlin.internal.InlineOnly
        public inline val Int.nanoseconds get() =
            toDuration(DurationUnit.NANOSECONDS)

        /**
         * Returns a [Duration] equal to this [Long] number of

```

```

nanoseconds. *^@kotlin.internal.InlineOnly\n    public inline val Long.nanoseconds get() =
toDuration(DurationUnit.NANOSECONDS)\n\n    /**\n    * Returns a [Duration] equal to this [Double]
number of nanoseconds.\n    *\n    * Depending on its magnitude, the value is rounded to an integer number of
nanoseconds or milliseconds.\n    *\n    * @throws IllegalArgumentException if this [Double] value is
`NaN`.\n    */\n    @kotlin.internal.InlineOnly\n    public inline val Double.nanoseconds get() =
toDuration(DurationUnit.NANOSECONDS)\n\n    /** Returns a [Duration] equal to this [Int] number of
microseconds. *^@kotlin.internal.InlineOnly\n    public inline val Int.microseconds get() =
toDuration(DurationUnit.MICROSECONDS)\n\n    /** Returns a [Duration] equal to this [Long] number of microseconds. *^@kotlin.internal.InlineOnly\n    public inline val Long.microseconds get() = toDuration(DurationUnit.MICROSECONDS)\n\n    /**\n    * Returns a [Duration] equal to this [Double] number of microseconds.\n    *\n    * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or milliseconds.\n    *\n    * @throws
IllegalArgumentException if this [Double] value is `NaN`.\n    */\n    @kotlin.internal.InlineOnly\n    public
inline val Double.microseconds get() = toDuration(DurationUnit.MICROSECONDS)\n\n    /** Returns a
[Duration] equal to this [Int] number of milliseconds. *^@kotlin.internal.InlineOnly\n    public inline val
Int.milliseconds get() = toDuration(DurationUnit.MILLISECONDS)\n\n    /** Returns a [Duration] equal to this
[Long] number of milliseconds. *^@kotlin.internal.InlineOnly\n    public inline val Long.milliseconds get() = toDuration(DurationUnit.MILLISECONDS)\n\n    /**\n    * Returns a [Duration] equal to this [Double] number of milliseconds.\n    *\n    * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or milliseconds.\n    *\n    * @throws
IllegalArgumentException if this [Double] value is `NaN`.\n    */\n    @kotlin.internal.InlineOnly\n    public
inline val Double.milliseconds get() = toDuration(DurationUnit.MILLISECONDS)\n\n    /** Returns a
[Duration] equal to this [Int] number of seconds. *^@kotlin.internal.InlineOnly\n    public inline val
Int.seconds get() = toDuration(DurationUnit.SECONDS)\n\n    /** Returns a [Duration] equal to this [Long]
number of seconds. *^@kotlin.internal.InlineOnly\n    public inline val Long.seconds get() =
toDuration(DurationUnit.SECONDS)\n\n    /**\n    * Returns a [Duration] equal
to this [Double] number of seconds.\n    *\n    * Depending on its magnitude, the value is rounded to an
integer number of nanoseconds or milliseconds.\n    *\n    * @throws IllegalArgumentException if this
[Double] value is `NaN`.\n    */\n    @kotlin.internal.InlineOnly\n    public inline val Double.seconds get() =
toDuration(DurationUnit.SECONDS)\n\n    /** Returns a [Duration] equal to this [Int] number of minutes. *^@kotlin.internal.InlineOnly\n    public inline val Int.minutes get() = toDuration(DurationUnit.MINUTES)\n\n    /** Returns a [Duration] equal to this [Long] number of minutes. *^@kotlin.internal.InlineOnly\n    public inline val Long.minutes get() = toDuration(DurationUnit.MINUTES)\n\n    /**\n    * Returns a
[Duration] equal to this [Double] number of minutes.\n    *\n    * Depending on its magnitude, the value is
rounded to an integer number of nanoseconds or milliseconds.\n    *\n    * @throws IllegalArgumentException if this
[Double] value is `NaN`.\n    */\n    @kotlin.internal.InlineOnly\n    public inline val Double.minutes get() =
toDuration(DurationUnit.MINUTES)\n\n    /** Returns a [Duration] equal to this [Int] number of hours. *^@kotlin.internal.InlineOnly\n    public inline val Int.hours get() = toDuration(DurationUnit.HOURS)\n\n    /**
Returns a [Duration] equal to this [Long] number of hours. *^@kotlin.internal.InlineOnly\n    public inline
val Long.hours get() = toDuration(DurationUnit.HOURS)\n\n    /**\n    * Returns a [Duration] equal to this
[Double] number of hours.\n    *\n    * Depending on its magnitude, the value is rounded to an integer number
of nanoseconds or milliseconds.\n    *\n    * @throws IllegalArgumentException if this [Double] value is
`NaN`.\n    */\n    @kotlin.internal.InlineOnly\n    public inline val Double.hours get()
= toDuration(DurationUnit.HOURS)\n\n    /** Returns a [Duration] equal to this [Int] number of days. *^@kotlin.internal.InlineOnly\n    public inline val Int.days get() = toDuration(DurationUnit.DAYS)\n\n    /**
Returns a [Duration] equal to this [Long] number of days. *^@kotlin.internal.InlineOnly\n    public inline
val Long.days get() = toDuration(DurationUnit.DAYS)\n\n    /**\n    * Returns a [Duration] equal to this

```

```

[Double] number of days.\n      *\n      * Depending on its magnitude, the value is rounded to an integer number
of nanoseconds or milliseconds.\n      *\n      * @throws IllegalArgumentException if this [Double] value is
`NaN`.\n      *\n      @kotlin.internal.InlineOnly\n      public inline val Double.days get() =
toDuration(DurationUnit.DAYS)\n\n      // deprecated static factory functions\n      /** Returns a [Duration]
representing the specified [value] number of nanoseconds. *\n      @SinceKotlin("1.5")\n      @ExperimentalTime\n      @Deprecated("Use 'Int.nanoseconds' extension property from
Duration.Companion instead.", ReplaceWith("value.nanoseconds",
"kotlin.time.Duration.Companion.nanoseconds"))\n      @DeprecatedSinceKotlin(warningSince = "1.6",
errorSince = "1.8")\n      public fun nanoseconds(value: Int): Duration =
value.toDuration(DurationUnit.NANOSECONDS)\n      /** Returns a [Duration] representing the specified
[value] number of nanoseconds. *\n      @SinceKotlin("1.5")\n      @ExperimentalTime\n      @Deprecated("Use 'Long.nanoseconds' extension property from Duration.Companion instead.",
ReplaceWith("value.nanoseconds", "kotlin.time.Duration.Companion.nanoseconds"))\n      @DeprecatedSinceKotlin(warningSince = "1.6", errorSince = "1.8")\n      public fun nanoseconds(value: Long):
Duration = value.toDuration(DurationUnit.NANOSECONDS)\n      /**\n      * Returns a [Duration]
representing the specified
[value] number of nanoseconds.\n      *\n      * @throws IllegalArgumentException if the provided `Double`
[value] is `NaN`.\n      *\n      @SinceKotlin("1.5")\n      @ExperimentalTime\n      @Deprecated("Use
'Double.nanoseconds' extension property from Duration.Companion instead.", ReplaceWith("value.nanoseconds",
"kotlin.time.Duration.Companion.nanoseconds"))\n      @DeprecatedSinceKotlin(warningSince = "1.6",
errorSince = "1.8")\n      public fun nanoseconds(value: Double): Duration =
value.toDuration(DurationUnit.NANOSECONDS)\n      /** Returns a [Duration] representing the specified
[value] number of microseconds. *\n      @SinceKotlin("1.5")\n      @ExperimentalTime\n      @Deprecated("Use 'Int.microseconds' extension property from Duration.Companion instead.",
ReplaceWith("value.microseconds", "kotlin.time.Duration.Companion.microseconds"))\n      @DeprecatedSinceKotlin(warningSince = "1.6", errorSince = "1.8")\n      public fun microseconds(value: Int): Duration = value.toDuration(DurationUnit.MICROSECONDS)\n      /**
Returns a [Duration] representing the specified [value] number of microseconds. *\n      @SinceKotlin("1.5")\n      @ExperimentalTime\n      @Deprecated("Use 'Long.microseconds' extension property from
Duration.Companion instead.", ReplaceWith("value.microseconds",
"kotlin.time.Duration.Companion.microseconds"))\n      @DeprecatedSinceKotlin(warningSince = "1.6",
errorSince = "1.8")\n      public fun microseconds(value: Long): Duration =
value.toDuration(DurationUnit.MICROSECONDS)\n      /**\n      * Returns a [Duration] representing the
specified [value] number of microseconds.\n      *\n      * @throws IllegalArgumentException if the provided
`Double` [value] is `NaN`.\n      *\n      @SinceKotlin("1.5")\n      @ExperimentalTime\n      @Deprecated("Use 'Double.microseconds' extension property from Duration.Companion instead.",
ReplaceWith("value.microseconds", "kotlin.time.Duration.Companion.microseconds"))\n      @DeprecatedSinceKotlin(warningSince = "1.6", errorSince = "1.8")\n      public fun microseconds(value:
Double): Duration = value.toDuration(DurationUnit.MICROSECONDS)\n      /** Returns a [Duration]
representing the specified [value] number of milliseconds. *\n      @SinceKotlin("1.5")\n      @ExperimentalTime\n      @Deprecated("Use 'Int.milliseconds' extension property from Duration.Companion
instead.", ReplaceWith("value.milliseconds", "kotlin.time.Duration.Companion.milliseconds"))\n      @DeprecatedSinceKotlin(warningSince = "1.6", errorSince = "1.8")\n      public fun milliseconds(value: Int):
Duration = value.toDuration(DurationUnit.MILLISECONDS)\n      /** Returns a [Duration] representing the
specified [value] number of milliseconds. *\n      @SinceKotlin("1.5")\n      @ExperimentalTime\n      @Deprecated("Use 'Long.milliseconds' extension
property from Duration.Companion instead.", ReplaceWith("value.milliseconds",
"kotlin.time.Duration.Companion.milliseconds"))\n      @DeprecatedSinceKotlin(warningSince = "1.6",

```



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errorSince = \"1.8\")\n    public fun milliseconds(value: Long): Duration =
value.toDuration(DurationUnit.MILLISECONDS)\n\n    /**\n    * Returns a [Duration] representing the
specified [value] number of milliseconds.\n    *\n    * @throws IllegalArgumentException if the provided
`Double` [value] is `NaN`.\n    */\n    @SinceKotlin(\"1.5\")\n    @ExperimentalTime\n    @Deprecated(\"Use 'Double.milliseconds' extension property from Duration.Companion instead.\",
ReplaceWith(\"value.milliseconds\", \"kotlin.time.Duration.Companion.milliseconds\"))\n
@DeprecatedSinceKotlin(warningSince = \"1.6\", errorSince = \"1.8\")\n    public fun milliseconds(value:
Double): Duration = value.toDuration(DurationUnit.MILLISECONDS)\n\n    /** Returns a [Duration]
representing the specified [value] number of seconds. *\n    @SinceKotlin(\"1.5\")\n    @ExperimentalTime\n    @Deprecated(\"Use 'Int.seconds' extension property from Duration.Companion instead.\",
ReplaceWith(\"value.seconds\", \"kotlin.time.Duration.Companion.seconds\"))\n
@DeprecatedSinceKotlin(warningSince = \"1.6\", errorSince = \"1.8\")\n    public fun seconds(value: Int):
Duration = value.toDuration(DurationUnit.SECONDS)\n\n    /** Returns a [Duration] representing the specified
[value] number of seconds. *\n    @SinceKotlin(\"1.5\")\n    @ExperimentalTime\n    @Deprecated(\"Use
'Long.seconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.seconds\",
\"kotlin.time.Duration.Companion.seconds\"))\n
@DeprecatedSinceKotlin(warningSince = \"1.6\", errorSince = \"1.8\")\n    public fun seconds(value: Long):
Duration = value.toDuration(DurationUnit.SECONDS)\n\n    /**\n    * Returns a [Duration]
representing the specified [value] number of seconds.\n    *\n    * @throws IllegalArgumentException if the
provided `Double` [value] is `NaN`.\n    */\n    @SinceKotlin(\"1.5\")\n    @ExperimentalTime\n    @Deprecated(\"Use 'Double.seconds' extension property from Duration.Companion instead.\",
ReplaceWith(\"value.seconds\", \"kotlin.time.Duration.Companion.seconds\"))\n
@DeprecatedSinceKotlin(warningSince = \"1.6\", errorSince = \"1.8\")\n    public fun seconds(value: Double):
Duration = value.toDuration(DurationUnit.SECONDS)\n\n    /** Returns a [Duration] representing the
specified [value] number of minutes. *\n    @SinceKotlin(\"1.5\")\n    @ExperimentalTime\n    @Deprecated(\"Use 'Int.minutes' extension property from Duration.Companion instead.\",
ReplaceWith(\"value.minutes\", \"kotlin.time.Duration.Companion.minutes\"))\n
@DeprecatedSinceKotlin(warningSince = \"1.6\", errorSince = \"1.8\")\n    public fun minutes(value:
Int): Duration = value.toDuration(DurationUnit.MINUTES)\n\n    /** Returns a [Duration] representing the
specified [value] number of minutes. *\n    @SinceKotlin(\"1.5\")\n    @ExperimentalTime\n    @Deprecated(\"Use 'Long.minutes' extension property from Duration.Companion instead.\",
ReplaceWith(\"value.minutes\", \"kotlin.time.Duration.Companion.minutes\"))\n
@DeprecatedSinceKotlin(warningSince = \"1.6\", errorSince = \"1.8\")\n    public fun minutes(value: Long):
Duration = value.toDuration(DurationUnit.MINUTES)\n\n    /**\n    * Returns a [Duration] representing the
specified [value] number of minutes.\n    *\n    * @throws IllegalArgumentException if the provided `Double`
[value] is `NaN`.\n    */\n    @SinceKotlin(\"1.5\")\n    @ExperimentalTime\n    @Deprecated(\"Use
'Double.minutes' extension property from Duration.Companion instead.\", ReplaceWith(\"value.minutes\",
\"kotlin.time.Duration.Companion.minutes\"))\n
    @DeprecatedSinceKotlin(warningSince = \"1.6\", errorSince = \"1.8\")\n    public fun minutes(value:
Double): Duration = value.toDuration(DurationUnit.MINUTES)\n\n    /** Returns a [Duration] representing the
specified [value] number of hours. *\n    @SinceKotlin(\"1.5\")\n    @ExperimentalTime\n    @Deprecated(\"Use 'Int.hours' extension property from Duration.Companion instead.\",
ReplaceWith(\"value.hours\", \"kotlin.time.Duration.Companion.hours\"))\n
@DeprecatedSinceKotlin(warningSince = \"1.6\", errorSince = \"1.8\")\n    public fun hours(value: Int):
Duration = value.toDuration(DurationUnit.HOURS)\n\n    /** Returns a [Duration] representing the specified [value]
number of hours. *\n    @SinceKotlin(\"1.5\")\n    @ExperimentalTime\n    @Deprecated(\"Use
'Long.hours' extension property from Duration.Companion instead.\", ReplaceWith(\"value.hours\",
\"kotlin.time.Duration.Companion.hours\"))\n
    @DeprecatedSinceKotlin(warningSince

```

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= `1.6`, errorSince = `1.8`))\n    public fun hours(value: Long): Duration =
value.toDuration(DurationUnit.HOURS)\n\n    /**\n     * Returns a [Duration] representing the specified
[value] number of hours.\n     *\n     * @throws IllegalArgumentException if the provided `Double` [value] is
`NaN`.\n     */\n    @SinceKotlin(`1.5`)\n    @ExperimentalTime\n    @Deprecated("Use 'Double.hours'
extension property from Duration.Companion instead.", ReplaceWith("`value.hours`",
`kotlin.time.Duration.Companion.hours`))\n    @DeprecatedSinceKotlin(warningSince = `1.6`, errorSince =
`1.8`)\n    public fun hours(value: Double): Duration = value.toDuration(DurationUnit.HOURS)\n\n    /**
Returns a [Duration] representing the specified [value] number of days. *\n    @SinceKotlin("1.5")\n
@ExperimentalTime\n    @Deprecated("Use 'Int.days' extension property from Duration.Companion instead.",
ReplaceWith("`value.days`",
`kotlin.time.Duration.Companion.days`))\n    @DeprecatedSinceKotlin(warningSince = `1.6`, errorSince =
`1.8`)\n    public fun days(value: Int): Duration = value.toDuration(DurationUnit.DAYS)\n\n    /** Returns a
[Duration] representing the specified [value] number of days. *\n    @SinceKotlin("1.5")\n
@ExperimentalTime\n    @Deprecated("Use 'Long.days' extension property from Duration.Companion
instead.", ReplaceWith("`value.days`", `kotlin.time.Duration.Companion.days`))\n
@DeprecatedSinceKotlin(warningSince = `1.6`, errorSince = `1.8`)\n    public fun days(value: Long):
Duration = value.toDuration(DurationUnit.DAYS)\n\n    /**\n     * Returns a [Duration] representing the
specified [value] number of days.\n     *\n     * @throws IllegalArgumentException if the provided `Double`
[value] is `NaN`.\n     */\n    @SinceKotlin("1.5")\n    @ExperimentalTime\n    @Deprecated("Use
'Double.days' extension property from Duration.Companion instead.", ReplaceWith("`value.days`",
`kotlin.time.Duration.Companion.days`))\n    @DeprecatedSinceKotlin(warningSince = `1.6`, errorSince =
`1.8`)\n    public fun days(value: Double): Duration = value.toDuration(DurationUnit.DAYS)\n\n    /**\n
     * Parses a string that represents a duration and returns the parsed [Duration] value.\n     *\n     * The following
formats are accepted:\n     *\n     * - ISO-8601 Duration format, e.g. `P1DT2H3M4.058S`, see [toIsoString] and
[parseIsoString].\n     * - The format of string returned by the default [Duration.toString] and `toString` in a
specific unit,\n     * e.g. `10s`, `1h 30m` or `-(1h 30m)`.\n     *\n     * @throws IllegalArgumentException if
the string doesn't represent a duration in any of the supported formats.\n     * @sample
samples.time.Durations.parse\n     */\n    public fun parse(value: String): Duration
= try {\n        parseDuration(value, strictIso = false)\n    } catch (e: IllegalArgumentException) {\n
throw IllegalArgumentException("Invalid duration string format: '$value'.", e)\n    }\n\n    /**\n     * Parses
a string that represents a duration in a restricted ISO-8601 composite representation\n     * and returns the parsed
[Duration] value.\n     * Composite representation is a relaxed version of ISO-8601 duration format that
supports\n     * negative durations and negative values of individual components.\n     *\n     * The following
restrictions are imposed:\n     *\n     * - The only allowed non-time designator is days (`D`). `Y` (years), `W`
(weeks), and `M` (months) are not supported.\n     * - Day is considered to be exactly 24 hours (24-hour clock
time scale).\n     * - Alternative week-based representation `[P][number][W]` is not supported.\n     *\n
     * @throws IllegalArgumentException
if the string doesn't represent a duration in ISO-8601 format.\n     * @sample
samples.time.Durations.parseIsoString\n     */\n    public fun parseIsoString(value: String): Duration = try {\n
        parseDuration(value, strictIso = true)\n    } catch (e: IllegalArgumentException) {\n        throw
IllegalArgumentException("Invalid ISO duration string format: '$value'.", e)\n    }\n\n    /**\n     * Parses a
string that represents a duration and returns the parsed [Duration] value,\n     * or `null` if the string doesn't
represent a duration in any of the supported formats.\n     *\n     * The following formats are accepted:\n
     *\n     * - Restricted ISO-8601 duration composite representation, e.g. `P1DT2H3M4.058S`, see [toIsoString] and
[parseIsoString].\n     * - The format of string returned by the default [Duration.toString] and `toString` in a
specific unit,\n     * e.g. `10s`, `1h 30m` or `-(1h 30m)`.\n     *\n     * @sample samples.time.Durations.parse\n
     */\n    public fun parseOrNull(value: String): Duration? =
try {\n        parseDuration(value, strictIso = false)\n    } catch (e: IllegalArgumentException) {\n        null\n

```

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}
}

/**
 * Parses a string that represents a duration in restricted ISO-8601 composite representation
 * and returns the parsed [Duration] value or `null` if the string doesn't represent a duration in the format
 * acceptable by [parseIsoString].
 * @sample samples.time.Durations.parseIsoString
 */
public fun parseIsoStringOrNull(value: String): Duration? = try {
    parseDuration(value, strictIso = true)
} catch (e: IllegalArgumentException) {
    null
} // arithmetic operators

/** Returns
the negative of this value.
public operator fun unaryMinus(): Duration = durationOf(-value,
unitDiscriminator)

/**
 * Returns a duration whose value is the sum of this and [other] duration values.
 * @throws
IllegalArgumentExcepion if the operation results in an undefined value for the given arguments,
 * e.g. when
adding infinite durations of different sign.
public operator fun plus(other: Duration): Duration {
when {
    this.isInfinite() -> {
        if (other.isFinite() || (this.rawValue xor other.rawValue >= 0))
            return this
        else
            throw IllegalArgumentException("Summing infinite durations of
different signs yields an undefined result.")
    }
    other.isInfinite() -> return other
}
return when {
    this.unitDiscriminator == other.unitDiscriminator -> {
        val result = this.value +
other.value // never overflows long, but can overflow long63
        when {
            isInNanos()
-> durationOfNanosNormalized(result)
        else ->
durationOfMillisNormalized(result)
    }
}
this.isInMillis() ->
addValuesMixedRanges(this.value, other.value)
else ->
addValuesMixedRanges(other.value,
this.value)
}
}
private fun addValuesMixedRanges(thisMillis: Long, otherNanos: Long): Duration
{
    val otherMillis = nanosToMillis(otherNanos)
    val resultMillis = thisMillis + otherMillis
    return if
(resultMillis in -MAX_NANOS_IN_MILLIS..MAX_NANOS_IN_MILLIS) {
        val otherNanoRemainder =
otherNanos - millisToNanos(otherMillis)
        durationOfNanos(millisToNanos(resultMillis) +
otherNanoRemainder)
    } else {
        durationOfMillis(resultMillis.coerceIn(-MAX_MILLIS,
MAX_MILLIS))
    }
}

/**
 * Returns a duration whose value is the difference
between this and [other] duration values.
 * @throws IllegalArgumentExcepion if the operation results in
an undefined value for the given arguments,
 * e.g. when subtracting infinite durations of the same sign.
public operator fun minus(other: Duration): Duration = this + (-other)

/**
 * Returns a duration whose
value is this duration value multiplied by the given [scale] number.
 * @throws IllegalArgumentExcepion
if the operation results in an undefined value for the given arguments,
 * e.g. when multiplying an infinite
duration by zero.
public operator fun times(scale: Int): Duration {
    if (isInfinite())
        return
when {
    scale == 0 -> throw IllegalArgumentException("Multiplying infinite duration by zero yields an
undefined result.")
    scale > 0 -> this
    else -> -this
}
}
if (scale == 0)
return ZERO

    val value = value
    val result = value * scale
    return if (isInNanos()) {
        if (value in
(MAX_NANOS / Int.MIN_VALUE)..(-MAX_NANOS / Int.MIN_VALUE))
            // can't overflow nanos
range for any scale
            durationOfNanos(result)
        } else {
            if (result / scale == value) {
                durationOfNanosNormalized(result)
            } else {
                val millis = nanosToMillis(value)
                val remNanos = value - millisToNanos(millis)
                val resultMillis = millis * scale
                val totalMillis = resultMillis + nanosToMillis(remNanos * scale)
                if (resultMillis / scale == millis &&
totalMillis xor resultMillis >= 0)
                    durationOfMillis(totalMillis.coerceIn(-
MAX_MILLIS..MAX_MILLIS))
                } else {
                    if (value.sign * scale.sign > 0) INFINITE
                    else NEG_INFINITE
                }
            }
        }
    } else {
        if (result / scale == value) {
            durationOfMillis(result.coerceIn(-MAX_MILLIS..MAX_MILLIS))
        } else {
            if (value.sign *
scale.sign > 0) INFINITE else NEG_INFINITE
        }
    }
}

/**
 * Returns a duration whose
value is this duration value multiplied by the given [scale] number.
 * @throws
IllegalArgumentExcepion if the operation results in an undefined value for the given arguments,
 * e.g. when

```

```

multiplying an infinite duration by zero.\n
*/\n
public operator fun times(scale: Double): Duration {\n
    val intScale = scale.roundToInt()\n
    if (intScale.toDouble() == scale) {\n
        return times(intScale)\n
    }\n
    val unit = storageUnit\n
    val result = toDouble(unit)\n
    * scale\n
    return result.toDuration(unit)\n
}\n\n
/**\n
 * Returns a duration whose value is this duration value divided by the given [scale] number.\n
 * @throws IllegalArgumentException if the operation results in an undefined value for the given arguments,\n
 * e.g. when dividing zero duration by zero.\n
*/\n
public operator fun div(scale: Int): Duration {\n
    if (scale == 0) {\n
        return when {\n
            isPositive() -> INFINITE\n
            isNegative() -> NEG_INFINITE\n
            else -> throw\n
            IllegalArgumentException("Dividing zero duration by zero yields an undefined result.")\n
        }\n
    }\n
    if (isInNanos()) {\n
        return durationOfNanos(value / scale)\n
    } else {\n
        if (isInfinite())\n
            return this * scale.sign\n
        val result = value / scale\n
        if (result in -MAX_NANOS_IN_MILLIS..MAX_NANOS_IN_MILLIS) {\n
            val rem = millisToNanos(value - (result * scale)) / scale\n
            return durationOfNanos(millisToNanos(result) + rem)\n
        }\n
        return durationOfMillis(result)\n
    }\n
}\n\n
/**\n
 * Returns a duration whose value is this duration value divided by the given [scale] number.\n
 * @throws IllegalArgumentException if the operation results in an undefined value for the given arguments,\n
 * e.g. when dividing an infinite duration by infinity or zero duration by zero.\n
*/\n
public operator fun div(scale: Double): Duration {\n
    val intScale = scale.roundToInt()\n
    if (intScale.toDouble() == scale && intScale != 0) {\n
        return div(intScale)\n
    }\n
    val unit = storageUnit\n
    val result = toDouble(unit) / scale\n
    return result.toDuration(unit)\n
}\n\n
/** Returns a number that is the ratio of this and [other] duration values. */\n
public operator fun div(other: Duration): Double\n
{\n
    val coarserUnit = maxOf(this.storageUnit, other.storageUnit)\n
    return this.toDouble(coarserUnit) / other.toDouble(coarserUnit)\n
}\n\n
/** Returns true, if the duration value is less than zero. */\n
public fun isNegative(): Boolean = rawValue < 0\n\n
/** Returns true, if the duration value is greater than zero. */\n
public fun isPositive(): Boolean = rawValue > 0\n\n
/** Returns true, if the duration value is infinite. */\n
public fun isInfinite(): Boolean = rawValue == INFINITE.rawValue || rawValue == NEG_INFINITE.rawValue\n\n
/** Returns true, if the duration value is finite. */\n
public fun isFinite(): Boolean = !isInfinite()\n\n
/** Returns the absolute value of this value. The returned value is always non-negative. */\n
public val absoluteValue: Duration\n
get() = if (isNegative()) -this else this\n\n
override fun compareTo(other: Duration): Int {\n
    val compareBits = this.rawValue xor other.rawValue\n
    if (compareBits < 0 || compareBits.toInt() and 1 == 0) // different signs or same sign/same range\n
        return this.rawValue.compareTo(other.rawValue)\n
    // same sign/different ranges\n
    val r = this.unitDiscriminator - other.unitDiscriminator // compare ranges\n
    return if (isNegative()) -r else r\n
}\n\n
// splitting to components\n\n
/**\n
 * Splits this duration into days, hours, minutes, seconds, and nanoseconds and executes the given [action] with these components.\n
 * The result of [action] is returned as the result of this function.\n
 * - `nanoseconds` represents the whole number of nanoseconds in this duration, and its absolute value is less than 1_000_000_000;\n
 * - `seconds` represents the whole number of seconds in this duration, and its absolute value is less than 60;\n
 * - `minutes` represents the whole number of minutes in this duration, and its absolute value is less than 60;\n
 * - `hours` represents the whole number of hours in this duration, and its absolute value is less than 24;\n
 * - `days` represents the whole number of days in this duration.\n
 * Infinite durations are represented as either [Long.MAX_VALUE] days, or [Long.MIN_VALUE] days (depending on the sign of infinity),\n
 * and zeroes in the lower components.\n
*/\n
public inline fun <T> toComponents(action: (days: Long, hours: Int, minutes: Int, seconds: Int, nanoseconds: Int) -> T): T {\n
    contract { callsInPlace(action, InvocationKind.EXACTLY_ONCE) }\n
    return action(inWholeDays, hoursComponent, minutesComponent, secondsComponent, nanosecondsComponent)\n
}\n\n
/**\n
 * Splits this duration into hours, minutes, seconds, and nanoseconds and executes the given [action] with these components.\n
 * The result of [action] is returned as the result of this function.\n
 * - `nanoseconds` represents the whole number of nanoseconds in this duration, and its absolute value is less

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    than 1_000_000_000;\n    * - `seconds` represents the whole number of seconds in this duration, and its absolute
    value is less than 60;\n    * - `minutes` represents the whole number of minutes in this duration, and its absolute
    value is less than 60;\n    * - `hours` represents the whole number of hours in this duration.\n    *\n    * Infinite
    durations are represented as either [Long.MAX_VALUE] hours, or [Long.MIN_VALUE] hours (depending on the
    sign of infinity),\n    * and zeroes in the lower components.\n    */\n    public inline fun <T> toComponents(action:
    (hours: Long, minutes: Int, seconds: Int, nanoseconds: Int) -> T): T {\n        contract { callsInPlace(action,
    InvocationKind.EXACTLY_ONCE) }\n        return action(inWholeHours, minutesComponent, secondsComponent,
    nanosecondsComponent)\n    }\n\n    /**\n    * Splits this duration into minutes, seconds, and nanoseconds and
    executes the given [action] with these components.\n    * The result of [action] is returned
    as the result of this function.\n    *\n    * - `nanoseconds` represents the whole number of nanoseconds in this
    duration, and its absolute value is less than 1_000_000_000;\n    * - `seconds` represents the whole number of
    seconds in this duration, and its absolute value is less than 60;\n    * - `minutes` represents the whole number of
    minutes in this duration.\n    *\n    * Infinite durations are represented as either [Long.MAX_VALUE] minutes, or
    [Long.MIN_VALUE] minutes (depending on the sign of infinity),\n    * and zeroes in the lower components.\n    */\n    public inline fun <T> toComponents(action: (minutes: Long, seconds: Int, nanoseconds: Int) -> T): T {\n        contract { callsInPlace(action, InvocationKind.EXACTLY_ONCE) }\n        return action(inWholeMinutes,
    secondsComponent, nanosecondsComponent)\n    }\n\n    /**\n    * Splits this duration into seconds, and
    nanoseconds and executes the given [action] with these components.\n    * The result of [action]
    is returned as the result of this function.\n    *\n    * - `nanoseconds` represents the whole number of nanoseconds
    in this duration, and its absolute value is less than 1_000_000_000;\n    * - `seconds` represents the whole number
    of seconds in this duration.\n    *\n    * Infinite durations are represented as either [Long.MAX_VALUE] seconds,
    or [Long.MIN_VALUE] seconds (depending on the sign of infinity),\n    * and zero nanoseconds.\n    */\n    public inline fun <T> toComponents(action: (seconds: Long, nanoseconds: Int) -> T): T {\n        contract {
    callsInPlace(action, InvocationKind.EXACTLY_ONCE) }\n        return action(inWholeSeconds,
    nanosecondsComponent)\n    }\n\n    @PublishedApi\n    internal val hoursComponent: Int\n        get() = if
    (isInfinite()) 0 else (inWholeHours % 24).toInt()\n\n    @PublishedApi\n    internal val minutesComponent: Int\n        get() = if (isInfinite()) 0 else (inWholeMinutes % 60).toInt()\n\n    @PublishedApi\n    internal val
    secondsComponent:
    Int\n        get() = if (isInfinite()) 0 else (inWholeSeconds % 60).toInt()\n\n    @PublishedApi\n    internal val
    nanosecondsComponent: Int\n        get() = when {\n            isInfinite() -> 0\n            isInMillis() ->
    millisToNanos(value % 1_000).toInt()\n            else -> (value % 1_000_000_000).toInt()\n        }\n\n    /**\n    * Returns the value of this duration expressed as a [Double] number of the
    specified [unit].\n    *\n    * The operation may involve rounding when the result cannot be represented exactly with
    a [Double] number.\n    *\n    * An infinite duration value is converted either to [Double.POSITIVE_INFINITY] or
    [Double.NEGATIVE_INFINITY] depending on its sign.\n    */\n    public fun toDouble(unit: DurationUnit):
    Double {\n        return when (rawValue) {\n            INFINITE.rawValue -> Double.POSITIVE_INFINITY\n            NEG_INFINITE.rawValue -> Double.NEGATIVE_INFINITY\n            else -> {\n
                // TODO: whether it's ok to convert to Double before scaling\n
                convertDurationUnit(value.toDouble(), storageUnit, unit)\n            }\n        }\n    }\n\n    /**\n    * Returns the value
    of this duration expressed as a [Long] number of the specified [unit].\n    *\n    * If the result doesn't fit in the range
    of [Long] type, it is coerced into that range:\n    * - [Long.MIN_VALUE] is returned if it's less than
    `Long.MIN_VALUE`,\n    * - [Long.MAX_VALUE] is returned if it's greater than `Long.MAX_VALUE`.\n    *\n    * An infinite duration value is converted either to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending on
    its sign.\n    */\n    public fun toLong(unit: DurationUnit): Long {\n        return when (rawValue) {\n            INFINITE.rawValue -> Long.MAX_VALUE\n            NEG_INFINITE.rawValue -> Long.MIN_VALUE\n            else -> convertDurationUnit(value, storageUnit, unit)\n        }\n    }\n\n    /**\n    * Returns the value of this
    duration

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expressed as an [Int] number of the specified [unit].\n
*\n
* If the result doesn't fit in the range of [Int] type, it
is coerced into that range:\n
* - [Int.MIN_VALUE] is returned if it's less than `Int.MIN_VALUE`,\n
* - [Int.MAX_VALUE] is returned if it's greater than `Int.MAX_VALUE`.\n
*\n
* An infinite duration value is
converted either to [Int.MAX_VALUE] or [Int.MIN_VALUE] depending on its sign.\n
*/\n
public fun
toInt(unit: DurationUnit): Int =\n
    toLong(unit).coerceIn(Int.MIN_VALUE.toLong(),
Int.MAX_VALUE.toLong()).toInt()\n
/** The value of this duration expressed as a [Double] number of days.
*/\n
@ExperimentalTime\n
@Deprecated("Use inWholeDays property instead or convert toDouble(DAYS) if a
double value is required.", ReplaceWith("toDouble(DurationUnit.DAYS)"))\n
@DeprecatedSinceKotlin(warningSince = "1.5", errorSince = "1.8")\n
public val inDays: Double get() =
toDouble(DurationUnit.DAYS)\n
/** The value of
this duration expressed as a [Double] number of hours. */\n
@ExperimentalTime\n
@Deprecated("Use
inWholeHours property instead or convert toDouble(HOURS) if a double value is required.",
ReplaceWith("toDouble(DurationUnit.HOURS)"))\n
@DeprecatedSinceKotlin(warningSince = "1.5",
errorSince = "1.8")\n
public val inHours: Double get() = toDouble(DurationUnit.HOURS)\n
/** The value of
this duration expressed as a [Double] number of minutes. */\n
@ExperimentalTime\n
@Deprecated("Use
inWholeMinutes property instead or convert toDouble(MINUTES) if a double value is required.",
ReplaceWith("toDouble(DurationUnit.MINUTES)"))\n
@DeprecatedSinceKotlin(warningSince = "1.5",
errorSince = "1.8")\n
public val inMinutes: Double get() = toDouble(DurationUnit.MINUTES)\n
/** The
value of this duration expressed as a [Double] number of seconds. */\n
@ExperimentalTime\n
@Deprecated("Use inWholeSeconds property instead or convert toDouble(SECONDS) if
a double value is required.", ReplaceWith("toDouble(DurationUnit.SECONDS)"))\n
@DeprecatedSinceKotlin(warningSince = "1.5", errorSince = "1.8")\n
public val inSeconds: Double get() =
toDouble(DurationUnit.SECONDS)\n
/** The value of this duration expressed as a [Double] number of
milliseconds. */\n
@ExperimentalTime\n
@Deprecated("Use inWholeMilliseconds property instead or convert
toDouble(MILLISECONDS) if a double value is required.",
ReplaceWith("toDouble(DurationUnit.MILLISECONDS)"))\n
@DeprecatedSinceKotlin(warningSince = "1.5",
errorSince = "1.8")\n
public val inMilliseconds: Double get() = toDouble(DurationUnit.MILLISECONDS)\n
/** The value of this duration expressed as a [Double] number of microseconds. */\n
@ExperimentalTime\n
@Deprecated("Use inWholeMicroseconds property instead or convert toDouble(MICROSECONDS) if a double
value is required.", ReplaceWith("toDouble(DurationUnit.MICROSECONDS)"))\n
@DeprecatedSinceKotlin(warningSince
= "1.5", errorSince = "1.8")\n
public val inMicroseconds: Double get() =
toDouble(DurationUnit.MICROSECONDS)\n
/** The value of this duration expressed as a [Double] number of
nanoseconds. */\n
@ExperimentalTime\n
@Deprecated("Use inWholeNanoseconds property instead or convert
toDouble(NANOSECONDS) if a double value is required.",
ReplaceWith("toDouble(DurationUnit.NANOSECONDS)"))\n
@DeprecatedSinceKotlin(warningSince =
"1.5", errorSince = "1.8")\n
public val inNanoseconds: Double get() =
toDouble(DurationUnit.NANOSECONDS)\n
/**\n
* The value of this duration expressed as a [Long]
number of days.\n
*\n
* An infinite duration value is converted either to [Long.MAX_VALUE] or
[Long.MIN_VALUE] depending on its sign.\n
*/\n
public val inWholeDays: Long\n
get() =
toLong(DurationUnit.DAYS)\n
/**\n
* The value of this duration expressed as a [Long] number of hours.\n
*\n
* An infinite duration value
is converted either to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n
*/\n
public val
inWholeHours: Long\n
get() = toLong(DurationUnit.HOURS)\n
/**\n
* The value of this duration
expressed as a [Long] number of minutes.\n
*\n
* An infinite duration value is converted either to
[Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n
*/\n
public val inWholeMinutes:
Long\n
get() = toLong(DurationUnit.MINUTES)\n
/**\n
* The value of this duration expressed as a
[Long] number of seconds.\n
*\n
* An infinite duration value is converted either to [Long.MAX_VALUE] or

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[Long.MIN_VALUE] depending on its sign.\n
*/\n
public val inWholeSeconds: Long\n
get() =
toLong(DurationUnit.SECONDS)\n\n
/**\n
 * The value of this duration expressed as a [Long] number of
milliseconds.\n
*/\n
 * An infinite duration value is converted either to [Long.MAX_VALUE] or
[Long.MIN_VALUE] depending on its sign.\n
*/\n
public val inWholeMilliseconds: Long\n
get() {\n
return if (isInMillis() && isFinite()) value
else toLong(DurationUnit.MILLISECONDS)\n
}\n\n
/**\n
 * The value of this duration expressed as a
[Long] number of microseconds.\n
*/\n
 * If the result doesn't fit in the range of [Long] type, it is coerced into
that range:\n
 * - [Long.MIN_VALUE] is returned if it's less than `Long.MIN_VALUE`,\n
 * -
[Long.MAX_VALUE] is returned if it's greater than `Long.MAX_VALUE`.\n
*/\n
 * An infinite duration value
is converted either to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n
*/\n
public val
inWholeMicroseconds: Long\n
get() = toLong(DurationUnit.MICROSECONDS)\n\n
/**\n
 * The value of
this duration expressed as a [Long] number of nanoseconds.\n
*/\n
 * If the result doesn't fit in the range of
[Long] type, it is coerced into that range:\n
 * - [Long.MIN_VALUE] is returned if it's less than
`Long.MIN_VALUE`,\n
 * - [Long.MAX_VALUE] is returned if it's greater than `Long.MAX_VALUE`.\n
*/\n
 * An infinite duration value is converted either to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending on
its sign.\n
*/\n
public val inWholeNanoseconds: Long\n
get() {\n
val value = value\n
return
when {\n
isInNanos() -> value\n
value > Long.MAX_VALUE / NANOS_IN_MILLIS ->
Long.MAX_VALUE\n
value < Long.MIN_VALUE / NANOS_IN_MILLIS -> Long.MIN_VALUE\n
else -> millisToNanos(value)\n
}\n
}\n\n
// shortcuts\n\n
/**\n
 * Returns the value of this
duration expressed as a [Long] number of nanoseconds.\n
*/\n
 * If the value doesn't fit in the range of [Long]
type, it is coerced into that range, see the conversion [Double.toLong] for details.\n
*/\n
 * The range of
durations that can be expressed as a `Long` number of nanoseconds is approximately \u00b1292
years.\n
*/\n
 @ExperimentalTime\n
 @Deprecated("Use inWholeNanoseconds property instead.",
ReplaceWith("this.inWholeNanoseconds"))\n
 @DeprecatedSinceKotlin(warningSince = "1.5", errorSince =
"1.8")\n
public fun toLongNanoseconds(): Long = inWholeNanoseconds\n\n
/**\n
 * Returns the value of
this duration expressed as a [Long] number of milliseconds.\n
*/\n
 * The value is coerced to the range of [Long]
type, if it doesn't fit in that range, see the conversion [Double.toLong] for details.\n
*/\n
 * The range of
durations that can be expressed as a `Long` number of milliseconds is approximately \u00b1292 million years.\n
*/\n
 @ExperimentalTime\n
 @Deprecated("Use inWholeMilliseconds property instead.",
ReplaceWith("this.inWholeMilliseconds"))\n
 @DeprecatedSinceKotlin(warningSince = "1.5", errorSince =
"1.8")\n
public fun toLongMilliseconds(): Long = inWholeMilliseconds\n\n
/**\n
 * Returns a string
representation of this
duration value\n
 * expressed as a combination of numeric components, each in its own unit.\n
*/\n
 * Each
component is a number followed by the unit abbreviated name: `d`, `h`, `m`, `s`:\n
 * `5h`, `1d 12h`, `1h 0m
30.340s`.\n
 * The last component, usually seconds, can be a number with a fractional part.\n
*/\n
 * If the
duration is less than a second, it is represented as a single number\n
 * with one of sub-second units: `ms`
(milliseconds), `us` (microseconds), or `ns` (nanoseconds):\n
 * `140.884ms`, `500us`, `24ns`.\n
*/\n
 * A
negative duration is prefixed with `-` sign and, if it consists of multiple components, surrounded with parentheses:\n
 * `-12m` and `-(1h 30m)`.\n
*/\n
 * Special cases:\n
 * - an infinite duration is formatted as `"Infinity"` or
`"-Infinity"` without a unit.\n
*/\n
 * It's recommended to use [toIsoString] that uses more strict ISO-8601
format instead of this `toString`\n
 * when you want to
convert a duration to a string in cases of serialization, interchange, etc.\n
*/\n
 * @sample
samples.time.Durations.toStringDefault\n
*/\n
override fun toString(): String = when (rawValue) {\n
0L ->
"0s"\n
INFINITE.rawValue -> "Infinity"\n
NEG_INFINITE.rawValue -> "-Infinity"\n
else -> {\n
val isNegative = isNegative()\n
buildString {\n
if (isNegative) append('-')\n
absoluteValue.toComponents { days, hours, minutes, seconds, nanoseconds ->\n
val hasDays = days !=
0L\n
val hasHours = hours != 0\n
val hasMinutes = minutes != 0\n
val
hasSeconds = seconds != 0 || nanoseconds != 0\n
var components = 0\n
if (hasDays) {\n

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        append(days).append('d')\n
        components++\n
        }\n
        if (hasHours ||
        (hasDays && (hasMinutes
        || hasSeconds))) {\n
            if (components++ > 0) append(' ')\n
            append(hours).append('h')\n
            }\n
            if (hasMinutes || (hasSeconds && (hasHours || hasDays))) {\n
                if
                (components++ > 0) append(' ')\n
                append(minutes).append('m')\n
                }\n
                if
                (hasSeconds) {\n
                    if (components++ > 0) append(' ')\n
                    when {\n
                        seconds != 0 || hasDays || hasHours || hasMinutes ->\n
                            appendFractional(seconds, nanoseconds, 9,
                            \'s\', isoZeroes = false)\n
                            nanoseconds >= 1_000_000 ->\n
                                appendFractional(nanoseconds / 1_000_000, nanoseconds % 1_000_000, 6, \'ms\', isoZeroes = false)\n
                                nanoseconds >= 1_000 ->\n
                                    appendFractional(nanoseconds / 1_000, nanoseconds
                                    % 1_000, 3, \'us\', isoZeroes = false)\n
                                    else ->\n
                                        append(nanoseconds).append(\'ns\')\n
                                        }\n
                                        }\n
                                        if (isNegative && components
                                        > 1) insert(1, \'(\').append('\'))\n
                                        }\n
                                        }\n
                                        }\n
                                        }\n
                                        private fun
                                        StringBuilder.appendFractional(whole: Int, fractional: Int, fractionalSize: Int, unit: String, isoZeroes: Boolean) {\n
                                            append(whole)\n
                                            if (fractional != 0) {\n
                                                append('\')\n
                                                val fracString =
                                                fractional.toString().padStart(fractionalSize, '0')\n
                                                val nonZeroDigits = fracString.indexOfLast { it != '0' } +
                                                1\n
                                                when {\n
                                                    !isoZeroes && nonZeroDigits < 3 -> appendRange(fracString, 0, nonZeroDigits)\n
                                                    else -> appendRange(fracString, 0, ((nonZeroDigits + 2) / 3) * 3)\n
                                                }\n
                                                }\n
                                                append(unit)\n
                                            }\n
                                        }\n
                                        /**\n
                                        * Returns a string representation
                                        of this duration value expressed in the given [unit]\n
                                        * and formatted with the specified [decimals] number of
                                        digits after decimal point.\n
                                        * Special cases:\n
                                        * - an infinite duration is formatted as `Infinity` or `-
                                        Infinity` without a unit.\n
                                        * @param decimals the number of digits after decimal point to show. The value
                                        must be non-negative.\n
                                        * No more than 12 decimals will be shown, even if a larger number is requested.\n
                                        * @return the value of duration in the specified [unit] followed by that unit abbreviated name: `d`, `h`, `m`, `s`,
                                        `ms`, `us`, or `ns`.\n
                                        * @throws IllegalArgumentException if [decimals] is less than zero.\n
                                        * @sample samples.time.Durations.toStringDecimals\n
                                        */\n
                                        public fun toString(unit: DurationUnit, decimals: Int
                                        = 0): String {\n
                                            require(decimals >= 0) { "decimals must be not negative, but was $decimals" }\n
                                            val
                                            number = toDouble(unit)\n
                                            if (number.isInfinite()) return number.toString()\n
                                            return formatToExactDecimals(number,
                                            decimals.coerceAtMost(12)) + unit.shortName()\n
                                        }\n
                                        }\n
                                        /**\n
                                        * Returns an ISO-8601 based string
                                        representation of this duration.\n
                                        * The returned value is presented in the format `PTm>s.fS`, where `h`,
                                        `m`, `s` are the integer components of this duration (see [toComponents])\n
                                        * and `f` is a fractional part of second.
                                        Depending on the roundness of the value the fractional part can be formatted with either\n
                                        * 0, 3, 6, or 9 decimal
                                        digits.\n
                                        * The infinite duration is represented as `PT9999999999999999H` which is larger than any
                                        possible finite duration in Kotlin.\n
                                        * Negative durations are indicated with the sign `-` in the beginning of
                                        the returned string, for example, `-PT5M30S`.\n
                                        * @sample samples.time.Durations.toIsoString\n
                                        */\n
                                        public fun toIsoString(): String = buildString {\n
                                            if (isNegative()) append('-')\n
                                            append("PT")\n
                                            this@Duration.absoluteValue.toComponents { hours, minutes, seconds, nanoseconds -
                                            >\n
                                                @Suppress("NAME_SHADOWING")\n
                                                var hours = hours\n
                                                if (isInfinite()) {\n
                                                    // use large enough value instead of Long.MAX_VALUE\n
                                                    hours = 9_999_999_999_999\n
                                                }\n
                                                val hasHours = hours != 0L\n
                                                val hasSeconds = seconds != 0 || nanoseconds != 0\n
                                                val hasMinutes =
                                                minutes != 0 || (hasSeconds && hasHours)\n
                                                if (hasHours) {\n
                                                    append(hours).append('H')\n
                                                }\n
                                                if (hasMinutes) {\n
                                                    append(minutes).append('M')\n
                                                }\n
                                                if (hasSeconds ||
                                                (!hasHours && !hasMinutes)) {\n
                                                    appendFractional(seconds, nanoseconds, 9, \'S\', isoZeroes = true)\n
                                                }\n
                                                }\n
                                                }\n
                                                }\n
                                                }\n
                                                // constructing from number of units\n
                                                // extension functions\n
                                                /** Returns a [Duration]
                                                equal to this
                                                [Int] number of the specified [unit].
                                                */\n
                                                @SinceKotlin("1.6")\n
                                                @WasExperimental(ExperimentalTime::class)\n
                                                public fun Int.toDuration(unit:
    
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DurationUnit): Duration {n    return if (unit <= DurationUnit.SECONDS) {n
durationOfNanos(convertDurationUnitOverflow(this.toLong(), unit, DurationUnit.NANOSECONDS))n    } else{n
    toLong().toDuration(unit)n    }n    /** Returns a [Duration] equal to this [Long] number of the specified [unit].
*/n    @SinceKotlin("1.6")n    @WasExperimental(ExperimentalTime::class)n    public fun Long.toDuration(unit:
DurationUnit): Duration {n    val maxNsInUnit = convertDurationUnitOverflow(MAX_NANOS,
DurationUnit.NANOSECONDS, unit)n    if (this in -maxNsInUnit..maxNsInUnit) {n    return
durationOfNanos(convertDurationUnitOverflow(this, unit, DurationUnit.NANOSECONDS))n    } else {n    val
    millis = convertDurationUnit(this, unit, DurationUnit.MILLISECONDS)n    return
durationOfMillis(millis.coerceIn(-MAX_MILLIS, MAX_MILLIS))n    }n    }n    /**n
    * Returns a [Duration] equal to this [Double] number of the specified [unit].n    *n    * Depending on its magnitude,
    the value is rounded to an integer number of nanoseconds or milliseconds.n    *n    * @throws
    IllegalArgumentException if this `Double` value is `NaN`.n
*/n    @SinceKotlin("1.6")n    @WasExperimental(ExperimentalTime::class)n    public fun Double.toDuration(unit:
DurationUnit): Duration {n    val valueInNs = convertDurationUnit(this, unit, DurationUnit.NANOSECONDS)n
    require(!valueInNs.isNaN()) { "Duration value cannot be NaN." }n    val nanos = valueInNs.roundToLong()n
    return if (nanos in -MAX_NANOS..MAX_NANOS) {n    durationOfNanos(nanos)n    } else {n    val millis =
    convertDurationUnit(this, unit, DurationUnit.MILLISECONDS).roundToLong()n
    durationOfMillisNormalized(millis)n    }n    }n    // constructing from number of unitsn    // deprecated extension
    propertiesn    /** Returns a [Duration] equal to this [Int] number of nanoseconds.
*/n    @SinceKotlin("1.3")n    @ExperimentalTimen    @Deprecated("Use
    'Int.nanoseconds' extension property from Duration.Companion instead.", ReplaceWith("this.nanoseconds",
    "kotlin.time.Duration.Companion.nanoseconds"))n    @DeprecatedSinceKotlin(warningSince = "1.5", errorSince =
    "1.8")n    public val Int.nanoseconds get() = toDuration(DurationUnit.NANOSECONDS)n    /** Returns a
    [Duration] equal to this [Long] number of nanoseconds.
*/n    @SinceKotlin("1.3")n    @ExperimentalTimen    @Deprecated("Use 'Long.nanoseconds' extension property from
    Duration.Companion instead.", ReplaceWith("this.nanoseconds",
    "kotlin.time.Duration.Companion.nanoseconds"))n    @DeprecatedSinceKotlin(warningSince = "1.5", errorSince =
    "1.8")n    public val Long.nanoseconds get() = toDuration(DurationUnit.NANOSECONDS)n    /** Returns a
    [Duration] equal to this [Double] number of nanoseconds.n    *n    * @throws IllegalArgumentException if this
    [Double] value is `NaN`.n
*/n    @SinceKotlin("1.3")n    @ExperimentalTimen    @Deprecated("Use
    'Double.nanoseconds' extension property from Duration.Companion instead.", ReplaceWith("this.nanoseconds",
    "kotlin.time.Duration.Companion.nanoseconds"))n    @DeprecatedSinceKotlin(warningSince = "1.5", errorSince =
    "1.8")n    public val Double.nanoseconds get() = toDuration(DurationUnit.NANOSECONDS)n    /** Returns a
    [Duration] equal to this [Int] number of microseconds.
*/n    @SinceKotlin("1.3")n    @ExperimentalTimen    @Deprecated("Use 'Int.microseconds' extension property from
    Duration.Companion instead.", ReplaceWith("this.microseconds",
    "kotlin.time.Duration.Companion.microseconds"))n    @DeprecatedSinceKotlin(warningSince = "1.5", errorSince
    = "1.8")n    public val Int.microseconds get() = toDuration(DurationUnit.MICROSECONDS)n    /** Returns a
    [Duration] equal to this [Long] number of microseconds.
*/n    @SinceKotlin("1.3")n    @ExperimentalTimen    @Deprecated("Use 'Long.microseconds' extension property
    from Duration.Companion instead.", ReplaceWith("this.microseconds",
    "kotlin.time.Duration.Companion.microseconds"))n    @DeprecatedSinceKotlin(warningSince
    = "1.5", errorSince = "1.8")n    public val Long.microseconds get() =
    toDuration(DurationUnit.MICROSECONDS)n    /**n    * Returns a [Duration] equal to this [Double] number of
    microseconds.n    *n    * @throws IllegalArgumentException if this [Double] value is `NaN`.n
*/n    @SinceKotlin("1.3")n    @ExperimentalTimen    @Deprecated("Use 'Double.microseconds' extension property
    from Duration.Companion instead.", ReplaceWith("this.microseconds",
    "kotlin.time.Duration.Companion.microseconds"))n    @DeprecatedSinceKotlin(warningSince = "1.5", errorSince

```

```

= `1.8`)npublic val Double.microseconds get() = toDuration(DurationUnit.MICROSECONDS)n\n\n/** Returns a
[Duration] equal to this [Int] number of milliseconds.
*\n@SinceKotlin("1.3")\n@ExperimentalTime\n@Deprecated("Use 'Int.milliseconds' extension property from
Duration.Companion instead.", ReplaceWith("this.milliseconds",
`kotlin.time.Duration.Companion.milliseconds`))\n@DeprecatedSinceKotlin(warningSince
= `1.5`, errorSince = `1.8`)npublic val Int.milliseconds get() =
toDuration(DurationUnit.MILLISECONDS)n\n\n/** Returns a [Duration] equal to this [Long] number of
milliseconds. *\n@SinceKotlin("1.3")\n@ExperimentalTime\n@Deprecated("Use 'Long.milliseconds' extension
property from Duration.Companion instead.", ReplaceWith("this.milliseconds",
`kotlin.time.Duration.Companion.milliseconds`))\n@DeprecatedSinceKotlin(warningSince = `1.5`, errorSince =
`1.8`)npublic val Long.milliseconds get() = toDuration(DurationUnit.MILLISECONDS)n\n\n/** Returns a
[Duration] equal to this [Double] number of milliseconds.\n *\n * @throws IllegalArgumentException if this
[Double] value is `NaN`.\n *\n@SinceKotlin("1.3")\n@ExperimentalTime\n@Deprecated("Use
'Double.milliseconds' extension property from Duration.Companion instead.", ReplaceWith("this.milliseconds",
`kotlin.time.Duration.Companion.milliseconds`))\n@DeprecatedSinceKotlin(warningSince
= `1.5`, errorSince = `1.8`)npublic val Double.milliseconds get() =
toDuration(DurationUnit.MILLISECONDS)n\n\n/** Returns a [Duration] equal to this [Int] number of seconds.
*\n@SinceKotlin("1.3")\n@ExperimentalTime\n@Deprecated("Use 'Int.seconds' extension property from
Duration.Companion instead.", ReplaceWith("this.seconds",
`kotlin.time.Duration.Companion.seconds`))\n@DeprecatedSinceKotlin(warningSince = `1.5`, errorSince =
`1.8`)npublic val Int.seconds get() = toDuration(DurationUnit.SECONDS)n\n\n/** Returns a [Duration] equal to
this [Long] number of seconds. *\n@SinceKotlin("1.3")\n@ExperimentalTime\n@Deprecated("Use
'Long.seconds' extension property from Duration.Companion instead.", ReplaceWith("this.seconds",
`kotlin.time.Duration.Companion.seconds`))\n@DeprecatedSinceKotlin(warningSince = `1.5`, errorSince =
`1.8`)npublic val Long.seconds get() = toDuration(DurationUnit.SECONDS)n\n\n/** Returns a [Duration]
equal to this
[Double] number of seconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n
*\n@SinceKotlin("1.3")\n@ExperimentalTime\n@Deprecated("Use 'Double.seconds' extension property from
Duration.Companion instead.", ReplaceWith("this.seconds",
`kotlin.time.Duration.Companion.seconds`))\n@DeprecatedSinceKotlin(warningSince = `1.5`, errorSince =
`1.8`)npublic val Double.seconds get() = toDuration(DurationUnit.SECONDS)n\n\n/** Returns a [Duration]
equal to this [Int] number of minutes. *\n@SinceKotlin("1.3")\n@ExperimentalTime\n@Deprecated("Use
'Int.minutes' extension property from Duration.Companion instead.", ReplaceWith("this.minutes",
`kotlin.time.Duration.Companion.minutes`))\n@DeprecatedSinceKotlin(warningSince = `1.5`, errorSince =
`1.8`)npublic val Int.minutes get() = toDuration(DurationUnit.MINUTES)n\n\n/** Returns a [Duration] equal to
this [Long] number of minutes. *\n@SinceKotlin("1.3")\n@ExperimentalTime\n@Deprecated("Use
'Long.minutes' extension property from Duration.Companion instead.", ReplaceWith("this.minutes",
`kotlin.time.Duration.Companion.minutes`))\n@DeprecatedSinceKotlin(warningSince = `1.5`, errorSince =
`1.8`)npublic val Long.minutes get() = toDuration(DurationUnit.MINUTES)n\n\n/** Returns a [Duration]
equal to this [Double] number of minutes.\n *\n * @throws IllegalArgumentException if this [Double] value is
`NaN`.\n *\n@SinceKotlin("1.3")\n@ExperimentalTime\n@Deprecated("Use 'Double.minutes' extension
property from Duration.Companion instead.", ReplaceWith("this.minutes",
`kotlin.time.Duration.Companion.minutes`))\n@DeprecatedSinceKotlin(warningSince = `1.5`, errorSince =
`1.8`)npublic val Double.minutes get() = toDuration(DurationUnit.MINUTES)n\n\n/** Returns a [Duration]
equal to this [Int] number of hours. *\n@SinceKotlin("1.3")\n@ExperimentalTime\n@Deprecated("Use
'Int.hours' extension property from Duration.Companion instead.", ReplaceWith("this.hours",
`kotlin.time.Duration.Companion.hours`))\n@DeprecatedSinceKotlin(warningSince = `1.5`, errorSince =
`1.8`)npublic val Int.hours get() = toDuration(DurationUnit.HOURS)n\n\n/** Returns a [Duration] equal to this

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[Long] number of hours. */n@SinceKotlin("1.3")\n@ExperimentalTime\n@Deprecated("Use 'Long.hours'
extension property from Duration.Companion instead.", ReplaceWith("this.hours",
"\"kotlin.time.Duration.Companion.hours\"))\n@DeprecatedSinceKotlin(warningSince = "1.5", errorSince =
"1.8")\npublic val Long.hours get() = toDuration(DurationUnit.HOURS)\n\n/**\n * Returns a [Duration] equal to
this [Double] number of hours.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n
*/\n@SinceKotlin("1.3")\n@ExperimentalTime\n@Deprecated("Use 'Double.hours' extension property from
Duration.Companion instead.", ReplaceWith("this.hours",
"\"kotlin.time.Duration.Companion.hours\"))\n@DeprecatedSinceKotlin(warningSince = "1.5", errorSince =
"1.8")\npublic
val Double.hours get() = toDuration(DurationUnit.HOURS)\n\n/** Returns a [Duration] equal to this [Int]
number of days. */\n@SinceKotlin("1.3")\n@ExperimentalTime\n@Deprecated("Use 'Int.days' extension
property from Duration.Companion instead.", ReplaceWith("this.days",
"\"kotlin.time.Duration.Companion.days\"))\n@DeprecatedSinceKotlin(warningSince = "1.5", errorSince =
"1.8")\npublic val Int.days get() = toDuration(DurationUnit.DAYS)\n\n/** Returns a [Duration] equal to this
[Long] number of days. */\n@SinceKotlin("1.3")\n@ExperimentalTime\n@Deprecated("Use 'Long.days'
extension property from Duration.Companion instead.", ReplaceWith("this.days",
"\"kotlin.time.Duration.Companion.days\"))\n@DeprecatedSinceKotlin(warningSince = "1.5", errorSince =
"1.8")\npublic val Long.days get() = toDuration(DurationUnit.DAYS)\n\n/**\n *\n * Returns a [Duration] equal to this
[Double] number of days.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n
*/\n@SinceKotlin("1.3")\n@ExperimentalTime\n@Deprecated("Use 'Double.days' extension property from
Duration.Companion instead.", ReplaceWith("this.days",
"\"kotlin.time.Duration.Companion.days\"))\n@DeprecatedSinceKotlin(warningSince = "1.5", errorSince =
"1.8")\npublic val Double.days get() = toDuration(DurationUnit.DAYS)\n\n/** Returns a duration whose value
is the specified [duration] value multiplied by this number.
*/\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalTime::class)\n@kotlin.internal.InlineOnly\npublic
inline operator fun Int.times(duration: Duration): Duration = duration * this\n\n/**\n *\n * Returns a duration whose
value is the specified [duration] value multiplied by this number.\n *\n * The operation may involve rounding when
the result cannot be represented exactly with a [Double] number.\n *\n * @throws IllegalArgumentException if the
operation results in a `NaN` value.\n
*/\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalTime::class)\n@kotlin.internal.InlineOnly\npublic
inline operator fun Double.times(duration: Duration): Duration = duration * this\n\n\nprivate fun
parseDuration(value: String, strictIso: Boolean): Duration {\n    var length = value.length\n    if (length == 0) throw
IllegalArgumentException("The string is empty")\n    var index = 0\n    var result = Duration.ZERO\n    val
infinityString = "Infinity"\n    when (value[index]) {\n        '+', '-' -> index++\n    }\n    val hasSign = index > 0\n
val isNegative = hasSign && value.startsWith('-')\n    when {\n        length <= index ->\n            throw
IllegalArgumentException("No components")\n        value[index] == 'P' -> {\n            if (++index == length) throw
IllegalArgumentException()\n            val nonDigitSymbols = "+-.\n            var isTimeComponent = false\n
var prevUnit: DurationUnit? = null\n            while (index < length) {\n                if (value[index] == 'T') {\n
                    if (isTimeComponent\n                        || ++index == length) throw
IllegalArgumentException()\n                    isTimeComponent = true\n
continue\n                }\n                val component = value.substringWhile(index) { it in '0'..'9' || it in
nonDigitSymbols }\n                if (component.isEmpty()) throw
IllegalArgumentException()\n                index += component.length\n
                val unitChar = value.getOrNull(index) { throw
IllegalArgumentException("Missing unit for value
$component") }\n                index++\n                val unit = durationUnitByIsoChar(unitChar, isTimeComponent)\n
                if (prevUnit != null && prevUnit <= unit) throw
IllegalArgumentException("Unexpected order of duration
components")\n                prevUnit = unit\n                val dotIndex = component.indexOf('.')\n                if (unit ==
DurationUnit.SECONDS && dotIndex > 0) {\n                    val whole = component.substring(0, dotIndex)\n
                    result += parseOverLongIsoComponent(whole).toDuration(unit)\n

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        result += component.substring(dotIndex).toDouble().toDuration(unit)\n        } else {\n
result += parseOverLongIsoComponent(component).toDuration(unit)\n        }\n        }\n        }\n        strictIso
->\n        throw IllegalArgumentException()\n        value.regionMatches(index, infinityString, 0, length =
maxOf(length - index, infinityString.length), ignoreCase = true) -> {\n        result = Duration.INFINITE\n        }\n
        else -> {\n        // parse default string format\n        var prevUnit: DurationUnit? = null\n        var
afterFirst = false\n        var allowSpaces = !hasSign\n        if (hasSign && value[index] == '(' && value.last()
== ')') {\n        allowSpaces = true\n        if (++index == --length) throw IllegalArgumentException("\nNo
components\n")\n        }\n        while (index < length) {\n        if
(afterFirst && allowSpaces) {\n        index = value.skipWhile(index) { it == ' ' }\n        }\n
afterFirst = true\n        val component = value.substringWhile(index) { it in '0'..'9' || it == '.' }\n        if
(component.isEmpty()) throw IllegalArgumentException()\n        index += component.length\n        val
unitName = value.substringWhile(index) { it in 'a'..'z' }\n        index += unitName.length\n        val unit =
durationUnitByShortName(unitName)\n        if (prevUnit != null && prevUnit <= unit) throw
IllegalArgumentException("\nUnexpected order of duration components\n")\n        prevUnit = unit\n        val
dotIndex = component.indexOf('.')\n        if (dotIndex > 0) {\n        val whole = component.substring(0,
dotIndex)\n        result += whole.toLong().toDuration(unit)\n        result +=
component.substring(dotIndex).toDouble().toDuration(unit)\n
        if (index < length) throw IllegalArgumentException("\nFractional component must be last\n")\n
} else {\n        result += component.toLong().toDuration(unit)\n        }\n        }\n        }\n        }\n
return if (isNegative) -result else result\n}\n\nprivate fun parseOverLongIsoComponent(value: String): Long {\n
val length = value.length\n    var startIndex = 0\n    if (length > 0 && value[0] in "+-") startIndex++\n    if ((length
- startIndex) > 16 && (startIndex..value.lastIndex).all { value[it] in '0'..'9' }) {\n    // all chars are digits, but more
than ceiling(log10(MAX_MILLIS / 1000)) of them\n    return if (value[0] == '-') Long.MIN_VALUE else
Long.MAX_VALUE\n    }\n    // TODO: replace with just toLong after min JDK becomes 8\n    return if
(value.startsWith("+")) value.drop(1).toLong() else value.toLong()\n}\n\nprivate inline fun
String.substringWhile(startIndex: Int, predicate:
(Char) -> Boolean): String =\n    substring(startIndex, skipWhile(startIndex, predicate))\nprivate inline fun
String.skipWhile(startIndex: Int, predicate: (Char) -> Boolean): Int {\n    var i = startIndex\n    while (i < length &&
predicate(this[i])) i++\n    return i\n}\n\n// The ranges are chosen so that they are:\n// - symmetric relative to
zero: this greatly simplifies operations with sign, e.g. unaryMinus and minus.\n// - non-overlapping, but adjacent:
the first value that doesn't fit in nanos range, can be exactly represented in millis.\n\ninternal const val
NANOS_IN_MILLIS = 1_000_000\n// maximum number duration can store in nanosecond range\ninternal const
val MAX_NANOS = Long.MAX_VALUE / 2 / NANOS_IN_MILLIS * NANOS_IN_MILLIS - 1 // ends in
..._999_999\n// maximum number duration can store in millisecond range, also encodes an infinite value\ninternal
const val MAX_MILLIS = Long.MAX_VALUE / 2\n// MAX_NANOS expressed in milliseconds\nprivate const val
MAX_NANOS_IN_MILLIS
= MAX_NANOS / NANOS_IN_MILLIS\nprivate fun nanosToMillis(nanos: Long): Long = nanos /
NANOS_IN_MILLIS\nprivate fun millisToNanos(millis: Long): Long = millis * NANOS_IN_MILLIS\nprivate
fun durationOfNanos(normalNanos: Long) = Duration(normalNanos shl 1)\nprivate fun
durationOfMillis(normalMillis: Long) = Duration((normalMillis shl 1) + 1)\nprivate fun durationOf(normalValue:
Long, unitDiscriminator: Int) = Duration((normalValue shl 1) + unitDiscriminator)\nprivate fun
durationOfNanosNormalized(nanos: Long) =\n    if (nanos in -MAX_NANOS..MAX_NANOS) {\n
durationOfNanos(nanos)\n    } else {\n    durationOfMillis(nanosToMillis(nanos))\n    }\nprivate fun
durationOfMillisNormalized(millis: Long) =\n    if (millis in -
MAX_NANOS_IN_MILLIS..MAX_NANOS_IN_MILLIS) {\n    durationOfNanos(millisToNanos(millis))\n    }
else {\n    durationOfMillis(millis.coerceIn(-MAX_MILLIS, MAX_MILLIS))\n    }\n\ninternal expect val
durationAssertionsEnabled: Boolean\n\ninternal expect

```

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fun formatToExactDecimals(value: Double, decimals: Int): String\ninternal expect fun formatUpToDecimals(value:
Double, decimals: Int): String\n"/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n@file:kotlin.jvm.JvmName("UnsignedKt")\npackage
kotlin\n\n@PublishedApi\ninternal fun uintCompare(v1: Int, v2: Int): Int = (v1 xor
Int.MIN_VALUE).compareTo(v2 xor Int.MIN_VALUE)\n@PublishedApi\ninternal fun ulongCompare(v1: Long,
v2: Long): Int = (v1 xor Long.MIN_VALUE).compareTo(v2 xor Long.MIN_VALUE)\n\n@PublishedApi\ninternal
fun uintDivide(v1: UInt, v2: UInt): UInt = (v1.toLong() / v2.toLong()).toUInt()\n@PublishedApi\ninternal fun
uintRemainder(v1: UInt, v2: UInt): UInt = (v1.toLong() % v2.toLong()).toUInt()\n\n// Division and remainder are
based on Guava's UnsignedLongs implementation\n// Copyright 2011 The Guava
Authors\n\n@PublishedApi\ninternal
fun ulongDivide(v1: ULong, v2: ULong): ULong {\n    val dividend = v1.toLong()\n    val divisor = v2.toLong()\n
if (divisor < 0) { // i.e., divisor >= 2^63\n        return if (v1 < v2) ULong(0) else ULong(1)\n    }\n    //
Optimization - use signed division if both dividend and divisor < 2^63\n    if (dividend >= 0) {\n        return
ULong(dividend / divisor)\n    }\n    // Otherwise, approximate the quotient, check, and correct if necessary.\n
val quotient = ((dividend ushr 1) / divisor) shl 1\n    val rem = dividend - quotient * divisor\n    return
ULong(quotient + if (ULong(rem) >= ULong(divisor)) 1 else 0)\n}\n\n@PublishedApi\ninternal fun
ulongRemainder(v1: ULong, v2: ULong): ULong {\n    val dividend = v1.toLong()\n    val divisor = v2.toLong()\n
if (divisor < 0) { // i.e., divisor >= 2^63\n        return if (v1 < v2) {\n            v1 // dividend < divisor\n        } else {\n
            v1 - v2 // dividend >= divisor\n        }\n    }\n    // Optimization - use signed modulus if both dividend and divisor < 2^63\n
if (dividend >= 0) {\n        return
ULong(dividend % divisor)\n    }\n    // Otherwise, approximate the quotient, check, and correct if necessary.\n
val quotient = ((dividend ushr 1) / divisor) shl 1\n    val rem = dividend - quotient * divisor\n    return ULong(rem -
if (ULong(rem) >= ULong(divisor)) divisor else 0)\n}\n\n@PublishedApi\ninternal fun doubleToUInt(v: Double):
UInt = when {\n    v.isNaN() -> 0u\n    v <= UInt.MIN_VALUE.toDouble() -> UInt.MIN_VALUE\n    v >=
UInt.MAX_VALUE.toDouble() -> UInt.MAX_VALUE\n    v <= Int.MAX_VALUE -> v.toInt().toUInt()\n    else -
> (v - Int.MAX_VALUE).toInt().toUInt() + Int.MAX_VALUE.toUInt() // Int.MAX_VALUE < v <
UInt.MAX_VALUE\n}\n\n@PublishedApi\ninternal fun doubleToULong(v: Double): ULong = when {\n
v.isNaN() -> 0u\n    v <= ULong.MIN_VALUE.toDouble() -> ULong.MIN_VALUE\n    v >=
ULong.MAX_VALUE.toDouble() -> ULong.MAX_VALUE\n    v < Long.MAX_VALUE
-> v.toLong().toULong()\n    // Real values from Long.MAX_VALUE to (Long.MAX_VALUE + 1) are not
representable in Double, so don't handle them.\n    else -> (v - 9223372036854775808.0).toLong().toULong() +
9223372036854775808uL // Long.MAX_VALUE + 1 < v <
ULong.MAX_VALUE\n}\n\n@PublishedApi\ninternal fun uintToDouble(v: Int): Double = (v and
Int.MAX_VALUE).toDouble() + (v ushr 31 shl 30).toDouble() * 2\n\n@PublishedApi\ninternal fun
ulongToDouble(v: Long): Double = (v ushr 11).toDouble() * 2048 + (v and 2047)\n\n\ninternal fun
ulongToString(v: Long): String = ulongToString(v, 10)\n\ninternal fun ulongToString(v: Long, base: Int): String {\n
if (v >= 0) return v.toString(base)\n    var quotient = ((v ushr 1) / base) shl 1\n    var rem = v - quotient * base\n
if (rem >= base) {\n        rem -= base\n        quotient += 1\n    }\n    return quotient.toString(base) +
rem.toString(base)\n}\n\n"/*\n * Copyright 2010-2016 JetBrains s.r.o.\n */\n * Licensed under the
Apache License, Version 2.0 (the "License");\n * you may not use this file except in compliance with the
License.\n * You may obtain a copy of the License at\n * http://www.apache.org/licenses/LICENSE-2.0\n *
Unless required by applicable law or agreed to in writing, software\n * distributed under the License is distributed
on an "AS IS" BASIS,\n * WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or
implied.\n * See the License for the specific language governing permissions and\n * limitations under the
License.\n */\n\npackage kotlin.internal\n\n/**\n * Specifies that the corresponding type parameter is not used for
unsafe operations such as casts or 'is' checks\n * That means it's completely safe to use generic types as argument for
such parameter.\n

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*\/n@Target(AnnotationTarget.TYPE_PARAMETER)\n@Retention(AnnotationRetention.BINARY)\ninternal
annotation class PureReifiable\n/n/**\n * Specifies that the corresponding built-in method exists depending on
platform.\n
 * Current implementation for JVM looks whether method with same JVM descriptor exists in the module JDK.\n *
For example MutableMap.remove(K, V) available only if corresponding\n * method
'java/util/Map.remove(Ljava/lang/Object;Ljava/lang/Object;)Z' is defined in JDK (i.e. for major versions >= 8)\n
*\/n@Target(AnnotationTarget.FUNCTION)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation
class PlatformDependent\n/n/**\n * When applied to a function or property, enables a compiler optimization that
evaluates that function or property\n * at compile-time and replaces calls to it with the computed result.\n
*\/n@Target(AnnotationTarget.CONSTRUCTOR, AnnotationTarget.FUNCTION,
AnnotationTarget.PROPERTY)\n@Retention(AnnotationRetention.BINARY)\n@SinceKotlin("1.7")\ninternal
annotation class IntrinsicConstEvaluation\n"/**\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\n
*\/n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("CollectionsKt")\n\npackage
kotlin.collections\n/n/**\n * Given an [iterator] function constructs an [Iterable] instance that returns values through
the [Iterator]\n * provided by that function.\n * @sample samples.collections.Iterables.Building.iterable\n
*\/n@kotlin.internal.InlineOnly\n\npublic inline fun <T> Iterable(crossinline iterator: () -> Iterator<T>): Iterable<T>
= object : Iterable<T> {\n    override fun iterator(): Iterator<T> = iterator()\n}\n/n/**\n * A wrapper over another
[Iterable] (or any other object that can produce an [Iterator]) that returns\n * an indexing iterator.\n *\/n\ninternal class
IndexingIterable<out T>(private val iteratorFactory: () -> Iterator<T>) : Iterable<IndexedValue<T>> {\n    override
fun iterator(): Iterator<IndexedValue<T>> = IndexingIterator(iteratorFactory())\n}\n/n/**\n * Returns the size of
this iterable if it is known, or
`null` otherwise.\n *\/n\n@PublishedApi\n\ninternal fun <T> Iterable<T>.collectionSizeOrNull(): Int? = if (this is
Collection<*>) this.size else null\n/n/**\n * Returns the size of this iterable if it is known, or the specified [default]
value otherwise.\n *\/n\n@PublishedApi\n\ninternal fun <T> Iterable<T>.collectionSizeOrDefault(default: Int): Int = if
(this is Collection<*>) this.size else default\n/n/**\n * Returns a single list of all elements from all collections in
the given collection.\n * @sample samples.collections.Iterables.Operations.flattenIterable\n *\/n\npublic fun <T>
Iterable<Iterable<T>>.flatten(): List<T> {\n    val result = ArrayList<T>()\n    for (element in this) {\n
result.addAll(element)\n    }\n    return result\n}\n/n/**\n * Returns a pair of lists, where\n * *first* list is built from
the first values of each pair from this collection,\n * *second* list is built from the second values of each pair from
this collection.\n * @sample samples.collections.Iterables.Operations.unzipIterable\n
*\/n\npublic fun <T, R> Iterable<Pair<T, R>>.unzip(): Pair<List<T>, List<R>> {\n    val expectedSize =
collectionSizeOrDefault(10)\n    val listT = ArrayList<T>(expectedSize)\n    val listR =
ArrayList<R>(expectedSize)\n    for (pair in this) {\n        listT.add(pair.first)\n        listR.add(pair.second)\n    }\n
return listT to listR\n}\n"/**\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n
*\/n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("SequencesKt")\n\npackage
kotlin.sequences\n\nimport kotlin.random.Random\n/n/**\n * Given an [iterator] function constructs a [Sequence]
that returns values through the [Iterator]\n * provided by that function.\n * The values are evaluated lazily, and the
sequence is potentially infinite.\n *\/n\n * @sample samples.collections.Sequences.Building.sequenceFromIterator\n
*\/n\n@kotlin.internal.InlineOnly\n\npublic inline fun <T> Sequence(crossinline iterator: () -> Iterator<T>):
Sequence<T> = object : Sequence<T> {\n    override fun iterator(): Iterator<T> = iterator()\n}\n/n/**\n * Creates a
sequence that returns all elements from this iterator. The sequence is constrained to be iterated only once.\n *\/n\n *
@sample samples.collections.Sequences.Building.sequenceFromIterator\n *\/n\npublic fun <T>
Iterator<T>.asSequence(): Sequence<T> = Sequence { this }.constrainOnce()\n/n/**\n * Creates a sequence that
returns the specified values.\n *\/n\n * @sample samples.collections.Sequences.Building.sequenceOfValues\n

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*^public fun <T> sequenceOf(vararg elements: T): Sequence<T> = if (elements.isEmpty()) emptySequence() else
elements.asSequence()\n\n/**\n * Returns an empty sequence.\n */\npublic fun <T> emptySequence():
Sequence<T> = EmptySequence\n\nprivate object EmptySequence : Sequence<Nothing>,
DropTakeSequence<Nothing> {\n    override fun iterator():
Iterator<Nothing> = EmptyIterator\n    override fun drop(n: Int) = EmptySequence\n    override fun take(n: Int) =
EmptySequence\n}\n\n/**\n * Returns this sequence if it's not `null` and the empty sequence otherwise.\n */
@sample samples.collections.Sequences.Usage.sequenceOrEmpty\n\n*^@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>?.orEmpty():
Sequence<T> = this ?: emptySequence()\n\n/**\n * Returns a sequence that iterates through the elements either of
this sequence\n * or, if this sequence turns out to be empty, of the sequence returned by [defaultValue] function.\n */
*^@sample samples.collections.Sequences.Usage.sequenceIfEmpty\n *^@SinceKotlin("1.3")\npublic fun
<T> Sequence<T>.ifEmpty(defaultValue: () -> Sequence<T>): Sequence<T> = sequence {\n    val iterator =
this@ifEmpty.iterator()\n    if (iterator.hasNext()) {\n        yieldAll(iterator)\n    } else {\n
yieldAll(defaultValue())\n    }\n}\n\n/**\n * Returns a sequence
of all elements from all sequences in this sequence.\n */\n * The operation is _intermediate_ and _stateless_.\n */\n
@sample samples.collections.Sequences.Transformations.flattenSequenceOfSequences\n *^public fun <T>
Sequence<Sequence<T>>.flatten(): Sequence<T> = flatten { it.iterator() }\n\n/**\n * Returns a sequence of all
elements from all iterables in this sequence.\n */\n * The operation is _intermediate_ and _stateless_.\n */\n
@sample samples.collections.Sequences.Transformations.flattenSequenceOfLists\n\n*^@kotlin.jvm.JvmName("flattenSequenceOfIterable")\npublic fun <T> Sequence<Iterable<T>>.flatten():
Sequence<T> = flatten { it.iterator() }\n\nprivate fun <T, R> Sequence<T>.flatten(iterator: (T) -> Iterator<R>):
Sequence<R> {\n    if (this is TransformingSequence<*, *>) {\n        return (this as TransformingSequence<*,
T>).flatten(iterator)\n    }\n    return FlatteningSequence(this, { it }, iterator)\n}\n\n/**\n * Returns a pair of lists,
where\n * *first* list
is built from the first values of each pair from this sequence,\n * *second* list is built from the second values of
each pair from this sequence.\n */\n * The operation is _terminal_.\n */\n * @sample
samples.collections.Sequences.Transformations.unzip\n *^public fun <T, R> Sequence<Pair<T, R>>.unzip():
Pair<List<T>, List<R>> {\n    val listT = ArrayList<T>()\n    val listR = ArrayList<R>()\n    for (pair in this) {\n
listT.add(pair.first)\n        listR.add(pair.second)\n    }\n    return listT to listR\n}\n\n/**\n * Returns a sequence that
yields elements of this sequence randomly shuffled.\n */\n * Note that every iteration of the sequence returns
elements in a different order.\n */\n * The operation is _intermediate_ and _stateful_.\n */\n
*^@SinceKotlin("1.4")\npublic fun <T> Sequence<T>.shuffled(): Sequence<T> = shuffled(Random)\n\n/**\n * Returns a sequence that yields elements of this sequence randomly shuffled\n * using the specified [random]
instance as the source of randomness.\n */\n * Note that every iteration of the sequence returns elements in a different order.\n */\n * The operation is
_intermediate_ and _stateful_.\n */\n *^@SinceKotlin("1.4")\npublic fun <T> Sequence<T>.shuffled(random:
Random): Sequence<T> = sequence<T> {\n    val buffer = toMutableList()\n    while (buffer.isNotEmpty()) {\n
val j = random.nextInt(buffer.size)\n        val last = buffer.removeLast()\n        val value = if (j < buffer.size)
buffer.set(j, last) else last\n        yield(value)\n    }\n}\n\n/**\n * A sequence that returns the values from the
underlying [sequence] that either match or do not match\n * the specified [predicate].\n */\n * @param sendWhen If
`true`, values for which the predicate returns `true` are returned. Otherwise,\n * values for which the predicate
returns `false` are returned\n */\ninternal class FilteringSequence<T>(\n    private val sequence: Sequence<T>,\n    private val sendWhen: Boolean = true,\n    private val predicate: (T) -> Boolean\n)
: Sequence<T> {\n    override fun iterator(): Iterator<T> = object : Iterator<T> {\n        val iterator =
sequence.iterator()\n        var nextState: Int = -1 // -1 for unknown, 0 for done, 1 for continue\n        var nextItem: T?
= null\n        private fun calcNext() {\n            while (iterator.hasNext()) {\n                val item = iterator.next()\n                if (predicate(item) == sendWhen) {\n                    nextItem = item\n                    nextState = 1\n                }\n            }\n            nextState = 0\n        }\n        override fun next(): T {\n            if (nextState

```







```

next(): T {\n      drop()\n      return iterator.next()\n    }\n    override fun hasNext(): Boolean {\n      drop()\n      return iterator.hasNext()\n    }\n  }\n}\n\n/**\n * A sequence that skips the values from the\n underlying [sequence] while the given [predicate] returns `true` and returns\n * all values after that.\n */\ninternal\n class DropWhileSequence<T>\n constructor(\n   private val sequence: Sequence<T>,\n   private val predicate:\n     (T) -> Boolean\n ) : Sequence<T> {\n   override fun iterator(): Iterator<T> = object : Iterator<T> {\n     val\n       iterator = sequence.iterator()\n     var dropState: Int = -1 // -1 for not dropping, 1 for nextItem, 0 for normal\n       iteration\n     var nextItem: T? = null\n     private fun drop() {\n       while (iterator.hasNext()) {\n         val item = iterator.next()\n         if (!predicate(item)) {\n           nextItem = item\n           dropState =\n             1\n           return\n         }\n       }\n       dropState = 0\n     }\n     override fun next(): T {\n       if (dropState == -1)\n         drop()\n       if (dropState == 1) {\n         @Suppress("UNCHECKED_CAST")\n         val result = nextItem as T\n         nextItem = null\n         dropState = 0\n         return result\n       }\n       return iterator.next()\n     }\n   }\n   override\n     fun hasNext(): Boolean {\n       if (dropState == -1)\n         drop()\n       return dropState == 1 ||\n         iterator.hasNext()\n     }\n }\n}\n\ninternal class DistinctSequence<T, K>(\n private val source: Sequence<T>,\n private val keySelector: (T) -> K\n ) : Sequence<T> {\n   override fun iterator(): Iterator<T> =\n     DistinctIterator(source.iterator(), keySelector)\n }\n\nprivate class DistinctIterator<T, K>(\n private val source:\n   Iterator<T>,\n private val keySelector: (T) -> K\n ) : AbstractIterator<T>() {\n   private val observed =\n     HashSet<K>()\n   override fun computeNext() {\n     while (source.hasNext()) {\n       val next =\n         source.next()\n       val key = keySelector(next)\n       if (observed.add(key)) {\n         setNext(next)\n         return\n       }\n     }\n     done()\n   }\n }\n\nprivate class GeneratorSequence<T : Any>(\n private val\n   getInitialValue: () -> T?,\n private val\n   getNextValue: (T) -> T?\n ) : Sequence<T>\n {\n   override fun iterator(): Iterator<T> = object : Iterator<T> {\n     var nextItem: T? = null\n     var nextState:\n       Int = -2 // -2 for initial unknown, -1 for next unknown, 0 for done, 1 for continue\n     private fun calcNext() {\n       nextItem = if (nextState == -2) getInitialValue() else\n         getNextValue(nextItem!!)\n       nextState = if\n         (nextItem == null) 0 else 1\n     }\n     override fun next(): T {\n       if (nextState < 0)\n         calcNext()\n       if (nextState == 0)\n         throw NoSuchElementException()\n       val result =\n         nextItem as T\n       // Do not clean nextItem (to avoid keeping reference on yielded instance) -- need to keep\n         state for getNextValue\n       nextState = -1\n       return result\n     }\n     override fun hasNext():\n       Boolean {\n         if (nextState < 0)\n           calcNext()\n         return nextState == 1\n       }\n   }\n }\n}\n\n/**\n * Returns a\n wrapper sequence that provides values of this sequence, but ensures it can be iterated only one time.\n */\n * The\n operation is _intermediate_ and _stateless_.\n */\n * [IllegalStateException] is thrown on iterating the returned\n sequence for the second time and the following times.\n */\n * \n\npublic fun <T> Sequence<T>.constrainOnce():\n Sequence<T> {\n // as? does not work in js\n //return this as? ConstrainedOnceSequence<T> ?:\n   ConstrainedOnceSequence(this)\n   return if (this is ConstrainedOnceSequence<T>) this else\n     ConstrainedOnceSequence(this)\n }\n\n/**\n * Returns a sequence which invokes the function to calculate the next\n value on each iteration until the function returns `null`.\n */\n * The returned sequence is constrained to be iterated\n only once.\n */\n * @see constrainOnce\n * @see kotlin.sequences.sequence\n */\n * @sample\n samples.collections.Sequences.Building.generateSequence\n */\n\npublic fun <T : Any>\n generateSequence(\n   nextFunction: () -> T?\n ): Sequence<T> {\n   return GeneratorSequence(\n     nextFunction,\n     { nextFunction() }\n   ).constrainOnce()\n }\n\n/**\n * Returns a sequence defined by the starting value [seed] and the\n function [nextFunction],\n */\n * which is invoked to calculate the next value based on the previous one on each\n iteration.\n */\n * The sequence produces values until it encounters first `null` value.\n */\n * If [seed] is `null`, an empty\n sequence is produced.\n */\n * The sequence can be iterated multiple times, each time starting with [seed].\n */\n * \n\n@see kotlin.sequences.sequence\n */\n * @sample\n samples.collections.Sequences.Building.generateSequenceWithSeed\n */\n\n@kotlin.internal.LowPriorityInOverloadResolution\n public fun <T : Any> generateSequence(\n   seed: T?,\n   nextFunction: (T) -> T?\n ): Sequence<T> =\n   if (seed == null)\n     EmptySequence\n   else\n
```

```

GeneratorSequence({ seed }, nextFunction)\n\n/**\n * Returns a sequence defined by the function [seedFunction],
which is invoked to produce the starting value,\n * and the [nextFunction], which
is invoked to calculate the next value based on the previous one on each iteration.\n * The sequence produces
values until it encounters first `null` value.\n * If [seedFunction] returns `null`, an empty sequence is produced.\n\n
* The sequence can be iterated multiple times.\n\n * @see kotlin.sequences.sequence\n * @sample
samples.collections.Sequences.Building.generateSequenceWithLazySeed\n */\npublic fun <T : Any>
generateSequence(seedFunction: () -> T?, nextFunction: (T) -> T?): Sequence<T> =\n
GeneratorSequence(seedFunction, nextFunction)\n\n"/**\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("PreconditionsKt")\n\npackage
kotlin\n\nimport kotlin.contracts.contract\n\n/**\n * Throws an [IllegalArgumentException] if the [value] is false.\n
*\n * @sample samples.misc.Preconditions.failRequireWithLazyMessage\n
*/\n\n@kotlin.internal.InlineOnly\npublic inline fun require(value: Boolean): Unit {\n    contract {\n        returns()
implies value\n    }\n    require(value) { "Failed requirement." }\n}\n\n/**\n * Throws an
[IllegalArgumentException] with the result of calling [lazyMessage] if the [value] is false.\n\n * @sample
samples.misc.Preconditions.failRequireWithLazyMessage\n */\n\n@kotlin.internal.InlineOnly\npublic inline fun
require(value: Boolean, lazyMessage: () -> Any): Unit {\n    contract {\n        returns() implies value\n    }\n    if
(!value) {\n        val message = lazyMessage()\n        throw IllegalArgumentException(message.toString())\n    }\n}\n\n/**\n * Throws an [IllegalArgumentException] if the [value] is null. Otherwise returns the not null value.\n
*\n * @sample samples.misc.Preconditions.failRequireNotNullWithLazyMessage\n
*/\n\n@kotlin.internal.InlineOnly\npublic inline fun <T : Any> requireNotNull(value: T?): T {\n    contract {\n
returns() implies (value != null)\n    }\n    return requireNotNull(value) { "Required value was null." }\n}\n\n/**\n * Throws an
[IllegalArgumentException] with the result of calling [lazyMessage] if the [value] is null. Otherwise\n * returns the
not null value.\n\n * @sample samples.misc.Preconditions.failRequireNotNullWithLazyMessage\n
*/\n\n@kotlin.internal.InlineOnly\npublic inline fun <T : Any> requireNotNull(value: T?, lazyMessage: () -> Any): T
{\n    contract {\n        returns() implies (value != null)\n    }\n    if (value == null) {\n        val message =
lazyMessage()\n        throw IllegalArgumentException(message.toString())\n    } else {\n        return value\n    }\n}\n\n/**\n * Throws an [IllegalStateException] if the [value] is false.\n\n * @sample
samples.misc.Preconditions.failCheckWithLazyMessage\n */\n\n@kotlin.internal.InlineOnly\npublic inline fun
check(value: Boolean): Unit {\n    contract {\n        returns() implies value\n    }\n    check(value) { "Check failed." }\n}\n\n/**\n * Throws
an [IllegalStateException] with the result of calling [lazyMessage] if the [value] is false.\n\n * @sample
samples.misc.Preconditions.failCheckWithLazyMessage\n */\n\n@kotlin.internal.InlineOnly\npublic inline fun
check(value: Boolean, lazyMessage: () -> Any): Unit {\n    contract {\n        returns() implies value\n    }\n    if
(!value) {\n        val message = lazyMessage()\n        throw IllegalStateException(message.toString())\n    }\n}\n\n/**\n * Throws an [IllegalStateException] if the [value] is null. Otherwise\n * returns the not null value.\n\n
*\n * @sample samples.misc.Preconditions.failCheckNotNullWithLazyMessage\n */\n\n@kotlin.internal.InlineOnly\npublic
inline fun <T : Any> checkNotNull(value: T?): T {\n    contract {\n        returns() implies (value != null)\n    }\n    return
checkNotNull(value) { "Required value was null." }\n}\n\n/**\n * Throws an [IllegalStateException] with
the result of calling [lazyMessage] if the [value] is null. Otherwise\n * returns the not null value.\n\n
*\n * @sample samples.misc.Preconditions.failCheckNotNullWithLazyMessage\n */\n\n@kotlin.internal.InlineOnly\npublic
inline fun <T : Any> checkNotNull(value: T?, lazyMessage: () -> Any): T {\n    contract {\n        returns() implies
(value != null)\n    }\n    if (value == null) {\n        val message = lazyMessage()\n        throw
IllegalStateException(message.toString())\n    } else {\n        return value\n    }\n}\n\n/**\n * Throws an
[IllegalStateException] with the given [message].\n\n * @sample samples.misc.Preconditions.failWithError\n
*/\n\n@kotlin.internal.InlineOnly\npublic inline fun error(message: Any): Nothing = throw
IllegalStateException(message.toString())\n\n"/**\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming

```

Language contributors.\n \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n \*  
package kotlin.collections\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt

```
See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\nimport kotlin.js.*\nimport primitiveArrayConcat\nimport withType\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * @sample samples.collections.Collections.Elements.elementAt\n * public actual fun <T> Array<out T>.elementAt(index: Int): T {\n    return elementAtOrElse(index) { throw\n        IndexOutOfBoundsException("index: $index, size: $size")} }\n\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * @sample samples.collections.Collections.Elements.elementAt\n * public actual fun ByteArray.elementAt(index: Int): Byte {\n    return elementAtOrElse(index) { throw IndexOutOfBoundsException("index: $index, size: $size")} }\n\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * @sample samples.collections.Collections.Elements.elementAt\n * public actual fun ShortArray.elementAt(index: Int): Short {\n    return elementAtOrElse(index) { throw\n        IndexOutOfBoundsException("index: $index, size: $size")} }\n\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * @sample samples.collections.Collections.Elements.elementAt\n * public actual fun IntArray.elementAt(index: Int): Int {\n    return elementAtOrElse(index) { throw IndexOutOfBoundsException("index: $index, size: $size")} }\n\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * @sample samples.collections.Collections.Elements.elementAt\n * public actual fun LongArray.elementAt(index: Int): Long {\n    return elementAtOrElse(index) { throw IndexOutOfBoundsException("index: $index, size: $size")} }\n\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * @sample samples.collections.Collections.Elements.elementAt\n * public actual fun FloatArray.elementAt(index: Int): Float {\n    return elementAtOrElse(index) { throw\n        IndexOutOfBoundsException("index: $index, size: $size")} }\n\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * @sample samples.collections.Collections.Elements.elementAt\n * public actual fun DoubleArray.elementAt(index: Int): Double {\n    return elementAtOrElse(index) { throw IndexOutOfBoundsException("index: $index, size: $size")} }\n\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * @sample samples.collections.Collections.Elements.elementAt\n * public actual fun BooleanArray.elementAt(index: Int): Boolean {\n    return elementAtOrElse(index) { throw\n        IndexOutOfBoundsException("index: $index, size: $size")} }\n\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * @sample samples.collections.Collections.Elements.elementAt\n * public actual fun CharArray.elementAt(index: Int): Char {\n    return elementAtOrElse(index) { throw IndexOutOfBoundsException("index: $index, size: $size")} }\n\n * Returns a [List] that wraps the original array.\n * public actual fun <T> Array<out T>.asList(): List<T> {\n    return ArrayList<T>(this.unsafeCast<Array<Any?>>())\n\n * Returns a [List] that wraps the original array.\n * @kotlin.internal.InlineOnly\n * public actual inline fun ByteArray.asList(): List<Byte> {\n    return this.unsafeCast<Array<Byte>>().asList()\n\n * Returns a [List] that wraps the original array.\n * @kotlin.internal.InlineOnly\n * public actual inline fun ShortArray.asList(): List<Short> {\n    return this.unsafeCast<Array<Short>>().asList()\n\n * Returns a [List] that wraps the original array.\n * @kotlin.internal.InlineOnly\n * public actual inline fun IntArray.asList(): List<Int> {\n    return this.unsafeCast<Array<Int>>().asList()\n\n * Returns a [List] that wraps the original array.\n * @kotlin.internal.InlineOnly\n * public actual inline fun LongArray.asList(): List<Long> {\n    return
```



```

T>?.contentDeepToString(): String {\n  definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays
are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n *
\n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers
it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
*/\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual infix fun <T>
Array<out T>.contentEquals(other: Array<out T>): Boolean {\n  return this.contentEquals(other)\n}\n\n/**\n *
Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number
of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals]
function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
*/\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual infix fun
ByteArray.contentEquals(other: ByteArray): Boolean {\n  return this.contentEquals(other)\n}\n\n/**\n * Returns
`true` if the two specified arrays are *structurally* equal to one another,\n *
i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for
equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself
and `-0.0` is not equal to `0.0`.\n */\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual infix fun
ShortArray.contentEquals(other: ShortArray): Boolean {\n  return this.contentEquals(other)\n}\n\n/**\n * Returns
`true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the
same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals]
function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
*/\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince
= "1.4")\npublic actual infix fun IntArray.contentEquals(other: IntArray): Boolean {\n  return
this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one
another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are
compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is
equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual infix fun
LongArray.contentEquals(other: LongArray): Boolean {\n  return this.contentEquals(other)\n}\n\n/**\n * Returns
`true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the
same elements in the same order.\n * \n * The elements are compared for equality with
the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0`
is not equal to `0.0`.\n */\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual infix fun
FloatArray.contentEquals(other: FloatArray): Boolean {\n  return this.contentEquals(other)\n}\n\n/**\n * Returns
`true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the
same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals]
function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
*/\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual infix fun
DoubleArray.contentEquals(other: DoubleArray): Boolean {\n
return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to
one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are
compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is
equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual infix fun

```

```

BooleanArray.contentEquals(other: BooleanArray): Boolean {
    return this.contentEquals(other)
}

Returns `true` if the two specified arrays are structurally equal to one another,
i.e. contain the same number of the same elements in the same order.
The elements are compared for equality with the [equals][Any.equals] function.
For floating point numbers it means that `NaN` is equal to itself and
`-0.0` is not equal to `0.0`.

@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation
warning.")
@SinceKotlin("1.1")
@DeprecatedSinceKotlin(hiddenSince = "1.4")
public actual infix fun
CharArray.contentEquals(other: CharArray): Boolean {
    return this.contentEquals(other)
}

Returns `true` if the two specified arrays are structurally equal to one another,
i.e. contain the same number of the same elements in the same order.
The elements are compared for equality with the [equals][Any.equals] function.
For floating point numbers it means that `NaN` is equal to itself and
`-0.0` is not equal to `0.0`.

@SinceKotlin("1.4")
@library("arrayEquals")
public actual infix fun <T> Array<out
T>?.contentEquals(other: Array<out T>?): Boolean {
    definedExternally
}

Returns `true` if the two specified arrays are structurally equal to one another,
i.e. contain the same number of the same elements in the same order.

The elements are compared for equality with the [equals][Any.equals] function.
For floating point numbers it means that `NaN` is equal to itself and
`-0.0` is not equal to `0.0`.

@SinceKotlin("1.4")
@library("arrayEquals")
public actual infix fun ByteArray?.contentEquals(other:
ByteArray?): Boolean {
    definedExternally
}

Returns `true` if the two specified arrays are structurally equal to one another,
i.e. contain the same number of the same elements in the same order.

The elements are compared for equality with the [equals][Any.equals] function.
For floating point numbers it means that `NaN` is equal to itself and
`-0.0` is not equal to `0.0`.

@SinceKotlin("1.4")
@library("arrayEquals")
public actual infix fun ShortArray?.contentEquals(other:
ShortArray?): Boolean {
    definedExternally
}

Returns `true` if the two specified arrays are structurally equal to one another,
i.e. contain the same number of the same elements in the same order.

The elements are compared for equality with the [equals][Any.equals] function.
For floating point numbers it means that `NaN` is equal to itself and
`-0.0` is not equal to `0.0`.

@SinceKotlin("1.4")
@library("arrayEquals")
public actual infix fun IntArray?.contentEquals(other:
IntArray?): Boolean {
    definedExternally
}

Returns `true` if the two specified arrays are structurally equal to one another,
i.e. contain the same number of the same elements in the same order.

The elements are compared for equality with the [equals][Any.equals] function.
For floating point numbers it means that `NaN` is equal to itself and
`-0.0` is not equal to `0.0`.

@SinceKotlin("1.4")
@library("arrayEquals")
public actual infix fun LongArray?.contentEquals(other:
LongArray?): Boolean {
    definedExternally
}

Returns `true` if the two specified arrays are structurally equal to one another,
i.e. contain the same number of the same elements in the same order.

The elements are compared for equality with the [equals][Any.equals] function.
For floating point numbers it means that `NaN` is equal to itself and
`-0.0` is not equal to `0.0`.

@SinceKotlin("1.4")
@library("arrayEquals")
public actual infix fun FloatArray?.contentEquals(other:
FloatArray?): Boolean {
    definedExternally
}

Returns `true` if the two specified arrays are structurally equal to one another,
i.e. contain the same number of the same elements in the same order.

The elements are compared for equality with the [equals][Any.equals] function.
For floating point numbers it means that `NaN` is equal to itself and
`-0.0` is not equal to `0.0`.

@SinceKotlin("1.4")
@library("arrayEquals")
public actual infix fun DoubleArray?.contentEquals(other:
DoubleArray?): Boolean {
    definedExternally
}

Returns `true` if the two specified arrays are structurally equal to one another,
i.e. contain the same number of the same elements in the same order.

The elements are compared for equality with the [equals][Any.equals] function.
For floating point numbers it means that `NaN` is equal to itself and
`-0.0` is not equal to `0.0`.

@SinceKotlin("1.4")
@library("arrayEquals")
public actual infix fun BooleanArray?.contentEquals(other:
BooleanArray?): Boolean {
    definedExternally
}

Returns `true` if the two specified arrays are

```

\*structurally\* equal to one another,\n \* i.e. contain the same number of the same elements in the same order.\n \* \n \* The elements are compared for equality with the [equals][Any.equals] function.\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n

\*\n@SinceKotlin("1.4")\n@library("arrayEquals")\npublic actual infix fun CharArray?.contentEquals(other: CharArray?): Boolean {\n definedExternally\n}\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual fun <T> Array<out T>.contentHashCode(): Int {\n return this.contentHashCode()\n}\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual fun ByteArray.contentHashCode(): Int {\n return this.contentHashCode()\n}\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual fun ByteArray.contentHashCode(): Int {\n return this.contentHashCode()\n}\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual fun ShortArray.contentHashCode(): Int {\n return this.contentHashCode()\n}\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual fun IntArray.contentHashCode(): Int {\n return this.contentHashCode()\n}\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual fun LongArray.contentHashCode(): Int {\n return this.contentHashCode()\n}\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual fun FloatArray.contentHashCode(): Int {\n return this.contentHashCode()\n}\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual fun DoubleArray.contentHashCode(): Int {\n return this.contentHashCode()\n}\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual fun BooleanArray.contentHashCode(): Int {\n return this.contentHashCode()\n}\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual fun CharArray.contentHashCode(): Int {\n return this.contentHashCode()\n}\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*\n@SinceKotlin("1.4")\n@library("arrayHashCode")\npublic actual fun <T> Array<out T>?.contentHashCode(): Int {\n definedExternally\n}\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*\n@SinceKotlin("1.4")\n@library("arrayHashCode")\npublic actual fun ByteArray?.contentHashCode(): Int {\n definedExternally\n}\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*\n@SinceKotlin("1.4")\n@library("arrayHashCode")\npublic actual fun ShortArray?.contentHashCode(): Int {\n definedExternally\n}\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*\n@SinceKotlin("1.4")\n@library("arrayHashCode")\npublic actual fun IntArray?.contentHashCode(): Int {\n definedExternally\n}\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*\n@SinceKotlin("1.4")\n@library("arrayHashCode")\npublic actual fun LongArray?.contentHashCode(): Int {\n definedExternally\n}\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*\n@SinceKotlin("1.4")\n@library("arrayHashCode")\npublic actual fun FloatArray?.contentHashCode(): Int {\n definedExternally\n}\n\n/\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*\n@SinceKotlin("1.4")\n@library("arrayHashCode")\npublic actual fun



```

DoubleArray?.contentHashCode(): Int {\n  definedExternally\n}\n\n/**\n * Returns a hash code based on the
contents of this array as if it is [List].\n *^n@SinceKotlin("1.4")\n@library("arrayHashCode")\npublic actual fun
BooleanArray?.contentHashCode(): Int {\n  definedExternally\n}\n\n/**\n * Returns a hash code based on the
contents of this array as if it is [List].\n *^n@SinceKotlin("1.4")\n@library("arrayHashCode")\npublic actual fun
CharArray?.contentHashCode(): Int {\n  definedExternally\n}\n\n/**\n
* Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n *^n@Deprecated("Use Kotlin compiler 1.4
to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic
actual fun <T> Array<out T>.contentToString(): String {\n  return this.contentToString()\n}\n\n/**\n * Returns a
string representation of the contents of the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n *^n@Deprecated("Use Kotlin compiler 1.4
to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic
actual fun ByteArray.contentToString(): String {\n  return this.contentToString()\n}\n\n/**\n * Returns a string
representation of the contents of the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n
*^n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation
warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic actual fun
ShortArray.contentToString(): String {\n  return this.contentToString()\n}\n\n/**\n * Returns a string
representation of the contents of the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n *^n@Deprecated("Use Kotlin compiler 1.4
to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic
actual fun IntArray.contentToString(): String {\n  return this.contentToString()\n}\n\n/**\n * Returns a string
representation of the contents of the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n *^n@Deprecated("Use Kotlin compiler 1.4
to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince
= "1.4")\npublic actual fun LongArray.contentToString(): String {\n  return this.contentToString()\n}\n\n/**\n
* Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n *^n@Deprecated("Use Kotlin compiler 1.4
to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic
actual fun FloatArray.contentToString(): String {\n  return this.contentToString()\n}\n\n/**\n * Returns a string
representation of the contents of the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n *^n@Deprecated("Use Kotlin compiler 1.4
to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic
actual fun DoubleArray.contentToString(): String {\n  return this.contentToString()\n}\n\n/**\n * Returns a string
representation of
the contents of the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n *^n@Deprecated("Use Kotlin compiler 1.4
to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic
actual fun BooleanArray.contentToString(): String {\n  return this.contentToString()\n}\n\n/**\n * Returns a string
representation of the contents of the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n *^n@Deprecated("Use Kotlin compiler 1.4
to avoid deprecation warning.")\n@SinceKotlin("1.1")\n@DeprecatedSinceKotlin(hiddenSince = "1.4")\npublic
actual fun CharArray.contentToString(): String {\n  return this.contentToString()\n}\n\n/**\n * Returns a string
representation of the contents of the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n
*^n@SinceKotlin("1.4")\n@library("arrayToString")\npublic
actual fun <T> Array<out T>?.contentToString(): String {\n  definedExternally\n}\n\n/**\n * Returns a string
representation of the contents of the specified array as if it is [List].\n * \n * @sample

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samples.collections.Arrays.ContentOperations.contentToString\n
*\n@SinceKotlin("1.4")\n@library("arrayToString")\npublic actual fun ByteArray?.contentToString(): String
{\n  definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is
[List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*\n@SinceKotlin("1.4")\n@library("arrayToString")\npublic actual fun ShortArray?.contentToString(): String
{\n  definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is
[List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*\n@SinceKotlin("1.4")\n@library("arrayToString")\npublic
  actual fun IntArray?.contentToString(): String {\n  definedExternally\n}\n\n/**\n * Returns a string representation
of the contents of the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n
*\n@SinceKotlin("1.4")\n@library("arrayToString")\npublic actual fun LongArray?.contentToString(): String
{\n  definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is
[List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*\n@SinceKotlin("1.4")\n@library("arrayToString")\npublic actual fun FloatArray?.contentToString(): String
{\n  definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is
[List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*\n@SinceKotlin("1.4")\n@library("arrayToString")\npublic actual fun DoubleArray?.contentToString():
  String {\n  definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as
if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*\n@SinceKotlin("1.4")\n@library("arrayToString")\npublic actual fun BooleanArray?.contentToString():
  String {\n  definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as
if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*\n@SinceKotlin("1.4")\n@library("arrayToString")\npublic actual fun CharArray?.contentToString(): String
{\n  definedExternally\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that
array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it
overlaps with the destination range.\n * \n * @param destination the array to copy to.\n *
  @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the
beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the
subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or
[IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex
> endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array
starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices
range.\n * \n * @return the [destination] array.\n
*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT
  _ARGUMENTS")\npublic actual inline fun <T> Array<out T>.copyInto(destination: Array<T>, destinationOffset:
  Int = 0, startIndex: Int = 0, endIndex: Int = size): Array<T> {\n  arrayCopy(this,
  destination, destinationOffset, startIndex, endIndex)\n  return destination\n}\n\n/**\n * Copies this array or its
subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the
[destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param
  destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0
by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param
  endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws
  IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this
array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange
doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is
out of the [destination] array indices range.\n * \n * @return the [destination] array.\n
*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT

```

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_ARGUMENTS`)
public actual inline fun ByteArray.copyInto(destination: ByteArray, destinationOffset: Int = 0,
startIndex: Int = 0, endIndex: Int = size): ByteArray {
    arrayCopy(this.unsafeCast<Array<Byte>>(),
destination.unsafeCast<Array<Byte>>(), destinationOffset, startIndex, endIndex)
    return destination
}

/**
 * Copies this array or its subrange into the [destination] array and returns that array.
 * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.
 * @param destination the array to copy to.
 * @param destinationOffset the position in the [destination] array to copy to, 0 by default.
 * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.
 * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.
 * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.
 * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],
 * or when that index is out of the [destination] array indices range.
 * @return the [destination] array.
 */
@SinceKotlin("1.3")
@kotlin.internal.InlineOnly
@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")
public actual inline fun ShortArray.copyInto(destination: ShortArray, destinationOffset: Int = 0,
startIndex: Int = 0, endIndex: Int = size): ShortArray {
    arrayCopy(this.unsafeCast<Array<Short>>(),
destination.unsafeCast<Array<Short>>(), destinationOffset, startIndex, endIndex)
    return destination
}

/**
 * Copies this array or its subrange into the [destination] array and returns that array.
 * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.
 * @param destination the array to copy to.
 * @param destinationOffset the position in the [destination] array to copy to, 0 by default.
 * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.
 * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.
 * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.
 * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],
 * or when that index is out of the [destination] array indices range.
 * @return the [destination] array.
 */
@SinceKotlin("1.3")
@kotlin.internal.InlineOnly
@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")
public actual inline fun IntArray.copyInto(destination: IntArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): IntArray {
    arrayCopy(this.unsafeCast<Array<Int>>(), destination.unsafeCast<Array<Int>>(),
destinationOffset, startIndex, endIndex)
    return destination
}

/**
 * Copies this array or its subrange into the [destination] array and returns that array.
 * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.
 * @param destination the array to copy to.
 * @param destinationOffset the position in the [destination] array to copy to, 0 by default.
 * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.
 * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.
 * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.
 * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],
 * or when that index is out of the [destination] array indices range.
 * @return the [destination] array.
 */
@SinceKotlin("1.3")
@kotlin.internal.InlineOnly
@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")
public actual inline fun LongArray.copyInto(destination: LongArray, destinationOffset: Int = 0,
startIndex: Int = 0, endIndex: Int = size): LongArray {
    arrayCopy(this.unsafeCast<Array<Long>>(),
destination.unsafeCast<Array<Long>>(), destinationOffset, startIndex, endIndex)
    return destination
}

/**
 * Copies this array or its subrange into the [destination] array and returns that array.
 * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination

```

range.\n \* \n \* @param destination the array to copy to.\n \* @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n \* @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n \* @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n \* \n \* @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n \* @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n \* or when that index is out of the [destination] array indices range.\n \* \n \* @return the [destination] array.\n

```
*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic actual inline fun FloatArray.copyInto(destination: FloatArray, destinationOffset: Int = 0, startIndex:
```

```
Int = 0, endIndex: Int = size): FloatArray {\n    arrayCopy(this.unsafeCast<Array<Float>>(),\n        destination.unsafeCast<Array<Float>>(), destinationOffset, startIndex, endIndex)\n    return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n
```

```
*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic actual inline fun DoubleArray.copyInto(destination: DoubleArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): DoubleArray {\n    arrayCopy(this.unsafeCast<Array<Double>>(),\n        destination.unsafeCast<Array<Double>>(), destinationOffset, startIndex, endIndex)\n    return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy
```

```
to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n
```

```
*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic actual inline fun BooleanArray.copyInto(destination: BooleanArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): BooleanArray {\n
```

```
    arrayCopy(this.unsafeCast<Array<Boolean>>(), destination.unsafeCast<Array<Boolean>>(),\n        destinationOffset, startIndex, endIndex)\n    return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination]
```

```

array indices range.\n * \n * @return the [destination] array.\n
*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT
_ARGUMENTS")\npublic actual inline fun CharArray.copyInto(destination: CharArray, destinationOffset: Int = 0,
startIndex: Int = 0, endIndex: Int = size): CharArray {\n    arrayCopy(this.unsafeCast<Array<Char>>(),
destination.unsafeCast<Array<Char>>(), destinationOffset, startIndex, endIndex)\n    return destination\n}\n\n/**\n
* Returns new array which is a copy of the original array.\n * \n * @sample
samples.collections.Arrays.CopyOfOperations.copyOfOf\n *\n@Suppress("ACTUAL_WITHOUT_EXPECT",
"NOTHING_TO_INLINE")\npublic actual inline fun <T> Array<out T>.copyOf(): Array<T> {\n    return
this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample
samples.collections.Arrays.CopyOfOperations.copyOfOf\n *\n@Suppress("NOTHING_TO_INLINE")\npublic
actual inline fun
ByteArray.copyOfOf(): ByteArray {\n    return this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a
copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOfOf\n
*\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline fun ShortArray.copyOfOf(): ShortArray {\n
return this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n *
@sample samples.collections.Arrays.CopyOfOperations.copyOfOf\n
*\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline fun IntArray.copyOfOf(): IntArray {\n    return
this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample
samples.collections.Arrays.CopyOfOperations.copyOfOf\n *\npublic actual fun LongArray.copyOfOf(): LongArray {\n
return withType("LongArray", this.asDynamic().slice())\n}\n\n/**\n * Returns new array which is a copy of the
original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOfOf\n
*\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline fun FloatArray.copyOfOf(): FloatArray {\n
return this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n *
@sample samples.collections.Arrays.CopyOfOperations.copyOfOf\n
*\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline fun DoubleArray.copyOfOf(): DoubleArray {\n
return this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n *
@sample samples.collections.Arrays.CopyOfOperations.copyOfOf\n *\npublic actual fun BooleanArray.copyOfOf():
BooleanArray {\n    return withType("BooleanArray", this.asDynamic().slice())\n}\n\n/**\n * Returns new array
which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOfOf\n
*\npublic actual fun CharArray.copyOfOf(): CharArray {\n    return withType("CharArray",
this.asDynamic().slice())\n}\n\n/**\n * Returns new array which is a copy of
the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero
values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the
[newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are
filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n
*\npublic actual fun ByteArray.copyOfOf(newSize: Int): ByteArray {\n    require(newSize >= 0) { "Invalid new array
size: $newSize." }\n    return fillFrom(this, ByteArray(newSize))\n}\n\n/**\n * Returns new array which is a copy
of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero
values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the
[newSize].\n * - If [newSize] is greater than the size
of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample
samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n *\npublic actual fun
ShortArray.copyOfOf(newSize: Int): ShortArray {\n    require(newSize >= 0) { "Invalid new array size: $newSize."
}\n    return fillFrom(this, ShortArray(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original
array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if
necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the
[newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are
filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n

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*\npublic actual fun IntArray.copyOf(newSize: Int): IntArray {\n  require(newSize >= 0) { \"Invalid new array
size:
$newSize.\" }\n  return fillFrom(this, IntArray(newSize))\n}\n\n/**\n * Returns new array which is a copy of the
original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values
if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the
[newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are
filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n
*\npublic actual fun LongArray.copyOf(newSize: Int): LongArray {\n  require(newSize >= 0) { \"Invalid new
array size: $newSize.\" }\n  return withType(\"LongArray\", arrayCopyResize(this, newSize, 0L))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either
truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize]
is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater
than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample
samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n
*\npublic actual fun
FloatArray.copyOf(newSize: Int): FloatArray {\n  require(newSize >= 0) { \"Invalid new array size: $newSize.\"
}\n  return fillFrom(this, FloatArray(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original
array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if
necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the
[newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are
filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n
*\npublic actual fun DoubleArray.copyOf(newSize: Int): DoubleArray {\n  require(newSize >= 0) { \"Invalid new
array size: $newSize.\" }\n  return fillFrom(this, DoubleArray(newSize))\n}\n\n/**\n * Returns new array which is
a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end
with `false` values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is
truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the
copy array are filled with `false` values.\n * \n * @sample
samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n
*\npublic actual fun
BooleanArray.copyOf(newSize: Int): BooleanArray {\n  require(newSize >= 0) { \"Invalid new array size:
$newSize.\" }\n  return withType(\"BooleanArray\", arrayCopyResize(this, newSize, false))\n}\n\n/**\n * Returns
new array which is a copy
of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with null
char (`\u0000`) values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is
truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the
copy array are filled with null char (`\u0000`) values.\n * \n * @sample
samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n
*\npublic actual fun
CharArray.copyOf(newSize: Int): CharArray {\n  require(newSize >= 0) { \"Invalid new array size: $newSize.\"
}\n  return withType(\"CharArray\", fillFrom(this, CharArray(newSize)))\n}\n\n/**\n * Returns new array which is
a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end
with `null` values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is
truncated
to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array
are filled with `null` values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizingCopyOf\n
*\n@Suppress(\"ACTUAL_WITHOUT_EXPECT\")\npublic actual fun <T> Array<out T>.copyOf(newSize: Int):
Array<T?> {\n  require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n  return arrayCopyResize(this,
newSize, null)\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n
* @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive)
to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than
the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n

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*\n@Suppress("ACTUAL_WITHOUT_EXPECT")\npublic actual fun <T> Array<out
T>.copyOfRange(fromIndex:
Int, toIndex: Int): Array<T> {\n  AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n  return
this.asDynamic().slice(fromIndex, toIndex)\n}\n\n/**\n * Returns a new array which is a copy of the specified range
of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the
end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero
or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater
than [toIndex].\n */\n\npublic actual fun ByteArray.copyOfRange(fromIndex: Int, toIndex: Int): ByteArray {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n  return this.asDynamic().slice(fromIndex,
toIndex)\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n *
@param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive)
to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than
the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n\npublic
actual fun ShortArray.copyOfRange(fromIndex: Int, toIndex: Int): ShortArray {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n  return this.asDynamic().slice(fromIndex,
toIndex)\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n *
@param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive)
to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than
the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n\npublic
actual fun IntArray.copyOfRange(fromIndex: Int, toIndex: Int): IntArray {\n
AbstractList.checkRangeIndexes(fromIndex,
toIndex, size)\n  return this.asDynamic().slice(fromIndex, toIndex)\n}\n\n/**\n * Returns a new array which is a
copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to
copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException
if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws
IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n\npublic actual fun
LongArray.copyOfRange(fromIndex: Int, toIndex: Int): LongArray {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n  return withType("LongArray",
this.asDynamic().slice(fromIndex, toIndex))\n}\n\n/**\n * Returns a new array which is a copy of the specified
range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param
toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException
if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws
IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n\npublic actual fun
FloatArray.copyOfRange(fromIndex: Int, toIndex: Int): FloatArray {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n  return this.asDynamic().slice(fromIndex,
toIndex)\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n *
@param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive)
to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than
the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n\npublic
actual fun DoubleArray.copyOfRange(fromIndex: Int, toIndex: Int): DoubleArray {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n  return this.asDynamic().slice(fromIndex,
toIndex)\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n *
@param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive)
to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than
the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n\npublic
actual fun BooleanArray.copyOfRange(fromIndex: Int, toIndex: Int): BooleanArray {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n  return withType("BooleanArray",
this.asDynamic().slice(fromIndex, toIndex))\n}\n\n/**\n * Returns a new array which is a copy of the specified

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*\n@SinceKotlin("1.3")\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
actual fun FloatArray.fill(element: Float, fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n  nativeFill(element, fromIndex, toIndex);\n}\n\n/**\n
* Fills this array or its subrange with the specified [element] value.\n * \n * @param
fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range
(exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less
than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is
greater than [toIndex].\n
*\n@SinceKotlin("1.3")\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
actual fun DoubleArray.fill(element: Double, fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n  nativeFill(element, fromIndex, toIndex);\n}\n\n/**\n
* Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range
(inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by
default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero
or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater
than [toIndex].\n
*\n@SinceKotlin("1.3")\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
actual fun BooleanArray.fill(element: Boolean, fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n  nativeFill(element, fromIndex, toIndex);\n}\n\n/**\n
* Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range
(inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by
default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than
the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
*\n@SinceKotlin("1.3")\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
actual fun CharArray.fill(element:
Char, fromIndex: Int = 0, toIndex: Int = size): Unit {\n  AbstractList.checkRangeIndexes(fromIndex, toIndex,
size)\n  nativeFill(element, fromIndex, toIndex);\n}\n\n/**\n * Returns an array containing all elements of the
original array and then the given [element].\n *\n@Suppress("ACTUAL_WITHOUT_EXPECT",
"NOTHING_TO_INLINE")\npublic actual inline operator fun <T> Array<out T>.plus(element: T): Array<T> {\n
return this.asDynamic().concat(arrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the
original array and then the given [element].\n *\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline
operator fun ByteArray.plus(element: Byte): ByteArray {\n  return plus(byteArrayOf(element))\n}\n\n/**\n *
Returns an array containing all elements of the original array and then the given [element].\n
*\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun ShortArray.plus(element: Short):
ShortArray {\n  return plus(shortArrayOf(element))\n}\n\n/**\n
* Returns an array containing all elements of the original array and then the given [element].\n
*\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun IntArray.plus(element: Int):
IntArray {\n  return plus(intArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the
original array and then the given [element].\n *\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline
operator fun LongArray.plus(element: Long): LongArray {\n  return plus(longArrayOf(element))\n}\n\n/**\n *
Returns an array containing all elements of the original array and then the given [element].\n
*\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun FloatArray.plus(element: Float):
FloatArray {\n  return plus(floatArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the
original array and then the given [element].\n *\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline
operator fun DoubleArray.plus(element:
Double): DoubleArray {\n  return plus(doubleArrayOf(element))\n}\n\n/**\n * Returns an array containing all
elements of the original array and then the given [element].\n *\n@Suppress("NOTHING_TO_INLINE")\npublic
actual inline operator fun BooleanArray.plus(element: Boolean): BooleanArray {\n  return

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plus(booleanArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then
the given [element].\n */\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun
CharArray.plus(element: Char): CharArray {\n    return plus(charArrayOf(element))\n}\n\n/**\n * Returns an array
containing all elements of the original array and then all elements of the given [elements] collection.\n
*/\n@Suppress("ACTUAL_WITHOUT_EXPECT")\npublic actual operator fun <T> Array<out T>.plus(elements:
Collection<T>): Array<T> {\n    return arrayPlusCollection(this, elements)\n}\n\n/**\n * Returns an array
containing all elements of the original
array and then all elements of the given [elements] collection.\n */\npublic actual operator fun
ByteArray.plus(elements: Collection<Byte>): ByteArray {\n    return fillFromCollection(this.copyOf(size +
elements.size), this.size, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and
then all elements of the given [elements] collection.\n */\npublic actual operator fun ShortArray.plus(elements:
Collection<Short>): ShortArray {\n    return fillFromCollection(this.copyOf(size + elements.size), this.size,
elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the
given [elements] collection.\n */\npublic actual operator fun IntArray.plus(elements: Collection<Int>): IntArray {\n
return fillFromCollection(this.copyOf(size + elements.size), this.size, elements)\n}\n\n/**\n * Returns an array
containing all elements of the original array and then all elements of the given [elements] collection.\n
*/\npublic actual operator fun LongArray.plus(elements: Collection<Long>): LongArray {\n    return
arrayPlusCollection(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and
then all elements of the given [elements] collection.\n */\npublic actual operator fun FloatArray.plus(elements:
Collection<Float>): FloatArray {\n    return fillFromCollection(this.copyOf(size + elements.size), this.size,
elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the
given [elements] collection.\n */\npublic actual operator fun DoubleArray.plus(elements: Collection<Double>):
DoubleArray {\n    return fillFromCollection(this.copyOf(size + elements.size), this.size, elements)\n}\n\n/**\n *
Returns an array containing all elements of the original array and then all elements of the given [elements]
collection.\n */\npublic actual operator fun BooleanArray.plus(elements: Collection<Boolean>): BooleanArray {\n
return arrayPlusCollection(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original
array and then all elements of the given [elements] collection.\n */\npublic actual operator fun
CharArray.plus(elements: Collection<Char>): CharArray {\n    return fillFromCollection(this.copyOf(size +
elements.size), this.size, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and
then all elements of the given [elements] array.\n */\n@Suppress("ACTUAL_WITHOUT_EXPECT",
"NOTHING_TO_INLINE")\npublic actual inline operator fun <T> Array<out T>.plus(elements: Array<out T>):
Array<T> {\n    return this.asDynamic().concat(elements)\n}\n\n/**\n * Returns an array containing all elements of
the original array and then all elements of the given [elements] array.\n
*/\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun ByteArray.plus(elements:
ByteArray): ByteArray {\n    return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array containing
all elements of the original array and then all elements of the given [elements]
array.\n */\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun ShortArray.plus(elements:
ShortArray): ShortArray {\n    return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array
containing all elements of the original array and then all elements of the given [elements] array.\n
*/\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun IntArray.plus(elements: IntArray):
IntArray {\n    return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array containing all elements of
the original array and then all elements of the given [elements] array.\n
*/\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun LongArray.plus(elements:
LongArray): LongArray {\n    return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array
containing all elements of the original array and then all elements
of the given [elements] array.\n */\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun
FloatArray.plus(elements: FloatArray): FloatArray {\n    return primitiveArrayConcat(this, elements)\n}\n\n/**\n *
Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n

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*\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun DoubleArray.plus(elements:
DoubleArray): DoubleArray {\n    return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array
containing all elements of the original array and then all elements of the given [elements] array.\n
*\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun BooleanArray.plus(elements:
BooleanArray): BooleanArray {\n    return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array
containing all elements of the original array and then all elements of the given [elements] array.\n
*\n@Suppress("NOTHING_TO_INLINE")\npublic
actual inline operator fun CharArray.plus(elements: CharArray): CharArray {\n    return primitiveArrayConcat(this,
elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given
[element].\n\n*\n@Suppress("ACTUAL_WITHOUT_EXPECT", "NOTHING_TO_INLINE")\npublic actual
inline fun <T> Array<out T>.plusElement(element: T): Array<T> {\n    return
this.asDynamic().concat(arrayOf(element))\n}\n\n/**\n * Sorts the array in-place.\n\n * \n * @sample
samples.collections.Arrays.Sorting.sortArray\n\n*\n@library("primitiveArraySort")\npublic actual fun
IntArray.sort(): Unit {\n    definedExternally\n}\n\n/**\n * Sorts the array in-place.\n\n * \n * @sample
samples.collections.Arrays.Sorting.sortArray\n\n*\npublic actual fun LongArray.sort(): Unit {\n
@Suppress("DEPRECATION")\n    if (size > 1) sort { a: Long, b: Long -> a.compareTo(b) }\n}\n\n/**\n * Sorts
the array in-place.\n\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n
*\n@library("primitiveArraySort")\npublic
actual fun ByteArray.sort(): Unit {\n    definedExternally\n}\n\n/**\n * Sorts the array in-place.\n\n * \n * @sample
samples.collections.Arrays.Sorting.sortArray\n\n*\n@library("primitiveArraySort")\npublic actual fun
ShortArray.sort(): Unit {\n    definedExternally\n}\n\n/**\n * Sorts the array in-place.\n\n * \n * @sample
samples.collections.Arrays.Sorting.sortArray\n\n*\n@library("primitiveArraySort")\npublic actual fun
DoubleArray.sort(): Unit {\n    definedExternally\n}\n\n/**\n * Sorts the array in-place.\n\n * \n * @sample
samples.collections.Arrays.Sorting.sortArray\n\n*\n@library("primitiveArraySort")\npublic actual fun
FloatArray.sort(): Unit {\n    definedExternally\n}\n\n/**\n * Sorts the array in-place.\n\n * \n * @sample
samples.collections.Arrays.Sorting.sortArray\n\n*\n@library("primitiveArraySort")\npublic actual fun
CharArray.sort(): Unit {\n    definedExternally\n}\n\n/**\n * Sorts the array in-place according to the natural order
of its elements.\n\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other
after sorting.\n\n * \n * @sample samples.collections.Arrays.Sorting.sortArrayOfComparable\n\n*\npublic actual fun
<T : Comparable<T>> Array<out T>.sort(): Unit {\n    if (size > 1) sortArray(this)\n}\n\n/**\n * Sorts the array in-
place according to the order specified by the given [comparison] function.\n\n * \n * The sort is _stable_. It means that
equal elements preserve their order relative to each other after sorting.\n\n * \n * @Deprecated("Use sortWith instead",
ReplaceWith("this.sortWith(Comparator(comparison))"))\n\n*\n@DeprecatedSinceKotlin(warningSince =
"1.6")\npublic fun <T> Array<out T>.sort(comparison: (a: T, b: T) -> Int): Unit {\n    if (size > 1)
sortArrayWith(this, comparison)\n}\n\n/**\n * Sorts a range in the array in-place.\n\n * \n * The sort is _stable_. It
means that equal elements preserve their order relative to each other after sorting.\n\n * \n * @param
fromIndex the start of the range (inclusive) to sort, 0 by default.\n\n * @param toIndex the end of the range
(exclusive) to sort, size of this array by default.\n\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is
less than zero or [toIndex] is greater than the size of this array.\n\n * @throws IllegalArgumentException if
[fromIndex] is greater than [toIndex].\n\n * \n * @sample
samples.collections.Arrays.Sorting.sortRangeOfArrayOfComparable\n
*\n@SinceKotlin("1.4")\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
actual fun <T : Comparable<T>> Array<out T>.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    sortArrayWith(this, fromIndex, toIndex,
naturalOrder())\n}\n\n/**\n * Sorts a range in the array in-place.\n\n * \n * @param fromIndex the start of the range
(inclusive) to sort, 0 by default.\n\n * @param toIndex the end of the range (exclusive) to sort, size of this array by
default.\n\n * \n

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* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this
array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample
samples.collections.Arrays.Sorting.sortRangeOfArray\n
*\n@SinceKotlin("1.4")\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
actual fun ByteArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    val subarray =
this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<ByteArray>()\n    subarray.sort()\n}\n\n/**\n * Sorts a
range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n *
@param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws
IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n *
@throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample
samples.collections.Arrays.Sorting.sortRangeOfArray\n
*\n@SinceKotlin("1.4")\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
actual fun ShortArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    val subarray =
this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<ShortArray>()\n    subarray.sort()\n}\n\n/**\n * Sorts a
range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n *
@param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws
IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n *
@throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample
samples.collections.Arrays.Sorting.sortRangeOfArray\n
*\n@SinceKotlin("1.4")\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
actual fun IntArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    val subarray =
this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<IntArray>()\n    subarray.sort()\n}\n\n/**\n * Sorts a
range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n *
@param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws
IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n *
@throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample
samples.collections.Arrays.Sorting.sortRangeOfArray\n
*\n@SinceKotlin("1.4")\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
actual fun LongArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex,
toIndex, size)\n    sortArrayWith(this.unsafeCast<Array<Long>>(), fromIndex, toIndex,
naturalOrder())\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range
(inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by
default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than
the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n *
@sample samples.collections.Arrays.Sorting.sortRangeOfArray\n
*\n@SinceKotlin("1.4")\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
actual fun FloatArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    val subarray =
this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<FloatArray>()\n    subarray.sort()\n}\n\n/**\n * Sorts a
range in the array
in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the
end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if
[fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws
IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample
samples.collections.Arrays.Sorting.sortRangeOfArray\n

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samples.collections.Arrays.Sorting.sortRangeOfArray\n
*\n@SinceKotlin("1.4")\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
actual fun DoubleArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    val subarray =
this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<DoubleArray>()\n    subarray.sort()\n}\n\n/**\n * Sorts
a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n *
@param toIndex the end of the range (exclusive) to sort,
size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or
[toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than
[toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n
*\n@SinceKotlin("1.4")\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic
actual fun CharArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    val subarray =
this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<CharArray>()\n    subarray.sort()\n}\n\n/**\n * Sorts the
array in-place according to the order specified by the given [comparison] function.\n * \n@Deprecated("Use other
sorting functions from the Standard Library")\n@DeprecatedSinceKotlin(warningSince =
"1.6")\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.sort(noinline comparison: (a: Byte, b: Byte) ->
Int): Unit
{\n    nativeSort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given
[comparison] function.\n * \n@Deprecated("Use other sorting functions from the Standard
Library")\n@DeprecatedSinceKotlin(warningSince = "1.6")\n@kotlin.internal.InlineOnly\npublic inline fun
ShortArray.sort(noinline comparison: (a: Short, b: Short) -> Int): Unit {\n    nativeSort(comparison)\n}\n\n/**\n *
Sorts the array in-place according to the order specified by the given [comparison] function.\n
*\n@Deprecated("Use other sorting functions from the Standard
Library")\n@DeprecatedSinceKotlin(warningSince = "1.6")\n@kotlin.internal.InlineOnly\npublic inline fun
IntArray.sort(noinline comparison: (a: Int, b: Int) -> Int): Unit {\n    nativeSort(comparison)\n}\n\n/**\n * Sorts the
array in-place according to the order specified by the given [comparison] function.\n * \n@Deprecated("Use other
sorting functions from the Standard Library")\n@DeprecatedSinceKotlin(warningSince
= "1.6")\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.sort(noinline comparison: (a: Long, b: Long) -
> Int): Unit {\n    nativeSort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by
the given [comparison] function.\n * \n@Deprecated("Use other sorting functions from the Standard
Library")\n@DeprecatedSinceKotlin(warningSince = "1.6")\n@kotlin.internal.InlineOnly\npublic inline fun
FloatArray.sort(noinline comparison: (a: Float, b: Float) -> Int): Unit {\n    nativeSort(comparison)\n}\n\n/**\n *
Sorts the array in-place according to the order specified by the given [comparison] function.\n
*\n@Deprecated("Use other sorting functions from the Standard
Library")\n@DeprecatedSinceKotlin(warningSince = "1.6")\n@kotlin.internal.InlineOnly\npublic inline fun
DoubleArray.sort(noinline comparison: (a: Double, b: Double) -> Int): Unit {\n
nativeSort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order
specified by the given [comparison] function.\n * \n@Deprecated("Use other sorting functions from the Standard
Library")\n@DeprecatedSinceKotlin(warningSince = "1.6")\n@kotlin.internal.InlineOnly\npublic inline fun
CharArray.sort(noinline comparison: (a: Char, b: Char) -> Int): Unit {\n    nativeSort(comparison)\n}\n\n/**\n *
Sorts the array in-place according to the order specified by the given [comparator].\n * \n * The sort is _stable_. It
means that equal elements preserve their order relative to each other after sorting.\n * \n@public actual fun <T>
Array<out T>.sortWith(comparator: Comparator<in T>): Unit {\n    if (size > 1) sortArrayWith(this,
comparator)\n}\n\n/**\n * Sorts a range in the array in-place with the given [comparator].\n * \n * The sort is
_stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * @param
fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range
(exclusive)

```

to sort, size of this array by default.\n \* \n \* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n

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*\n@SinceKotlin("1.4")\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\n\npublic
actual fun <T> Array<out T>.sortWith(comparator: Comparator<in T>, fromIndex: Int = 0, toIndex: Int = size):
Unit {\n  AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n  sortArrayWith(this, fromIndex, toIndex,
comparator)\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n
*\n\npublic actual fun ByteArray.toTypedArray(): Array<Byte> {\n  return js("[]").slice.call(this)\n}\n\n/**\n *
Returns a *typed* object array containing all of the elements of this primitive array.\n\n\npublic actual fun
ShortArray.toTypedArray(): Array<Short> {\n  return js("[]").slice.call(this)\n}\n\n/**\n *
Returns a *typed* object array containing all of the elements of this primitive array.\n\n\npublic actual fun
IntArray.toTypedArray(): Array<Int> {\n  return js("[]").slice.call(this)\n}\n\n\n/**\n * Returns a *typed* object
array containing all of the elements of this primitive array.\n\n\npublic actual fun LongArray.toTypedArray():
Array<Long> {\n  return js("[]").slice.call(this)\n}\n\n\n/**\n * Returns a *typed* object array containing all of the
elements of this primitive array.\n\n\npublic actual fun FloatArray.toTypedArray(): Array<Float> {\n  return
js("[]").slice.call(this)\n}\n\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive
array.\n\n\npublic actual fun DoubleArray.toTypedArray(): Array<Double> {\n  return
js("[]").slice.call(this)\n}\n\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive
array.\n\n\npublic actual fun BooleanArray.toTypedArray(): Array<Boolean> {\n  return
js("[]").slice.call(this)\n}\n\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive
array.\n\n\npublic actual fun CharArray.toTypedArray(): Array<Char> {\n  return Array(size) { index ->
this[index] }\n}\n\n", /*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n
*\n\n@file:kotlin.jvm.JvmName("ComparisonsKt")\n\n@file:kotlin.jvm.JvmMultifileClass\n\npackage
kotlin.comparisons\n\n/**\n * Compares two values using the specified functions [selectors] to calculate the result
of the comparison.\n * The functions are called sequentially, receive the given values [a] and [b] and return
[Comparable]\n * objects. As soon as the [Comparable] instances returned by a function for [a] and [b] values do
not\n * compare as equal, the result of that comparison is returned.\n *\n * @sample
samples.comparisons.Comparisons.compareValuesByWithSelectors\n
*\n\npublic fun <T> compareValuesBy(a: T, b: T, vararg selectors: (T) -> Comparable<*>?): Int {\n
require(selectors.size > 0)\n  return compareValuesByImpl(a, b, selectors)\n}\n\n\nprivate fun <T>
compareValuesByImpl(a: T, b: T, selectors: Array<out (T) -> Comparable<*>?): Int {\n  for (fn in selectors) {\n
    val v1 = fn(a)\n    val v2 = fn(b)\n    val diff = compareValues(v1, v2)\n    if (diff != 0) return diff\n  }\n
return 0\n}\n\n\n/**\n * Compares two values using the specified [selector] function to calculate the result of the
comparison.\n * The function is applied to the given values [a] and [b] and return [Comparable] objects.\n * The
result of comparison of these [Comparable] instances is returned.\n *\n * @sample
samples.comparisons.Comparisons.compareValuesByWithSingleSelector\n *\n\n@kotlin.internal.InlineOnly\n\npublic
inline fun <T> compareValuesBy(a: T, b: T, selector: (T) -> Comparable<*>?): Int {\n
return compareValues(selector(a), selector(b))\n}\n\n\n/**\n * Compares two values using the specified [selector]
function to calculate the result of the comparison.\n * The function is applied to the given values [a] and [b] and
return objects of type K which are then being\n * compared with the given [comparator].\n *\n * @sample
samples.comparisons.Comparisons.compareValuesByWithComparator\n *\n\n@kotlin.internal.InlineOnly\n\npublic
inline fun <T, K> compareValuesBy(a: T, b: T, comparator: Comparator<in K>, selector: (T) -> K): Int {\n  return
comparator.compare(selector(a), selector(b))\n}\n\n\n/// Not so useful without type inference for receiver of
expression\n\n/// compareValuesWith(v1, v2, compareBy { it.prop1 } thenByDescending { it.prop2 })\n\n/// **\n\n *
Compares two values using the specified [comparator].\n\n *\n\n@Suppress("NOTHING_TO_INLINE")\n\npublic
inline fun <T> compareValuesWith(a: T, b: T, comparator: Comparator<T>): Int = comparator.compare(a,

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b)\n/\n\n/**\n * Compares
two nullable [Comparable] values. Null is considered less than any value.\n *\n * @sample
samples.comparisons.Comparisons.compareValues\n *\npublic fun <T : Comparable<*>> compareValues(a: T?, b:
T?): Int {\n if (a === b) return 0\n if (a == null) return -1\n if (b == null) return 1\n\n
@Suppress("UNCHECKED_CAST")\n return (a as Comparable<Any>).compareTo(b)\n}\n\n/**\n * Creates a
comparator using the sequence of functions to calculate a result of comparison.\n *\n * The functions are called
sequentially, receive the given values `a` and `b` and return [Comparable]\n * objects. As soon as the [Comparable]
instances returned by a function for `a` and `b` values do not\n * compare as equal, the result of that comparison is
returned from the [Comparator].\n *\n * @sample samples.comparisons.Comparisons.compareByWithSelectors\n
*\npublic fun <T> compareBy(vararg selectors: (T) -> Comparable<*>?): Comparator<T> {\n
require(selectors.size > 0)\n return Comparator
{ a, b -> compareValuesByImpl(a, b, selectors) }\n}\n\n/**\n * Creates a comparator using the function to
transform value to a [Comparable] instance for comparison.\n *\n * @sample
samples.comparisons.Comparisons.compareByWithSingleSelector\n *\n@kotlin.internal.InlineOnly\npublic inline
fun <T> compareBy(crossinline selector: (T) -> Comparable<*>?): Comparator<T> =\n Comparator { a, b ->
compareValuesBy(a, b, selector) }\n\n/**\n * Creates a comparator using the [selector] function to transform values
being compared and then applying\n * the specified [comparator] to compare transformed values.\n *\n * @sample
samples.comparisons.Comparisons.compareByWithComparator\n *\n@kotlin.internal.InlineOnly\npublic inline
fun <T, K> compareBy(comparator: Comparator<in K>, crossinline selector: (T) -> K): Comparator<T> =\n
Comparator { a, b -> compareValuesBy(a, b, comparator, selector) }\n\n/**\n * Creates a descending comparator
using the function to transform value to a [Comparable]
instance for comparison.\n *\n * @sample
samples.comparisons.Comparisons.compareByDescendingWithSingleSelector\n
*\n@kotlin.internal.InlineOnly\npublic inline fun <T> compareByDescending(crossinline selector: (T) ->
Comparable<*>?): Comparator<T> =\n Comparator { a, b -> compareValuesBy(b, a, selector) }\n\n/**\n *
Creates a descending comparator using the [selector] function to transform values being compared and then
applying\n * the specified [comparator] to compare transformed values.\n *\n * Note that an order of [comparator] is
reversed by this wrapper.\n *\n * @sample
samples.comparisons.Comparisons.compareByDescendingWithComparator\n
*\n@kotlin.internal.InlineOnly\npublic inline fun <T, K> compareByDescending(comparator: Comparator<in K>,
crossinline selector: (T) -> K): Comparator<T> =\n Comparator { a, b -> compareValuesBy(b, a, comparator,
selector) }\n\n/**\n * Creates a comparator comparing values after the primary comparator defined them equal. It
uses\n * the function
to transform value to a [Comparable] instance for comparison.\n *\n * @sample
samples.comparisons.Comparisons.thenBy\n *\n@kotlin.internal.InlineOnly\npublic inline fun <T>
Comparator<T>.thenBy(crossinline selector: (T) -> Comparable<*>?): Comparator<T> =\n Comparator { a, b -
->\n val previousCompare = this@thenBy.compare(a, b)\n if (previousCompare != 0) previousCompare else
compareValuesBy(a, b, selector)\n }\n\n/**\n * Creates a comparator comparing values after the primary
comparator defined them equal. It uses\n * the [selector] function to transform values and then compares them with
the given [comparator].\n *\n * @sample samples.comparisons.Comparisons.thenByWithComparator\n
*\n@kotlin.internal.InlineOnly\npublic inline fun <T, K> Comparator<T>.thenBy(comparator: Comparator<in K>,
crossinline selector: (T) -> K): Comparator<T> =\n Comparator { a, b ->\n val previousCompare =
this@thenBy.compare(a, b)\n if (previousCompare != 0) previousCompare
else compareValuesBy(a, b, comparator, selector)\n }\n\n/**\n * Creates a descending comparator using the
primary comparator and\n * the function to transform value to a [Comparable] instance for comparison.\n *\n *
@sample samples.comparisons.Comparisons.thenByDescending\n *\n@kotlin.internal.InlineOnly\npublic inline
fun <T> Comparator<T>.thenByDescending(crossinline selector: (T) -> Comparable<*>?): Comparator<T> =\n
Comparator { a, b ->\n val previousCompare = this@thenByDescending.compare(a, b)\n if

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(previousCompare != 0) previousCompare else compareValuesBy(b, a, selector)\n    }\n\n/**\n * Creates a
descending comparator comparing values after the primary comparator defined them equal. It uses\n * the [selector]
function to transform values and then compares them with the given [comparator].\n *\n * @sample
samples.comparisons.Comparisons.thenByDescendingWithComparator\n *\n@kotlin.internal.InlineOnly\npublic
inline fun <T, K> Comparator<T>.thenByDescending(comparator:
Comparator<in K>, crossinline selector: (T) -> K): Comparator<T> =\n    Comparator { a, b ->\n        val
previousCompare = this@thenByDescending.compare(a, b)\n        if (previousCompare != 0) previousCompare else
compareValuesBy(b, a, comparator, selector)\n    }\n\n\n/**\n * Creates a comparator using the primary comparator
and function to calculate a result of comparison.\n *\n * @sample
samples.comparisons.Comparisons.thenComparator\n *\n@kotlin.internal.InlineOnly\npublic inline fun <T>
Comparator<T>.thenComparator(crossinline comparison: (a: T, b: T) -> Int): Comparator<T> =\n    Comparator { a,
b ->\n        val previousCompare = this@thenComparator.compare(a, b)\n        if (previousCompare != 0)
previousCompare else comparison(a, b)\n    }\n\n\n/**\n * Combines this comparator and the given [comparator] such
that the latter is applied only\n * when the former considered values equal.\n *\n * @sample
samples.comparisons.Comparisons.then\n *\npublic infix
fun <T> Comparator<T>.then(comparator: Comparator<in T>): Comparator<T> =\n    Comparator { a, b ->\n
val previousCompare = this@then.compare(a, b)\n        if (previousCompare != 0) previousCompare else
comparator.compare(a, b)\n    }\n\n\n/**\n * Combines this comparator and the given [comparator] such that the latter
is applied only\n * when the former considered values equal.\n *\n * @sample
samples.comparisons.Comparisons.thenDescending\n *\npublic infix fun <T>
Comparator<T>.thenDescending(comparator: Comparator<in T>): Comparator<T> =\n    Comparator<T> { a, b -
->\n        val previousCompare = this@thenDescending.compare(a, b)\n        if (previousCompare != 0)
previousCompare else comparator.compare(b, a)\n    }\n\n\n// Not so useful without type inference for receiver of
expression\n\n/**\n * Extends the given [comparator] of non-nullable values to a comparator of nullable values\n *
considering `null` value less than any other value.\n * Non-null values are compared with
the provided [comparator].\n *\n * @sample samples.comparisons.Comparisons.nullsFirstLastWithComparator\n
*\npublic fun <T : Any> nullsFirst(comparator: Comparator<in T>): Comparator<T?> =\n    Comparator { a, b ->\n
when {\n        a === b -> 0\n        a == null -> -1\n        b == null -> 1\n        else ->
comparator.compare(a, b)\n    }\n}\n\n\n/**\n * Provides a comparator of nullable [Comparable] values\n *
considering `null` value less than any other value.\n * Non-null values are compared according to their [natural
order][naturalOrder].\n *\n * @sample samples.comparisons.Comparisons.nullsFirstLastComparator\n
*\n@kotlin.internal.InlineOnly\npublic inline fun <T : Comparable<T>> nullsFirst(): Comparator<T?> =
nullsFirst(naturalOrder())\n\n\n/**\n * Extends the given [comparator] of non-nullable values to a comparator of
nullable values\n * considering `null` value greater than any other value.\n * Non-null values are compared with the
provided [comparator].\n *\n * @sample samples.comparisons.Comparisons.nullsFirstLastWithComparator\n *\npublic fun <T : Any>
nullsLast(comparator: Comparator<in T>): Comparator<T?> =\n    Comparator { a, b ->\n        when {\n            a
=== b -> 0\n            a == null -> 1\n            b == null -> -1\n            else -> comparator.compare(a, b)\n        }\n    }\n}\n\n\n/**\n * Provides a comparator of nullable [Comparable] values\n * considering `null` value greater than any
other value.\n * Non-null values are compared according to their [natural order][naturalOrder].\n *\n * @sample
samples.comparisons.Comparisons.nullsFirstLastComparator\n *\n@kotlin.internal.InlineOnly\npublic inline fun
<T : Comparable<T>> nullsLast(): Comparator<T?> = nullsLast(naturalOrder())\n\n\n/**\n * Returns a comparator
that compares [Comparable] objects in natural order.\n *\n * The natural order of a `Comparable` type here means
the order established by its `compareTo` function.\n *\n * @sample
samples.comparisons.Comparisons.naturalOrderComparator\n
*\npublic fun <T : Comparable<T>> naturalOrder(): Comparator<T> = @Suppress("UNCHECKED_CAST")
(NaturalOrderComparator as Comparator<T>)\n\n\n/**\n * Returns a comparator that compares [Comparable] objects
in reversed natural order.\n *\n * The natural order of a `Comparable` type here means the order established by its

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`compareTo` function.\n * \n * @sample samples.comparisons.Comparisons.nullsFirstLastWithComparator\n
*\npublic fun <T : Comparable<T>> reverseOrder(): Comparator<T> = @Suppress("UNCHECKED_CAST")\n
(ReverseOrderComparator as Comparator<T>)\n\n**\n * Returns a comparator that imposes the reverse ordering\n
of this comparator.\n * \n * @sample samples.comparisons.Comparisons.reversed\n
*\n@Suppress("EXTENSION_SHADOWED_BY_MEMBER")\npublic fun <T> Comparator<T>.reversed():\n
Comparator<T> = when (this) {\n is ReversedComparator -> this.comparator\n NaturalOrderComparator ->\n
@Suppress("UNCHECKED_CAST") (ReverseOrderComparator\n
as Comparator<T>)\n ReverseOrderComparator -> @Suppress("UNCHECKED_CAST")\n
(NaturalOrderComparator as Comparator<T>)\n else -> ReversedComparator(this)\n}\n\nprivate class\n
ReversedComparator<T>(public val comparator: Comparator<T>) : Comparator<T> {\n override fun compare(a:\n
T, b: T): Int = comparator.compare(b, a)\n @Suppress("VIRTUAL_MEMBER_HIDDEN")\n fun reversed():\n
Comparator<T> = comparator\n}\n\nprivate object NaturalOrderComparator : Comparator<Comparable<Any>> {\n\n
override fun compare(a: Comparable<Any>, b: Comparable<Any>): Int = a.compareTo(b)\n\n
@Suppress("VIRTUAL_MEMBER_HIDDEN")\n fun reversed(): Comparator<Comparable<Any>> =\n
ReverseOrderComparator\n}\n\nprivate object ReverseOrderComparator : Comparator<Comparable<Any>> {\n\n
override fun compare(a: Comparable<Any>, b: Comparable<Any>): Int = b.compareTo(a)\n\n
@Suppress("VIRTUAL_MEMBER_HIDDEN")\n fun reversed(): Comparator<Comparable<Any>> =\n
NaturalOrderComparator\n}\n\n"/**\n * Copyright\n
2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed\n
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("StandardKt")\npackage kotlin\n\nimport\n
kotlin.contracts.*\n\n**\n * An exception is thrown to indicate that a method body remains to be implemented.\n
*\n\npublic class NotImplementedError(message: String = "An operation is not implemented.") :\n
Error(message)\n\n**\n * Always throws [NotImplementedError] stating that operation is not implemented.\n
*\n\n\n@kotlin.internal.InlineOnly\npublic inline fun TODO(): Nothing = throw NotImplementedError()\n\n**\n * \n
Always throws [NotImplementedError] stating that operation is not implemented.\n * \n * @param reason a string\n
explaining why the implementation is missing.\n * \n\n@kotlin.internal.InlineOnly\npublic inline fun TODO(reason:\n
String): Nothing = throw NotImplementedError("An\n
operation is not implemented: $reason")\n\n\n**\n * Calls the specified function [block] and returns its result.\n
*\n * For detailed usage information see the documentation for [scope\n
functions](https://kotlinlang.org/docs/reference/scope-functions.html#run).\n
*\n\n@kotlin.internal.InlineOnly\npublic inline fun <R> run(block: () -> R): R {\n contract {\n\n
callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n }\n return block()\n}\n\n**\n * Calls the specified\n
function [block] with `this` value as its receiver and returns its result.\n * \n * For detailed usage information see the\n
documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#run).\n
*\n\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> T.run(block: T.() -> R): R {\n contract {\n\n
callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n }\n return block()\n}\n\n**\n * Calls the specified\n
function [block] with the given [receiver] as its receiver and returns\n
its result.\n * \n * For detailed usage information see the documentation for [scope\n
functions](https://kotlinlang.org/docs/reference/scope-functions.html#with).\n
*\n\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> with(receiver: T, block: T.() -> R): R {\n contract {\n\n
callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n }\n return receiver.block()\n}\n\n**\n * Calls the\n
specified function [block] with `this` value as its receiver and returns `this` value.\n * \n * For detailed usage\n
information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-\n
functions.html#apply).\n * \n\n@kotlin.internal.InlineOnly\npublic inline fun <T> T.apply(block: T.() -> Unit): T {\n\n
contract {\n callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n }\n block()\n return\n
this\n}\n\n**\n * Calls the specified function [block] with `this` value as its argument and returns `this` value.\n
*\n * For detailed usage information see the documentation

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c.toInt()).unsafeCast<Short>())\n}\n\n/**\n
 * Returns the greater of three values.\n *\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic actual
inline fun maxOf(a: Int, b: Int, c: Int): Int {\n    return JsMath.max(a, b, c)\n}\n\n/**\n * Returns the greater of three
values.\n *\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Long, b: Long,
c: Long): Long {\n    return maxOf(a, maxOf(b, c))\n}\n\n/**\n * Returns the greater of three values.\n * \n * If any
value is `NaN`, returns `NaN`.\n *\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic actual inline fun
maxOf(a: Float, b: Float, c: Float): Float {\n    return JsMath.max(a, b, c)\n}\n\n/**\n * Returns the greater of three
values.\n * \n * If any value is `NaN`, returns `NaN`.\n
*\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Double, b: Double, c:
Double): Double {\n    return JsMath.max(a, b, c)\n}\n\n/**\n * Returns the greater of the given values.\n * \n * If
there are
multiple equal maximal values, returns the first of them.\n *\n@SinceKotlin("1.4")\n\npublic actual fun <T :
Comparable<T>> maxOf(a: T, vararg other: T): T {\n    var max = a\n    for (e in other) max = maxOf(max, e)\n    return
max\n}\n\n/**\n * Returns the greater of the given values.\n *\n@SinceKotlin("1.4")\n\npublic actual fun
maxOf(a: Byte, vararg other: Byte): Byte {\n    var max = a\n    for (e in other) max = maxOf(max, e)\n    return
max\n}\n\n/**\n * Returns the greater of the given values.\n *\n@SinceKotlin("1.4")\n\npublic actual fun maxOf(a:
Short, vararg other: Short): Short {\n    var max = a\n    for (e in other) max = maxOf(max, e)\n    return
max\n}\n\n/**\n * Returns the greater of the given values.\n *\n@SinceKotlin("1.4")\n\npublic actual fun maxOf(a:
Int, vararg other: Int): Int {\n    var max = a\n    for (e in other) max = maxOf(max, e)\n    return max\n}\n\n/**\n
 * Returns the greater of the given values.\n *\n@SinceKotlin("1.4")\n\npublic actual fun maxOf(a:
Long, vararg other: Long): Long {\n    var max = a\n    for (e in other) max = maxOf(max, e)\n    return
max\n}\n\n/**\n * Returns the greater of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n
*\n@SinceKotlin("1.4")\n\npublic actual fun maxOf(a: Float, vararg other: Float): Float {\n    var max = a\n    for (e
in other) max = maxOf(max, e)\n    return max\n}\n\n/**\n * Returns the greater of the given values.\n * \n * If any
value is `NaN`, returns `NaN`.\n *\n@SinceKotlin("1.4")\n\npublic actual fun maxOf(a: Double, vararg other:
Double): Double {\n    var max = a\n    for (e in other) max = maxOf(max, e)\n    return max\n}\n\n/**\n * Returns
the smaller of two values.\n * \n * If values are equal, returns the first one.\n *\n@SinceKotlin("1.1")\n\npublic
actual fun <T : Comparable<T>> minOf(a: T, b: T): T {\n    return if (a <= b) a else b\n}\n\n/**\n * Returns the
smaller of two values.\n *\n@SinceKotlin("1.1")\n\n@kotlin.internal.InlineOnly\npublic actual
inline fun minOf(a: Byte, b: Byte): Byte {\n    return minOf(a.toInt(), b.toInt()).unsafeCast<Byte>())\n}\n\n/**\n
 * Returns the smaller of two values.\n *\n@SinceKotlin("1.1")\n\n@kotlin.internal.InlineOnly\npublic actual inline
fun minOf(a: Short, b: Short): Short {\n    return minOf(a.toInt(), b.toInt()).unsafeCast<Short>())\n}\n\n/**\n
 * Returns the smaller of two values.\n *\n@SinceKotlin("1.1")\n\n@kotlin.internal.InlineOnly\npublic actual inline
fun minOf(a: Int, b: Int): Int {\n    return JsMath.min(a, b)\n}\n\n/**\n * Returns the smaller of two values.\n
*\n@SinceKotlin("1.1")\n\n@Suppress("NOTHING_TO_INLINE")\n\npublic actual inline fun minOf(a: Long, b:
Long): Long {\n    return if (a <= b) a else b\n}\n\n/**\n * Returns the smaller of two values.\n * \n * If either
value is `NaN`, returns `NaN`.\n *\n@SinceKotlin("1.1")\n\n@kotlin.internal.InlineOnly\npublic actual inline fun
minOf(a: Float, b: Float): Float {\n    return JsMath.min(a, b)\n}\n\n/**\n * Returns the smaller
of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n
*\n@SinceKotlin("1.1")\n\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Double, b: Double):
Double {\n    return JsMath.min(a, b)\n}\n\n/**\n * Returns the smaller of three values.\n * \n * If there are multiple
equal minimal values, returns the first of them.\n *\n@SinceKotlin("1.1")\n\npublic actual fun <T :
Comparable<T>> minOf(a: T, b: T, c: T): T {\n    return minOf(a, minOf(b, c))\n}\n\n/**\n * Returns the smaller of
three values.\n *\n@SinceKotlin("1.1")\n\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Byte, b:
Byte, c: Byte): Byte {\n    return JsMath.min(a.toInt(), b.toInt(), c.toInt()).unsafeCast<Byte>())\n}\n\n/**\n
 * Returns the smaller of three values.\n *\n@SinceKotlin("1.1")\n\n@kotlin.internal.InlineOnly\npublic actual inline
fun minOf(a: Short, b: Short, c: Short): Short {\n    return JsMath.min(a.toInt(), b.toInt(),
c.toInt()).unsafeCast<Short>())\n}\n\n/**\n

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Returns the smaller of three values.\n *^@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic actual inline
fun minOf(a: Int, b: Int, c: Int): Int {\n    return JsMath.min(a, b, c)\n}\n\n/**\n * Returns the smaller of three
values.\n *^@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Long, b: Long,
c: Long): Long {\n    return minOf(a, minOf(b, c))\n}\n\n/**\n * Returns the smaller of three values.\n * \n * If any
value is `NaN`, returns `NaN`.\n *^@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic actual inline fun
minOf(a: Float, b: Float, c: Float): Float {\n    return JsMath.min(a, b, c)\n}\n\n/**\n * Returns the smaller of three
values.\n * \n * If any value is `NaN`, returns `NaN`.\n *^@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Double, b: Double, c:
Double): Double {\n    return JsMath.min(a, b, c)\n}\n\n/**\n * Returns the smaller of the given values.\n * \n * If
there are multiple
equal minimal values, returns the first of them.\n *^@SinceKotlin("1.4")\npublic actual fun <T :
Comparable<T>> minOf(a: T, vararg other: T): T {\n    var min = a\n    for (e in other) min = minOf(min, e)\n    return min\n}\n\n/**\n * Returns the smaller of the given values.\n *^@SinceKotlin("1.4")\npublic actual fun
minOf(a: Byte, vararg other: Byte): Byte {\n    var min = a\n    for (e in other) min = minOf(min, e)\n    return
min\n}\n\n/**\n * Returns the smaller of the given values.\n *^@SinceKotlin("1.4")\npublic actual fun minOf(a:
Short, vararg other: Short): Short {\n    var min = a\n    for (e in other) min = minOf(min, e)\n    return
min\n}\n\n/**\n * Returns the smaller of the given values.\n *^@SinceKotlin("1.4")\npublic actual fun minOf(a:
Int, vararg other: Int): Int {\n    var min = a\n    for (e in other) min = minOf(min, e)\n    return min\n}\n\n/**\n *
Returns the smaller of the given values.\n *^@SinceKotlin("1.4")\npublic actual fun minOf(a:
Long, vararg other: Long): Long {\n    var min = a\n    for (e in other) min = minOf(min, e)\n    return
min\n}\n\n/**\n * Returns the smaller of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n *^@SinceKotlin("1.4")\npublic actual fun minOf(a: Float, vararg other: Float): Float {\n    var min = a\n    for (e
in other) min = minOf(min, e)\n    return min\n}\n\n/**\n * Returns the smaller of the given values.\n * \n * If any
value is `NaN`, returns `NaN`.\n *^@SinceKotlin("1.4")\npublic actual fun minOf(a: Double, vararg other:
Double): Double {\n    var min = a\n    for (e in other) min = minOf(min, e)\n    return min\n}\n\n"/**\n * Copyright
2010-2023 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n *^@n\n// Auto-generated file. DO NOT
EDIT!\n\npackage kotlin\n\nimport kotlin.experimental.*\nimport
kotlin.jvm.*\n\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@JvmInline\npu
blic
value class ULong @kotlin.internal.IntrinsicConstEvaluation @PublishedApi internal constructor(@PublishedApi
internal val data: Long) : Comparable<ULong> {\n\n    companion object {\n        /**\n         * A constant holding
the minimum value an instance of ULong can have.\n         *^@n         public const val MIN_VALUE: ULong =
ULong(0)\n         *^@n         * A constant holding the maximum value an instance of ULong can have.\n         *^@n
        public const val MAX_VALUE: ULong = ULong(-1)\n         *^@n         * The number of bytes used to represent
an instance of ULong in a binary form.\n         *^@n         public const val SIZE_BYTES: Int = 8\n         *^@n         *
The number of bits used to represent an instance of ULong in a binary form.\n         *^@n         public const val
SIZE_BITS: Int = 64\n         *^@n         * Compares this value with the specified value for order.\n         *
Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n         * or a
positive number if it's greater than other.\n         *^@n         @kotlin.internal.InlineOnly\n         public inline operator fun
compareTo(other: UByte): Int = this.compareTo(other.toULong())\n         *^@n         * Compares this value with the
specified value for order.\n         * Returns zero if this value is equal to the specified other value, a negative number if
it's less than other,\n         * or a positive number if it's greater than other.\n         *^@n         @kotlin.internal.InlineOnly\n
        public inline operator fun compareTo(other: UShort): Int = this.compareTo(other.toULong())\n         *^@n         *
Compares this value with the specified value for order.\n         * Returns zero if this value is equal to the specified other
value, a negative number if it's less than other,\n         * or a positive number if it's greater than other.\n         *^@n
        @kotlin.internal.InlineOnly\n         public inline

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operator fun compareTo(other: UInt): Int = this.compareTo(other.toULong())\n\n /**\n * Compares this value
with the specified value for order.\n * Returns zero if this value is equal to the specified other value, a negative
number if it's less than other,\n * or a positive number if it's greater than other.\n */\n
@kotlin.internal.InlineOnly\n @Suppress("OVERRIDE_BY_INLINE")\n public override inline operator fun
compareTo(other: ULong): Int = ulongCompare(this.data, other.data)\n\n /** Adds the other value to this value.
*/\n @kotlin.internal.InlineOnly\n public inline operator fun plus(other: UByte): ULong =
this.plus(other.toULong())\n\n /** Adds the other value to this value. */\n @kotlin.internal.InlineOnly\n public
inline operator fun plus(other: UShort): ULong = this.plus(other.toULong())\n\n /** Adds the other value to this
value. */\n @kotlin.internal.InlineOnly\n public inline operator fun plus(other: UInt): ULong =
this.plus(other.toULong())\n\n /** Adds the other value to this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun plus(other:
ULong): ULong = ULong(this.data.plus(other.data))\n\n /** Subtracts the other value from this value. */\n
@kotlin.internal.InlineOnly\n public inline operator fun minus(other: UByte): ULong =
this.minus(other.toULong())\n\n /** Subtracts the other value from this value. */\n @kotlin.internal.InlineOnly\n
public inline operator fun minus(other: UShort): ULong = this.minus(other.toULong())\n\n /** Subtracts the other
value from this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun minus(other: UInt): ULong =
this.minus(other.toULong())\n\n /** Subtracts the other value from this value. */\n @kotlin.internal.InlineOnly\n
public inline operator fun minus(other: ULong): ULong = ULong(this.data.minus(other.data))\n\n /** Multiplies
this value by the other value. */\n @kotlin.internal.InlineOnly\n
public inline operator fun times(other: UByte): ULong = this.times(other.toULong())\n\n /** Multiplies this value
by the other value. */\n @kotlin.internal.InlineOnly\n public inline operator fun times(other: UShort): ULong =
this.times(other.toULong())\n\n /** Multiplies this value by the other value. */\n @kotlin.internal.InlineOnly\n
public inline operator fun times(other: UInt): ULong = this.times(other.toULong())\n\n /** Multiplies this value by
the other value. */\n @kotlin.internal.InlineOnly\n public inline operator fun times(other: ULong): ULong =
ULong(this.data.times(other.data))\n\n /** Divides this value by the other value, truncating the result to an integer
that is closer to zero. */\n @kotlin.internal.InlineOnly\n public inline operator fun div(other: UByte): ULong =
this.div(other.toULong())\n\n /** Divides this value by the other value, truncating the result to an integer that is
closer to zero. */\n @kotlin.internal.InlineOnly\n
public inline operator fun div(other: UShort): ULong = this.div(other.toULong())\n\n /** Divides this value by the
other value, truncating the result to an integer that is closer to zero. */\n @kotlin.internal.InlineOnly\n public
inline operator fun div(other: UInt): ULong = this.div(other.toULong())\n\n /** Divides this value by the other
value, truncating the result to an integer that is closer to zero. */\n @kotlin.internal.InlineOnly\n public inline
operator fun div(other: ULong): ULong = ulongDivide(this, other)\n\n /**\n * Calculates the remainder of
truncating division of this value by the other value.\n * \n * The result is always less than the divisor.\n */\n
@kotlin.internal.InlineOnly\n public inline operator fun rem(other: UByte): ULong = this.rem(other.toULong())\n\n
/**\n * Calculates the remainder of truncating division of this value by the other value.\n * \n * The result is
always less than the divisor.\n */\n
@kotlin.internal.InlineOnly\n public inline operator fun rem(other: UShort): ULong =
this.rem(other.toULong())\n\n /**\n * Calculates the remainder of truncating division of this value by the other
value.\n * \n * The result is always less than the divisor.\n */\n @kotlin.internal.InlineOnly\n public
inline operator fun rem(other: UInt): ULong = this.rem(other.toULong())\n\n /**\n * Calculates the remainder of
truncating division of this value by the other value.\n * \n * The result is always less than the divisor.\n */\n
@kotlin.internal.InlineOnly\n public inline operator fun rem(other: ULong): ULong = ulongRemainder(this,
other)\n\n /**\n * Divides this value by the other value, flooring the result to an integer that is closer to negative
infinity.\n * \n * For unsigned types, the results of flooring division and truncating division are the same.\n
*/\n @kotlin.internal.InlineOnly\n public inline fun floorDiv(other:
UByte): ULong = this.floorDiv(other.toULong())\n\n /**\n * Divides this value by the other value, flooring the
result to an integer that is closer to negative infinity.\n * \n * For unsigned types, the results of flooring division

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and truncating division are the same.\n *^n @kotlin.internal.InlineOnly\n public inline fun floorDiv(other:
UShort): ULong = this.floorDiv(other.toULong())\n /**\n * Divides this value by the other value, flooring the
result to an integer that is closer to negative infinity.\n * \n * For unsigned types, the results of flooring division
and truncating division are the same.\n *^n @kotlin.internal.InlineOnly\n public inline fun floorDiv(other:
UInt): ULong = this.floorDiv(other.toULong())\n /**\n * Divides this value by the other value, flooring the
result to an integer that is closer to negative infinity.\n * \n * For unsigned types, the results of flooring division
and truncating division
are the same.\n *^n @kotlin.internal.InlineOnly\n public inline fun floorDiv(other: ULong): ULong =
div(other)\n\n /**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n *
The result is always less than the divisor.\n * \n * For unsigned types, the remainders of flooring division and
truncating division are the same.\n *^n @kotlin.internal.InlineOnly\n public inline fun mod(other: UByte):
UByte = this.mod(other.toULong()).toUByte()\n\n /**\n * Calculates the remainder of flooring division of this
value by the other value.\n * \n * The result is always less than the divisor.\n * \n * For unsigned types, the
remainders of flooring division and truncating division are the same.\n *^n @kotlin.internal.InlineOnly\n
public inline fun mod(other: UShort): UShort = this.mod(other.toULong()).toUShort()\n\n /**\n * Calculates the
remainder of flooring division of this value
by the other value.\n * \n * The result is always less than the divisor.\n * \n * For unsigned types, the
remainders of flooring division and truncating division are the same.\n *^n @kotlin.internal.InlineOnly\n
public inline fun mod(other: UInt): UInt = this.mod(other.toULong()).toInt()\n\n /**\n * Calculates the
remainder of flooring division of this value by the other value.\n * \n * The result is always less than the
divisor.\n * \n * For unsigned types, the remainders of flooring division and truncating division are the same.\n
*^n @kotlin.internal.InlineOnly\n public inline fun mod(other: ULong): ULong = rem(other)\n\n /**\n *
Returns this value incremented by one.\n * \n * @sample samples.misc.Builtins.inc\n *^n
@kotlin.internal.InlineOnly\n public inline operator fun inc(): ULong = ULong(data.inc())\n\n /**\n * Returns
this value decremented by one.\n * \n * @sample samples.misc.Builtins.dec\n
*^n @kotlin.internal.InlineOnly\n public inline operator fun dec(): ULong = ULong(data.dec())\n\n /**
Creates a range from this value to the specified [other] value. *^n @kotlin.internal.InlineOnly\n public inline
operator fun rangeTo(other: ULong): ULongRange = ULongRange(this, other)\n\n /**\n * Creates a range from
this value up to but excluding the specified [other] value.\n * \n * If the [other] value is less than or equal to
`this` value, then the returned range is empty.\n *^n @SinceKotlin("1.7")\n @ExperimentalStdlibApi\n
@kotlin.internal.InlineOnly\n public inline operator fun rangeUntil(other: ULong): ULongRange = this until
other\n\n /**\n * Shifts this value left by the [bitCount] number of bits.\n * \n * Note that only the six
lowest-order bits of the [bitCount] are used as the shift distance.\n * \n * The shift distance actually used is therefore
always in the range `0..63`.\n *^n
@kotlin.internal.InlineOnly\n public inline infix fun shl(bitCount: Int): ULong = ULong(data shl bitCount)\n\n
/**\n * Shifts this value right by the [bitCount] number of bits, filling the leftmost bits with zeros.\n * \n *
Note that only the six lowest-order bits of the [bitCount] are used as the shift distance.\n * \n * The shift distance
actually used is therefore always in the range `0..63`.\n *^n @kotlin.internal.InlineOnly\n public inline infix
fun shr(bitCount: Int): ULong = ULong(data ushr bitCount)\n\n /** Performs a bitwise AND operation between
the two values. *^n @kotlin.internal.InlineOnly\n public inline infix fun and(other: ULong): ULong =
ULong(this.data and other.data)\n\n /** Performs a bitwise OR operation between the two values. *^n
@kotlin.internal.InlineOnly\n public inline infix fun or(other: ULong): ULong = ULong(this.data or other.data)\n
/** Performs a bitwise XOR operation between the two values. *^n @kotlin.internal.InlineOnly\n
public inline infix fun xor(other: ULong): ULong = ULong(this.data xor other.data)\n\n /** Inverts the bits in this
value. *^n @kotlin.internal.InlineOnly\n public inline fun inv(): ULong = ULong(data.inv())\n\n /**\n *
Converts this [ULong] value to [Byte].\n * \n * If this value is less than or equals to [Byte.MAX_VALUE], the
resulting `Byte` value represents\n * the same numerical value as this `ULong`.\n * \n * The resulting `Byte`
value is represented by the least significant 8 bits of this `ULong` value.\n * \n * Note that the resulting `Byte` value

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may be negative.\n    *\n    @kotlin.internal.InlineOnly\n    public inline fun toByte(): Byte = data.toByte()\n    /**\n     * Converts this [ULong] value to [Short].\n     *\n     * If this value is less than or equals to\n    [Short.MAX_VALUE], the resulting `Short` value represents\n     * the same numerical value as this `ULong`.\n     *\n     * The resulting `Short` value is\n    represented by the least significant 16 bits of this `ULong` value.\n     * Note that the resulting `Short` value may be\n    negative.\n    *\n    @kotlin.internal.InlineOnly\n    public inline fun toShort(): Short = data.toShort()\n    /**\n     * Converts this [ULong] value to [Int].\n     *\n     * If this value is less than or equals to [Int.MAX_VALUE], the\n    resulting `Int` value represents\n     * the same numerical value as this `ULong`.\n     *\n     * The resulting `Int`\n    value is represented by the least significant 32 bits of this `ULong` value.\n     * Note that the resulting `Int` value\n    may be negative.\n    *\n    @kotlin.internal.InlineOnly\n    public inline fun toInt(): Int = data.toInt()\n    /**\n     * Converts this [ULong] value to [Long].\n     *\n     * If this value is less than or equals to [Long.MAX_VALUE], the\n    resulting `Long` value represents\n     * the same numerical value as this `ULong`. Otherwise the result is\n    negative.\n     *\n     * The resulting `Long`\n    value has the same binary representation as this `ULong` value.\n    *\n    @kotlin.internal.InlineOnly\n    public\n    inline fun toLong(): Long = data\n    /**\n     * Converts this [ULong] value to [UByte].\n     *\n     * If this value\n    is less than or equals to [UByte.MAX_VALUE], the resulting `UByte` value represents\n     * the same numerical\n    value as this `ULong`.\n     *\n     * The resulting `UByte` value is represented by the least significant 8 bits of this\n    `ULong` value.\n    *\n    @kotlin.internal.InlineOnly\n    public inline fun toUByte(): UByte = data.toUByte()\n    /**\n     * Converts this [ULong] value to [UShort].\n     *\n     * If this value is less than or equals to\n    [UShort.MAX_VALUE], the resulting `UShort` value represents\n     * the same numerical value as this `ULong`.\n     *\n     * The resulting `UShort` value is represented by the least significant 16 bits of this `ULong` value.\n    *\n    @kotlin.internal.InlineOnly\n    public inline fun toUShort():\n    UShort = data.toUShort()\n    /**\n     * Converts this [ULong] value to [UInt].\n     *\n     * If this value is less than\n    or equals to [UInt.MAX_VALUE], the resulting `UInt` value represents\n     * the same numerical value as this\n    `ULong`.\n     *\n     * The resulting `UInt` value is represented by the least significant 32 bits of this `ULong`\n    value.\n    *\n    @kotlin.internal.InlineOnly\n    public inline fun toUInt(): UInt = data.toUInt()\n    /** Returns this\n    value. *\n    @kotlin.internal.InlineOnly\n    public inline fun toULong(): ULong = this\n    /**\n     * Converts\n    this [ULong] value to [Float].\n     *\n     * The resulting value is the closest `Float` to this `ULong` value.\n     * In\n    case when this `ULong` value is exactly between two `Float`s,\n     * the one with zero at least significant bit of\n    mantissa is selected.\n    *\n    @kotlin.internal.InlineOnly\n    public inline fun toFloat(): Float =\n    this.toDouble().toFloat()\n    /**\n     * Converts this\n    [ULong] value to [Double].\n     *\n     * The resulting value is the closest `Double` to this `ULong` value.\n     * In\n    case when this `ULong` value is exactly between two `Double`s,\n     * the one with zero at least significant bit of\n    mantissa is selected.\n    *\n    @kotlin.internal.InlineOnly\n    public inline fun toDouble(): Double =\n    ulongToDouble(data)\n    public override fun toString(): String = ulongToString(data)\n    /**\n     * Converts\n    this [Byte] value to [ULong].\n     *\n     * If this value is positive, the resulting `ULong` value represents the same\n    numerical value as this `Byte`.\n     *\n     * The least significant 8 bits of the resulting `ULong` value are the same as the\n    bits of this `Byte` value,\n     * whereas the most significant 56 bits are filled with the sign bit of this value.\n    *\n    @SinceKotlin("1.5")\n    @WasExperimental(ExperimentalUnsignedTypes::class)\n    @kotlin.internal.InlineOnly\n    public inline fun Byte.toULong(): ULong = ULong(this.toLong())\n    /**\n     * Converts this\n    [Short] value to [ULong].\n     *\n     * If this value is positive, the resulting `ULong` value represents the same\n    numerical value as this `Short`.\n     *\n     * The least significant 16 bits of the resulting `ULong` value are the same as\n    the bits of this `Short` value,\n     * whereas the most significant 48 bits are filled with the sign bit of this value.\n    *\n    @SinceKotlin("1.5")\n    @WasExperimental(ExperimentalUnsignedTypes::class)\n    @kotlin.internal.InlineOnly\n    public inline fun Short.toULong(): ULong = ULong(this.toLong())\n    /**\n     * Converts this [Int] value to [ULong].\n     *\n     * If this value is positive, the resulting `ULong` value represents the same numerical value as this `Int`.\n     *\n     * The least significant 32 bits of the resulting `ULong` value are the same as the bits of this `Int` value,\n     * whereas\n    the most significant 32 bits are filled with the sign bit of this value.\n    
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*^@SinceKotlin("1.5")^@WasExperimental(ExperimentalUnsignedTypes::class)^@kotlin.internal.InlineOnly^
npublic inline
    fun Int.toULong(): ULong = ULong(this.toLong())\n/**\n * Converts this [Long] value to [ULong].\n *\n * If this
value is positive, the resulting `ULong` value represents the same numerical value as this `Long`. \n *\n * The
resulting `ULong` value has the same binary representation as this `Long` value.\n
*^@SinceKotlin("1.5")^@WasExperimental(ExperimentalUnsignedTypes::class)^@kotlin.internal.InlineOnly^
npublic inline fun Long.toULong(): ULong = ULong(this)\n/**\n * Converts this [Float] value to [ULong].\n *\n *
The fractional part, if any, is rounded down towards zero.\n * Returns zero if this `Float` value is negative or `NaN`,
[ULong.MAX_VALUE] if it's bigger than `ULong.MAX_VALUE`. \n
*^@SinceKotlin("1.5")^@WasExperimental(ExperimentalUnsignedTypes::class)^@kotlin.internal.InlineOnly^
npublic inline fun Float.toULong(): ULong = doubleToULong(this.toDouble())\n/**\n * Converts this [Double]
value to [ULong].\n *\n * The fractional part, if any, is rounded down towards
zero.\n * Returns zero if this `Double` value is negative or `NaN`, [ULong.MAX_VALUE] if it's bigger than
`ULong.MAX_VALUE`. \n
*^@SinceKotlin("1.5")^@WasExperimental(ExperimentalUnsignedTypes::class)^@kotlin.internal.InlineOnly^
npublic inline fun Double.toULong(): ULong = doubleToULong(this)\n","/*\n * Copyright 2010-2022 JetBrains
s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0
license that can be found in the license/LICENSE.txt file.\n
*^@n@file:kotlin.jvm.JvmMultifileClass^@file:kotlin.jvm.JvmName("CollectionsKt")^@n^@package
kotlin.collections\n\n/^@NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\n/^@nimport kotlin.random.*\nimport
kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns 1st *element* from the list.\n * \n *
Throws an [IndexOutOfBoundsException] if the size of this list is less
than 1.\n *^@kotlin.internal.InlineOnly^npublic inline operator fun <T> List<T>.component1(): T {\n    return
get(0)\n}\n\n/**\n * Returns 2nd *element* from the list.\n * \n * Throws an [IndexOutOfBoundsException] if the
size of this list is less than 2.\n *^@kotlin.internal.InlineOnly^npublic inline operator fun <T>
List<T>.component2(): T {\n    return get(1)\n}\n\n/**\n * Returns 3rd *element* from the list.\n * \n * Throws an
[IndexOutOfBoundsException] if the size of this list is less than 3.\n *^@kotlin.internal.InlineOnly^npublic inline
operator fun <T> List<T>.component3(): T {\n    return get(2)\n}\n\n/**\n * Returns 4th *element* from the list.\n
*\n * Throws an [IndexOutOfBoundsException] if the size of this list is less than 4.\n
*^@kotlin.internal.InlineOnly^npublic inline operator fun <T> List<T>.component4(): T {\n    return
get(3)\n}\n\n/**\n * Returns 5th *element* from the list.\n * \n * Throws an [IndexOutOfBoundsException] if the
size of this list is less
than 5.\n *^@kotlin.internal.InlineOnly^npublic inline operator fun <T> List<T>.component5(): T {\n    return
get(4)\n}\n\n/**\n * Returns `true` if [element] is found in the collection.\n *^@npublic operator fun
<@kotlin.internal.OnlyInputTypes T> Iterable<T>.contains(element: T): Boolean {\n    if (this is Collection)\n    return contains(element)\n    return indexOf(element) >= 0\n}\n\n/**\n * Returns an element at the given [index] or
throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this collection.\n * \n * @sample
samples.collections.Collections.Elements.elementAt\n *^@npublic fun <T> Iterable<T>.elementAt(index: Int): T {\n
if (this is List)\n    return get(index)\n    return elementAtOrElse(index) { throw
IndexOutOfBoundsException("Collection doesn't contain element at index $index.") }\n}\n\n/**\n * Returns an
element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this list.\n
*\n * @sample
samples.collections.Collections.Elements.elementAt\n *^@kotlin.internal.InlineOnly^npublic inline fun <T>
List<T>.elementAt(index: Int): T {\n    return get(index)\n}\n\n/**\n * Returns an element at the given [index] or
the result of calling the [defaultValue] function if the [index] is out of bounds of this collection.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n *^@npublic fun <T>
Iterable<T>.elementAtOrElse(index: Int, defaultValue: (Int) -> T): T {\n    if (this is List)\n        return

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this.getOrElse(index, defaultValue)\n if (index < 0)\n     return defaultValue(index)\n val iterator = iterator()\n var count = 0\n while (iterator.hasNext()) {\n     val element = iterator.next()\n     if (index == count++)\n         return element\n } return defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the\n result of calling the [defaultValue] function if the [index] is out of bounds of this list.\n *\n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n\n@kotlin.internal.InlineOnly\npublic inline fun <T> List<T>.elementAtOrElse(index: Int, defaultValue: (Int) -> T): T {\n    return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this collection.\n *\n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n\npublic fun <T> Iterable<T>.elementAtOrNull(index: Int): T? {\n    if (this is List)\n        return this.getOrElse(index)\n    if (index < 0)\n        return null\n    val iterator = iterator()\n    var count = 0\n    while (iterator.hasNext()) {\n        val element = iterator.next()\n        if (index == count++)\n            return element\n    } return null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this list.\n *\n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n\n@kotlin.internal.InlineOnly\npublic inline fun <T> List<T>.elementAtOrNull(index: Int): T? {\n    return this.getOrElse(index)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n *\n * @sample samples.collections.Collections.Elements.find\n */\n\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.find(predicate: (T) -> Boolean): T? {\n    return firstOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n *\n * @sample samples.collections.Collections.Elements.find\n */\n\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.findLast(predicate: (T) -> Boolean): T? {\n    return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n *\n * @sample samples.collections.Collections.Elements.find\n */\n\n@kotlin.internal.InlineOnly\npublic inline fun <T> List<T>.findLast(predicate: (T) -> Boolean): T? {\n    return lastOrNull(predicate)\n}\n\n/**\n * Returns the first element.\n *\n * @throws NoSuchElementException if the collection is empty.\n */\n\npublic fun <T> Iterable<T>.first(): T {\n    when (this) {\n        is List -> return this.first()\n        else -> {\n            val iterator = iterator()\n            if (!iterator.hasNext())\n                throw NoSuchElementException("Collection is empty.")\n            return iterator.next()\n        }\n    }\n}\n\n/**\n * Returns the first element matching the given [predicate].\n *\n * @throws [NoSuchElementException] if no such element is found.\n */\n\npublic inline fun <T> Iterable<T>.first(predicate: (T) -> Boolean): T {\n    for (element in this) if (predicate(element)) return element\n    throw NoSuchElementException("Collection contains no element matching the predicate.")\n}\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to elements of this collection in iteration order,\n * or throws [NoSuchElementException] if no non-null value was produced.\n *\n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Any> Iterable<T>.firstNotNullOf(transform: (T) -> R?): R {\n    return firstNotNullOfOrNull(transform) ?: throw NoSuchElementException("No element of the collection was transformed to a non-null value.")\n}\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to elements of this collection in iteration order,\n * or `null` if no non-null value was produced.\n *\n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Any> Iterable<T>.firstNotNullOfOrNull(transform: (T) -> R?): R? {\n    for (element in this) {\n        val result = transform(element)\n        if (result != null) return result\n    } return null\n}\n\n/**\n * Returns the first element, or `null` if the collection is empty.\n */\n\npublic fun <T> Iterable<T>.firstOrNull(): T? {\n

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when (this) {\n      is List -> {\n          if (isEmpty())\n              return null\n          else\n              return this[0]\n      }\n      else -> {\n          val iterator = iterator()\n          if (!iterator.hasNext())\n              return null\n          return iterator.next()\n      }\n  }\n\n  * Returns the first element, or `null` if the list is empty.\n  *  

public fun <T> List<T>.firstOrNull(): T? {\n      return if (isEmpty()) null else this[0]\n  }\n\n  * Returns the first element matching the given [predicate], or `null` if element was not found.\n  *  

public inline fun <T> Iterable<T>.firstOrNull(predicate: (T) -> Boolean): T? {\n      for (element in this) if (predicate(element)) return element\n      return null\n  }\n\n  * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this list.\n  *  

@kotlin.internal.InlineOnly\npublic inline fun <T> List<T>.getOrNull(index: Int, defaultValue: (Int) -> T): T {\n      return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n  }\n\n  * Returns an element at the given [index] or `null` if the [index] is out of bounds of this list.\n  *  

@sample samples.collections.Collections.Elements.getOrNull\n  *  

public fun <T> List<T>.getOrNull(index: Int): T? {\n      return if (index >= 0 && index <= lastIndex) get(index) else null\n  }\n\n  * Returns first index of [element], or -1 if the collection does not contain element.\n  *  

public fun <@kotlin.internal.OnlyInputTypes T> Iterable<T>.indexOf(element: T): Int {\n      if (this is List) return this.indexOf(element)\n      var index = 0\n      for (item in this) {\n          checkIndexOverflow(index)\n          if (element == item)\n              return index\n              index++\n      }\n      return -1\n  }\n\n  * Returns first index of [element], or -1 if the list does not contain element.\n  *  

@Suppress("EXTENSION_SHADOWED_BY_MEMBER") // false warning, extension takes precedence in some cases\npublic fun <@kotlin.internal.OnlyInputTypes T> List<T>.indexOf(element: T): Int {\n      return indexOf(element)\n  }\n\n  * Returns index of the first element matching the given [predicate], or -1 if the collection does not contain such element.\n  *  

public inline fun <T> Iterable<T>.indexOfFirst(predicate: (T) -> Boolean): Int {\n      var index = 0\n      for (item in this) {\n          checkIndexOverflow(index)\n          if (predicate(item))\n              return index\n              index++\n      }\n      return -1\n  }\n\n  * Returns index of the first element matching the given [predicate], or -1 if the list does not contain such element.\n  *  

public inline fun <T> List<T>.indexOfFirst(predicate: (T) -> Boolean): Int {\n      var index = 0\n      for (item in this) {\n          if (predicate(item))\n              return index\n              index++\n      }\n      return -1\n  }\n\n  * Returns index of the last element matching the given [predicate], or -1 if the collection does not contain such element.\n  *  

public inline fun <T> Iterable<T>.indexOfLast(predicate: (T) -> Boolean): Int {\n      var lastIndex = -1\n      var index = 0\n      for (item in this) {\n          checkIndexOverflow(index)\n          if (predicate(item))\n              lastIndex = index\n              index++\n      }\n      return lastIndex\n  }\n\n  * Returns index of the last element matching the given [predicate], or -1 if the list does not contain such element.\n  *  

public inline fun <T> List<T>.indexOfLast(predicate: (T) -> Boolean): Int {\n      val iterator = this.listIterator(size)\n      while (iterator.hasPrevious()) {\n          if (predicate(iterator.previous()))\n              return iterator.nextIndex()\n      }\n      return -1\n  }\n\n  * Returns the last element.\n  *  

@throws NoSuchElementException if the collection is empty.\n  *  

@sample samples.collections.Collections.Elements.last\n  *  

public fun <T> Iterable<T>.last(): T {\n      when (this) {\n          is List -> return this.last()\n          else -> {\n              val iterator = iterator()\n              if (!iterator.hasNext())\n                  throw NoSuchElementException("Collection is empty.")\n              var last = iterator.next()\n              while (iterator.hasNext())\n                  last = iterator.next()\n              return last\n          }\n      }\n  }\n\n  * Returns the last element.\n  *  

@throws NoSuchElementException if the list is empty.\n  *  

@sample samples.collections.Collections.Elements.last\n  *  

public fun <T> List<T>.last(): T {\n      if (isEmpty())\n          throw NoSuchElementException("List is empty.")\n      return this[lastIndex]\n  }\n\n  * Returns the last element matching the given [predicate].\n  *  

@throws NoSuchElementException if no such element is found.\n  *  

@sample samples.collections.Collections.Elements.last\n  *  

public inline fun <T> Iterable<T>.last(predicate: (T) -> Boolean): T {\n      var last: T? = null\n      var found = false\n      for (element in this) {\n          if (predicate(element))\n              last = element\n              found = true\n      }\n      if (!found) throw NoSuchElementException("Collection contains no element matching the predicate.")\n  }

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@Suppress("UNCHECKED_CAST")\n    return last as T\n}\n\n/**\n * Returns the last element matching the
given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample
samples.collections.Collections.Elements.last\n
*\npublic inline fun <T> List<T>.last(predicate: (T) -> Boolean): T {\n    val iterator = this.listIterator(size)\n
while (iterator.hasPrevious()) {\n        val element = iterator.previous()\n        if (predicate(element)) return
element\n    }\n    throw NoSuchElementException("List contains no element matching the predicate.")\n}\n\n/**\n * Returns last index of [element], or -1 if the collection does not contain element.\n *\npublic fun
<@kotlin.internal.OnlyInputTypes T> Iterable<T>.lastIndexOf(element: T): Int {\n    if (this is List) return
this.lastIndexOf(element)\n    var lastIndex = -1\n    var index = 0\n    for (item in this) {\n
checkIndexOverflow(index)\n        if (element == item)\n            lastIndex = index\n            index++\n    }\n    return
lastIndex\n}\n\n/**\n * Returns last index of [element], or -1 if the list does not contain element.\n
*\n@Suppress("EXTENSION_SHADOWED_BY_MEMBER") // false warning, extension takes precedence in
some cases\npublic
fun <@kotlin.internal.OnlyInputTypes T> List<T>.lastIndexOf(element: T): Int {\n    return
lastIndexOf(element)\n}\n\n/**\n * Returns the last element, or `null` if the collection is empty.\n * \n * @sample
samples.collections.Collections.Elements.last\n *\npublic fun <T> Iterable<T>.lastOrNull(): T? {\n    when (this)
{\n        is List -> return if (isEmpty()) null else this[size - 1]\n        else -> {\n            val iterator = iterator()\n
if (!iterator.hasNext())\n                return null\n            var last = iterator.next()\n            while (iterator.hasNext())\n
                last = iterator.next()\n            return last\n        }\n    }\n}\n\n/**\n * Returns the last element, or `null` if the
list is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n *\npublic fun <T>
List<T>.lastOrNull(): T? {\n    return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element
matching the given [predicate], or `null`
if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n *\npublic inline
fun <T> Iterable<T>.lastOrNull(predicate: (T) -> Boolean): T? {\n    var last: T? = null\n    for (element in this) {\n
        if (predicate(element)) {\n            last = element\n        }\n    }\n    return last\n}\n\n/**\n * Returns the last
element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.last\n *\npublic inline fun <T> List<T>.lastOrNull(predicate: (T) ->
Boolean): T? {\n    val iterator = this.listIterator(size)\n    while (iterator.hasPrevious()) {\n        val element =
iterator.previous()\n        if (predicate(element)) return element\n    }\n    return null\n}\n\n/**\n * Returns a random
element from this collection.\n * \n * @throws NoSuchElementException if this collection is empty.\n
*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Collection<T>.random():
T {\n    return random(Random)\n}\n\n/**\n * Returns a random element from this collection using the specified
source of randomness.\n * \n * @throws NoSuchElementException if this collection is empty.\n
*\n@SinceKotlin("1.3")\npublic fun <T> Collection<T>.random(random: Random): T {\n    if (isEmpty())\n        throw
NoSuchElementException("Collection is empty.")\n    return elementAt(random.nextInt(size))\n}\n\n/**\n * Returns a random
element from this collection, or `null` if this collection is empty.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic
inline fun <T> Collection<T>.randomOrNull(): T? {\n    return randomOrNull(Random)\n}\n\n/**\n * Returns a
random element from this collection using the specified source of randomness, or `null` if this collection is empty.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T>
Collection<T>.randomOrNull(random: Random):
T? {\n    if (isEmpty())\n        return null\n    return elementAt(random.nextInt(size))\n}\n\n/**\n * Returns the
single element, or throws an exception if the collection is empty or has more than one element.\n
*\npublic fun <T>
Iterable<T>.single(): T {\n    when (this) {\n        is List -> return this.single()\n        else -> {\n            val iterator =
iterator()\n            if (!iterator.hasNext())\n                throw NoSuchElementException("Collection is empty.")\n            val
single = iterator.next()\n            if (iterator.hasNext())\n                throw
IllegalArgumentOutOfRangeException("Collection has more than one element.")\n            return single\n        }\n    }\n}\n\n/**\n * Returns the single element, or throws an exception if the list is empty or has more than one

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element.\n */\npublic fun <T> List<T>.single(): T {\n    return when (size) {\n        0 -> throw
NoSuchElementException("List is empty.")\n        1 -> this[0]\n        else -> throw
IllegalArgumentOutOfRangeException("List has more than one element.")\n    }\n}\n\n/**\n * Returns the single element
matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic
inline fun <T> Iterable<T>.single(predicate: (T) -> Boolean): T {\n    var single: T? = null\n    var found = false\n
for (element in this) {\n        if (predicate(element)) {\n            if (found) throw
IllegalArgumentOutOfRangeException("Collection contains more than one matching element.")\n                single = element\n
found = true\n            }\n        }\n        if (!found) throw NoSuchElementException("Collection contains no element
matching the predicate.")\n    }\n    @Suppress("UNCHECKED_CAST")\n    return single as T\n}\n\n/**\n * Returns
single element, or `null` if the collection is empty or has more than one element.\n */\npublic fun <T>
Iterable<T>.singleOrNull(): T? {\n    when (this) {\n        is List -> return if (size == 1) this[0] else null\n
else -> {\n            val iterator = iterator()\n            if (!iterator.hasNext())\n                return null\n            val single
= iterator.next()\n            if (iterator.hasNext())\n                return null\n            return single\n        }\n    }\n}\n\n/**\n * Returns single element, or `null` if the list is empty or has more than one element.\n */\npublic fun
<T> List<T>.singleOrNull(): T? {\n    return if (size == 1) this[0] else null\n}\n\n/**\n * Returns the single element
matching the given [predicate], or `null` if element was not found or more than one element was found.\n */\npublic
inline fun <T> Iterable<T>.singleOrNull(predicate: (T) -> Boolean): T? {\n    var single: T? = null\n    var found =
false\n    for (element in this) {\n        if (predicate(element)) {\n            if (found) return null\n            single =
element\n            found = true\n        }\n    }\n    if (!found) return null\n    return single\n}\n\n/**\n * Returns a list
containing
all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n *
@sample samples.collections.Collections.Transformations.drop\n */\npublic fun <T> Iterable<T>.drop(n: Int):
List<T> {\n    require(n >= 0) { "Requested element count $n is less than zero." }\n    if (n == 0) return toList()\n
val list: ArrayList<T>\n    if (this is Collection<*>) {\n        val resultSize = size - n\n        if (resultSize <= 0)\n            return emptyList()\n        if (resultSize == 1)\n            return listOf(last())\n        list = ArrayList<T>(resultSize)\n
if (this is List<T>) {\n            if (this is RandomAccess) {\n                for (index in n until size)\n                    list.add(this[index])\n            } else {\n                for (item in listIterator(n))\n                    list.add(item)\n            }\n        }\n        return list\n    }\n    else {\n        list = ArrayList<T>()\n        var count =
0\n        for (item in this) {\n            if (count >= n) list.add(item) else ++count\n        }\n        return
list.optimizeReadOnlyList()\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n *
@throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n */\npublic fun <T> List<T>.dropLast(n: Int): List<T> {\n
require(n >= 0) { "Requested element count $n is less than zero." }\n    return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given
[predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun <T>
List<T>.dropLastWhile(predicate: (T) -> Boolean): List<T> {\n    if (!isEmpty()) {\n        val iterator =
listIterator(size)\n        while (iterator.hasPrevious()) {\n            if (!predicate(iterator.previous())) {\n                return
take(iterator.nextIndex() + 1)\n            }\n        }\n    }\n    return emptyList()\n}\n\n/**\n * Returns a list containing all elements except first
elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n */\npublic inline fun <T> Iterable<T>.dropWhile(predicate:
(T) -> Boolean): List<T> {\n    var yielding = false\n    val list = ArrayList<T>()\n    for (item in this)\n        if
(yielding)\n            list.add(item)\n        else if (!predicate(item)) {\n            list.add(item)\n            yielding = true\n        }\n    return list\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n *
@sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun <T> Iterable<T>.filter(predicate: (T)
-> Boolean): List<T> {\n    return filterTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Returns a list containing only
elements matching the given [predicate].\n * \n * @param [predicate] function that takes the

```





```

sortedWith(compareByDescending(selector))\n\n/**\n
 * Returns a list of all elements sorted descending according to their natural sort order.\n * \n * The sort is _stable_.
It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T :
Comparable<T>> Iterable<T>.sortedDescending(): List<T> {\n    return sortedWith(reverseOrder())\n}\n\n/**\n
 * Returns a list of all elements sorted according to the specified [comparator].\n * \n * The sort is _stable_. It means
that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T>
Iterable<T>.sortedWith(comparator: Comparator<in T>): List<T> {\n    if (this is Collection) {\n        if (size <= 1)
return this.toList()\n        @Suppress("UNCHECKED_CAST")\n        return (toTypedArray<Any?>() as
Array<T>).apply { sortWith(comparator) }.asList()\n    }\n    return toMutableList().apply { sortWith(comparator)
}\n}\n\n/**\n
 * Returns an array of Boolean containing all of the elements of this collection.\n */\npublic
fun Collection<Boolean>.toBooleanArray(): BooleanArray {\n    val result = BooleanArray(size)\n    var index =
0\n    for (element in this)\n        result[index++] = element\n    return result\n}\n\n/**\n
 * Returns an array of Byte containing all of the elements of this collection.\n */\npublic fun Collection<Byte>.toByteArray(): ByteArray {\n
val result = ByteArray(size)\n    var index = 0\n    for (element in this)\n        result[index++] = element\n    return
result\n}\n\n/**\n
 * Returns an array of Char containing all of the elements of this collection.\n */\npublic fun
Collection<Char>.toCharArray(): CharArray {\n    val result = CharArray(size)\n    var index = 0\n    for (element in
this)\n        result[index++] = element\n    return result\n}\n\n/**\n
 * Returns an array of Double containing all of the elements of this collection.\n */\npublic fun Collection<Double>.toDoubleArray(): DoubleArray {\n
val result =
DoubleArray(size)\n    var index = 0\n    for (element
in this)\n        result[index++] = element\n    return result\n}\n\n/**\n
 * Returns an array of Float containing all of the elements of this collection.\n */\npublic fun Collection<Float>.toFloatArray(): FloatArray {\n
val result =
FloatArray(size)\n    var index = 0\n    for (element in this)\n        result[index++] = element\n    return
result\n}\n\n/**\n
 * Returns an array of Int containing all of the elements of this collection.\n */\npublic fun
Collection<Int>.toIntArray(): IntArray {\n    val result = IntArray(size)\n    var index = 0\n    for (element in this)\n
        result[index++] = element\n    return result\n}\n\n/**\n
 * Returns an array of Long containing all of the elements of this collection.\n */\npublic fun Collection<Long>.toLongArray(): LongArray {\n
val result =
LongArray(size)\n    var index = 0\n    for (element in this)\n        result[index++] = element\n    return
result\n}\n\n/**\n
 * Returns an array of Short containing all of the elements of this
collection.\n */\npublic fun Collection<Short>.toShortArray(): ShortArray {\n    val result = ShortArray(size)\n    var
index = 0\n    for (element in this)\n        result[index++] = element\n    return result\n}\n\n/**\n
 * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given collection.\n
 * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map
preserves the entry iteration order of the original collection.\n * \n * @sample
samples.collections.Collections.Transformations.associate\n */\npublic inline fun <T, K, V>
Iterable<T>.associate(transform: (T) -> Pair<K, V>): Map<K, V> {\n    val capacity =
mapCapacity(collectionSizeOrDefault(10)).coerceAtLeast(16)\n    return associateTo(LinkedHashMap<K,
V>(capacity), transform)\n}\n\n/**\n
 * Returns a [Map] containing the elements from the given collection indexed
by the key\n * returned from [keySelector] function applied to
each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets
added to the map.\n * \n * The returned map preserves the entry iteration order of the original collection.\n * \n *
@sample samples.collections.Collections.Transformations.associateBy\n */\npublic inline fun <T, K>
Iterable<T>.associateBy(keySelector: (T) -> K): Map<K, T> {\n    val capacity =
mapCapacity(collectionSizeOrDefault(10)).coerceAtLeast(16)\n    return associateByTo(LinkedHashMap<K,
T>(capacity), keySelector)\n}\n\n/**\n
 * Returns a [Map] containing the values provided by [valueTransform] and
indexed by [keySelector] functions applied to elements of the given collection.\n * \n * If any two elements would
have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves
the entry iteration order of the original collection.\n * \n * @sample
samples.collections.Collections.Transformations.associateByWithValueTransform\n

```

```

*^public inline fun <T, K, V> Iterable<T>.associateBy(keySelector: (T) -> K, valueTransform: (T) -> V):
Map<K, V> {\n  val capacity = mapCapacity(collectionSizeOrDefault(10)).coerceAtLeast(16)\n  return
associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Populates and
returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function
applied to each element of the given collection\n * and value is the element itself.\n * \n * If any two elements
would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample
samples.collections.Collections.Transformations.associateByTo\n */\npublic inline fun <T, K, M : MutableMap<in
K, in T>> Iterable<T>.associateByTo(destination: M, keySelector: (T) -> K): M {\n  for (element in this) {\n
destination.put(keySelector(element), element)\n  }\n  return destination\n}\n\n/**\n * Populates and returns the
[destination]
mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is
provided by the [valueTransform] function applied to elements of the given collection.\n * \n * If any two elements
would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample
samples.collections.Collections.Transformations.associateByToWithValueTransform\n */\npublic inline fun <T, K,
V, M : MutableMap<in K, in V>> Iterable<T>.associateByTo(destination: M, keySelector: (T) -> K,
valueTransform: (T) -> V): M {\n  for (element in this) {\n    destination.put(keySelector(element),
valueTransform(element))\n  }\n  return destination\n}\n\n/**\n * Populates and returns the [destination] mutable
map with key-value pairs\n * provided by [transform] function applied to each element of the given collection.\n *
\n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample
samples.collections.Collections.Transformations.associateTo\n */\npublic inline fun <T, K, V, M : MutableMap<in K, in V>>
Iterable<T>.associateTo(destination: M, transform:
(T) -> Pair<K, V>): M {\n  for (element in this) {\n    destination += transform(element)\n  }\n  return
destination\n}\n\n/**\n * Returns a [Map] where keys are elements from the given collection and values are\n *
produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one
gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original collection.\n *
\n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin("1.3")\npublic
inline fun <K, V> Iterable<K>.associateWith(valueSelector: (K) -> V): Map<K, V> {\n  val result =
LinkedHashMap<K, V>(mapCapacity(collectionSizeOrDefault(10)).coerceAtLeast(16))\n  return
associateWithTo(result, valueSelector)\n}\n\n/**\n * Populates and returns
the [destination] mutable map with key-value pairs for each element of the given collection,\n * where key is the
element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements
are equal, the last one overwrites the former value in the map.\n * \n * @sample
samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin("1.3")\npublic inline fun
<K, V, M : MutableMap<in K, in V>> Iterable<K>.associateWithTo(destination: M, valueSelector: (K) -> V): M
{\n  for (element in this) {\n    destination.put(element, valueSelector(element))\n  }\n  return
destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <T, C :
MutableCollection<in T>> Iterable<T>.toCollection(destination: C): C {\n  for (item in this) {\n
destination.add(item)\n  }\n  return destination\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun <T> Iterable<T>.toHashSet():
HashSet<T> {\n  return toCollection(HashSet<T>(mapCapacity(collectionSizeOrDefault(12))))\n}\n\n/**\n *
Returns a [List] containing all elements.\n */\npublic fun <T> Iterable<T>.toList(): List<T> {\n  if (this is
Collection) {\n    return when (size) {\n      0 -> emptyList()\n      1 -> listOf(if (this is List) get(0) else
iterator().next())\n      else -> this.toMutableList()\n    }\n  }\n  return
this.toMutableList().optimizeReadOnlyList()\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of
this collection.\n */\npublic fun <T> Iterable<T>.toMutableList(): MutableList<T> {\n  if (this is Collection<T>)\n
return this.toMutableList()\n  return toCollection(ArrayList<T>())\n}\n\n/**\n * Returns a new [MutableList]
filled with all elements of this collection.\n */\npublic fun <T> Collection<T>.toMutableList(): MutableList<T> {\n
return ArrayList(this)\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The

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returned set preserves the element iteration order of the original collection.\n *\npublic fun <T>
Iterable<T>.toSet(): Set<T> {\n    if (this is Collection) {\n        return when (size) {\n            0 -> emptySet()\n            1 -> setOf(if (this is List) this[0] else iterator().next())\n            else ->
toCollection(LinkedHashSet<T>(mapCapacity(size)))\n        }\n    }\n    return
toCollection(LinkedHashSet<T>()).optimizeReadOnlySet()\n}\n\n/**\n * Returns a single list of all elements
yielded from results of [transform] function being invoked on each element of original collection.\n * \n * @sample
samples.collections.Collections.Transformations.flatMap\n *\npublic inline fun <T, R>
Iterable<T>.flatMap(transform: (T) -> Iterable<R>): List<R> {\n    return flatMapTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being
invoked on each element of original collection.\n * \n * @sample
samples.collections.Collections.Transformations.flatMap\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapSequence")\npublic inline fun <T, R>
Iterable<T>.flatMap(transform: (T) -> Sequence<R>): List<R> {\n    return flatMapTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being
invoked on each element\n * and its index in the original collection.\n * \n * @sample
samples.collections.Collections.Transformations.flatMap\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedIterable")\n@kotlin.internal.InlineOnly\npublic
inline fun <T, R> Iterable<T>.flatMapIndexed(transform: (index: Int, T) -> Iterable<R>): List<R> {\n    return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single
list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in
the original collection.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedSequence")\n@kotlin.internal.InlineOnly\npublic
inline fun <T, R> Iterable<T>.flatMapIndexed(transform: (index: Int, T) -> Sequence<R>): List<R> {\n    return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Appends all elements yielded from results of
[transform] function being invoked on each element\n * and its index in the original collection, to the given
[destination].\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedIterableTo")\n@kotlin.internal.InlineOnly\npublic
inline fun <T, R, C : MutableCollection<in R>> Iterable<T>.flatMapIndexedTo(destination: C, transform: (index: Int, T)
-> Iterable<R>): C {\n    var index = 0\n    for (element in this) {\n        val list =
transform(checkIndexOverflow(index++), element)\n        destination.addAll(list)\n    }\n    return
destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each
element\n * and its index in the original collection, to the given [destination].\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedSequenceTo")\n@kotlin.internal.InlineOnly\npublic
inline fun <T, R, C : MutableCollection<in R>> Iterable<T>.flatMapIndexedTo(destination: C, transform:
(index: Int, T) -> Sequence<R>): C {\n    var index = 0\n    for (element in this) {\n        val list =
transform(checkIndexOverflow(index++), element)\n        destination.addAll(list)\n    }\n    return
destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being
invoked on each element of original collection, to the given [destination].\n *\npublic inline fun <T, R, C :
MutableCollection<in R>> Iterable<T>.flatMapTo(destination: C, transform: (T) -> Iterable<R>): C {\n    for
(element in this) {\n        val list = transform(element)\n        destination.addAll(list)\n    }\n    return
destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each
element of original collection, to the given [destination].\n

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*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapSequenceTo")\npublic inline fun <T, R, C :
MutableCollection<in R>> Iterable<T>.flatMapTo(destination: C, transform: (T) -> Sequence<R>): C {\n for
(element in this) {\n     val list = transform(element)\n
        destination.addAll(list)\n     }\n return destination}\n\n**\n * Groups elements of the original collection by
the key returned by the given [keySelector] function\n * applied to each element and returns a map where each
group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration
order of the keys produced from the original collection.\n * \n * @sample
samples.collections.Collections.Transformations.groupBy\n *\npublic inline fun <T, K>
Iterable<T>.groupBy(keySelector: (T) -> K): Map<K, List<T>> {\n return groupByTo(LinkedHashMap<K,
MutableList<T>>(), keySelector)\n}\n\n**\n * Groups values returned by the [valueTransform] function applied to
each element of the original collection\n * by the key returned by the given [keySelector] function applied to the
element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The
returned map preserves the entry iteration
order of the keys produced from the original collection.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n *\npublic inline fun <T, K, V>
Iterable<T>.groupBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, List<V>> {\n return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n**\n * Groups elements
of the original collection by the key returned by the given [keySelector] function\n * applied to each element and
puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The
[destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n *\npublic inline
fun <T, K, M : MutableMap<in K, MutableList<T>>> Iterable<T>.groupByTo(destination: M, keySelector: (T) ->
K): M {\n for (element in this) {\n     val key = keySelector(element)\n     val list = destination.getOrPut(key) {
ArrayList<T>() }\n     list.add(element)\n
}\n return destination}\n\n**\n * Groups values returned by the [valueTransform] function applied to each
element of the original collection\n * by the key returned by the given [keySelector] function applied to the
element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n *
@return The [destination] map.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n *\npublic inline fun <T, K, V, M :
MutableMap<in K, MutableList<V>>> Iterable<T>.groupByTo(destination: M, keySelector: (T) -> K,
valueTransform: (T) -> V): M {\n for (element in this) {\n     val key = keySelector(element)\n     val list =
destination.getOrPut(key) { ArrayList<V>() }\n     list.add(valueTransform(element))\n     }\n return
destination}\n\n**\n * Creates a [Grouping] source from a collection to be used later with one of group-and-fold
operations\n * using the specified [keySelector] function to
extract a key from each element.\n * \n * @sample samples.collections.Grouping.groupingByEachCount\n
*\n@SinceKotlin("1.1")\npublic inline fun <T, K> Iterable<T>.groupingBy(crossinline keySelector: (T) -> K):
Grouping<T, K> {\n return object : Grouping<T, K> {\n     override fun sourceIterator(): Iterator<T> =
this@groupingBy.iterator()\n     override fun keyOf(element: T): K = keySelector(element)\n     }\n}\n\n**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original
collection.\n * \n * @sample samples.collections.Collections.Transformations.map\n *\npublic inline fun <T, R>
Iterable<T>.map(transform: (T) -> R): List<R> {\n return mapTo(ArrayList<R>(collectionSizeOrDefault(10)),
transform)\n}\n\n**\n * Returns a list containing the results of applying the given [transform] function\n * to each
element and its index in the original collection.\n * @param [transform] function that takes the index of an
element and the element itself\n * and returns the result of the transform applied to the element.\n *\npublic inline
fun <T, R> Iterable<T>.mapIndexed(transform: (index: Int, T) -> R): List<R> {\n return
mapIndexedTo(ArrayList<R>(collectionSizeOrDefault(10)), transform)\n}\n\n**\n * Returns a list containing only
the non-null results of applying the given [transform] function\n * to each element and its index in the original
collection.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns

```

the result of the transform applied to the element.

```

public inline fun <T, R : Any>
Iterable<T>.mapIndexedNotNull(transform: (index: Int, T) -> R?): List<R> {
    return
    mapIndexedNotNullTo(ArrayList<R>(), transform)
}

```

\* Applies the given [transform] function to each element and its index in the original collection and appends only the non-null results to the given [destination].

\* @param [transform] function that takes

- the index of an element and the element itself
- and returns the result of the transform applied to the element.

```

public inline fun <T, R : Any, C : MutableCollection<in R>> Iterable<T>.mapIndexedNotNullTo(destination: C, transform: (index: Int, T) -> R?): C {
    forEachIndexed { index, element -> transform(index, element)?.let { destination.add(it) } }
    return destination
}

```

\* Applies the given [transform] function to each element and its index in the original collection and appends the results to the given [destination].

\* @param [transform] function that takes the index of an element and the element itself and returns the result of the transform applied to the element.

```

public inline fun <T, R, C : MutableCollection<in R>> Iterable<T>.mapIndexedNotNullTo(destination: C, transform: (index: Int, T) -> R): C {
    var index = 0
    for (item in this)
        destination.add(transform(checkIndexOverflow(index++), item))
    return destination
}

```

\* Returns a list containing only the non-null results of applying the given [transform] function to each element in the original collection.

\* @sample samples.collections.Collections.Transformations.mapNotNull

```

public inline fun <T, R : Any> Iterable<T>.mapNotNull(transform: (T) -> R?): List<R> {
    return
    mapNotNullTo(ArrayList<R>(), transform)
}

```

\* Applies the given [transform] function to each element in the original collection and appends only the non-null results to the given [destination].

```

public inline fun <T, R : Any, C : MutableCollection<in R>> Iterable<T>.mapNotNullTo(destination: C, transform: (T) -> R?): C {
    forEach { element -> transform(element)?.let { destination.add(it) } }
    return destination
}

```

\* Applies the given [transform] function to each element of the original collection and appends the results to the given [destination].

```

public inline fun <T, R, C : MutableCollection<in R>> Iterable<T>.mapTo(destination: C, transform: (T) -> R): C {
    for (item in this)
        destination.add(transform(item))
    return destination
}

```

\* Returns a lazy [Iterable] that wraps each element of the original collection into an [IndexedValue] containing the index of that element and the element itself.

```

public fun <T>
Iterable<T>.withIndex(): Iterable<IndexedValue<T>> {
    return IndexingIterable { iterator() }
}

```

\* Returns a list containing only distinct elements from the given collection.

\* Among equal elements of the given collection, only the first one will be present in the resulting list.

\* The elements in the resulting list are in the same order as they were in the source collection.

\* @sample samples.collections.Collections.Transformations.distinctAndDistinctBy

```

public fun <T> Iterable<T>.distinct(): List<T> {
    return this.toMutableSet().toList()
}

```

\* Returns a list containing only elements from the given collection having

- distinct keys returned by the given [selector] function.
- Among elements of the given collection with equal keys, only the first one will be present in the resulting list.
- The elements in the resulting list are in the same order as they were in the source collection.

\* @sample samples.collections.Collections.Transformations.distinctAndDistinctBy

```

public inline fun <T, K>
Iterable<T>.distinctBy(selector: (T) -> K): List<T> {
    val set = HashSet<K>()
    val list = ArrayList<T>()
    for (e in this) {
        val key = selector(e)
        if (set.add(key))
            list.add(e)
    }
    return list
}

```

\* Returns a set containing all elements that are contained by both this collection and the specified collection.

\* The returned set preserves the element iteration order of the original collection.

\* To get a set containing all elements that are contained at least in one of these collections use [union].

```

public infix fun <T>
Iterable<T>.intersect(other: Iterable<T>): Set<T> {
    val set = this.toMutableSet()
    set.retainAll(other)
    return set
}

```

\* Returns a set containing all elements that are contained by this collection and not contained by the specified collection.

\* The returned set preserves the element iteration order of the original collection.

```

public infix fun <T>
Iterable<T>.subtract(other: Iterable<T>): Set<T> {
    val set =
    this.toMutableSet()
    set.removeAll(other)
    return set
}

```

\* Returns a new [MutableSet] containing all distinct elements from the given collection.

\* The returned set preserves the element iteration order of the

```

original collection.\n */\npublic fun <T> Iterable<T>.toMutableSet(): MutableSet<T> {\n    return when (this) {\n        is Collection<T> -> LinkedHashSet(this)\n        else -> toCollection(LinkedHashSet<T>())\n    }\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n */\n * \n * \n * The returned set preserves the element iteration order of the original collection.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\n\npublic infix fun <T> Iterable<T>.union(other: Iterable<T>): Set<T> {\n    val set = this.toMutableSet()\n    set.addAll(other)\n    return set\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * Note that if the collection contains no elements, the function returns `true`\n * because there are no elements in it that _do not_ match the predicate.\n * See a more detailed explanation of this logic concept in ["Vacuous truth"](https://en.wikipedia.org/wiki/Vacuous_truth) article.\n */\n * \n * @sample\n * samples.collections.Collections.Aggregates.all\n */\n\npublic inline fun <T> Iterable<T>.all(predicate: (T) -> Boolean): Boolean {\n    if (this is Collection && isEmpty()) return true\n    for (element in this) if (!predicate(element)) return false\n    return true\n}\n\n/**\n * Returns `true` if collection has at least one element.\n */\n * \n * @sample\n * samples.collections.Collections.Aggregates.any\n */\n\npublic fun <T> Iterable<T>.any(): Boolean {\n    if (this is Collection) return !isEmpty()\n    return iterator().hasNext()\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n */\n * \n * @sample\n * samples.collections.Collections.Aggregates.anyWithPredicate\n */\n\npublic inline fun <T> Iterable<T>.any(predicate: (T) -> Boolean): Boolean {\n    if (this is Collection && isEmpty()) return false\n    for (element in this) if (predicate(element)) return true\n    return false\n}\n\n/**\n * Returns the number of elements in this collection.\n */\n\npublic fun <T> Iterable<T>.count(): Int {\n    if (this is Collection) return size\n    var count = 0\n    for (element in this) checkCountOverflow(++count)\n    return count\n}\n\n/**\n * Returns the number of elements in this collection.\n */\n\n@kotlin.internal\npublic inline fun <T> Collection<T>.count(): Int {\n    return size\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\n\npublic inline fun <T> Iterable<T>.count(predicate: (T) -> Boolean): Int {\n    if (this is Collection && isEmpty()) return 0\n    var count = 0\n    for (element in this) if (predicate(element)) checkCountOverflow(++count)\n    return count\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the collection is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\n\npublic inline fun <T, R> Iterable<T>.fold(initial: R, operation: (acc: R, T) -> R): R {\n    var accumulator = initial\n    for (element in this) accumulator = operation(accumulator, element)\n    return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original collection.\n * \n * Returns the specified [initial] value if the collection is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\n\npublic inline fun <T, R> Iterable<T>.foldIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): R {\n    var index = 0\n    var accumulator = initial\n    for (element in this) accumulator = operation(checkIndexOverflow(index++), accumulator, element)\n    return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the list is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\n\npublic inline fun <T, R> List<T>.foldRight(initial: R, operation: (T, acc: R) -> R): R {\n    var accumulator = initial\n    if (!isEmpty()) {\n        val iterator = listIterator(size)\n        while (iterator.hasPrevious()) {\n            accumulator = operation(iterator.previous(), accumulator)\n        }\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original list and current accumulator value.\n * \n * Returns the specified [initial] value if the list is empty.\n */\n * \n *

```

@param [operation] function that takes the index of an element, the element itself and current accumulator value, and calculates the next accumulator value.

```

public inline fun <T, R> List<T>.foldRightIndexed(initial:
R, operation: (index: Int, T, acc: R) -> R): R {
    var accumulator = initial
    if (!isEmpty()) {
        val iterator = listIterator(size)
        while (iterator.hasPrevious()) {
            val index = iterator.previousIndex()
            accumulator = operation(index, iterator.previous(), accumulator)
        }
    }
    return accumulator
}

```

Performs the given [action] on each element.

```

@kotlin.internal.HidesMembers
public inline fun <T>
Iterable<T>.forEach(action: (T) -> Unit): Unit {
    for (element in this) action(element)
}

```

Performs the given [action] on each element, providing sequential index with the element.

```

@param [action] function that
takes the index of an element and the element itself
and performs the action on the element.
public inline
fun <T> Iterable<T>.forEachIndexed(action: (index: Int, T) -> Unit): Unit {
    var index = 0
    for (item in this)
        action(checkIndexOverflow(index++), item)
}

```

\* Returns the largest element. \* If any of elements is `NaN` returns `NaN`. \* @throws NoSuchElementException if the collection is empty.

```

@SinceKotlin("1.7")
@kotlin.jvm.JvmName("maxOrThrow")
@Suppress("CONFLICTING_OVERLOADS")
public fun Iterable<Double>.max(): Double {
    val iterator = iterator()
    if (!iterator.hasNext()) throw
        NoSuchElementException()
    var max = iterator.next()
    while (iterator.hasNext()) {
        val e =
            iterator.next()
        max = maxOf(max, e)
    }
    return max
}

```

\* Returns the largest element. \* If any of elements is `NaN` returns `NaN`. \* @throws NoSuchElementException if the collection is empty.

```

@SinceKotlin("1.7")
@kotlin.jvm.JvmName("maxOrThrow")
@Suppress("CONFLICTING_OVERLOADS")
public fun Iterable<Float>.max(): Float {
    val iterator = iterator()
    if (!iterator.hasNext()) throw
        NoSuchElementException()
    var max = iterator.next()
    while
        (iterator.hasNext()) {
        val e = iterator.next()
        max = maxOf(max, e)
    }
    return max
}

```

\* Returns the largest element. \* @throws NoSuchElementException if the collection is empty.

```

@SinceKotlin("1.7")
@kotlin.jvm.JvmName("maxOrThrow")
@Suppress("CONFLICTING_OVERLOADS")
public fun <T : Comparable<T>> Iterable<T>.max(): T {
    val iterator = iterator()
    if
        (!iterator.hasNext()) throw
        NoSuchElementException()
    var max = iterator.next()
    while (iterator.hasNext())
        {
        val e = iterator.next()
        if (max < e) max = e
    }
    return max
}

```

\* Returns the first element yielding the largest value of the given function. \* @throws NoSuchElementException if the collection is empty. \* @sample samples.collections.Collections.Aggregates.maxBy

```

@SinceKotlin("1.7")
@kotlin.jvm.JvmName("maxByOrNull")
@Suppress("CONFLICTING_OVERLOADS")
public inline fun <T, R : Comparable<R>> Iterable<T>.maxBy(selector:
(T) -> R): T {
    val iterator = iterator()
    if (!iterator.hasNext()) throw
        NoSuchElementException()
    var
        maxElem = iterator.next()
    if (!iterator.hasNext()) return maxElem
    var maxV = selector(maxElem)
    do
        {
        val e = iterator.next()
        val v = selector(e)
        if (maxV < v) {
            maxElem = e
            maxV = v
        }
    } while (iterator.hasNext())
    return maxElem
}

```

\* Returns the first element yielding the largest value of the given function or `null` if there are no elements. \* @sample samples.collections.Collections.Aggregates.maxByOrNull

```

@SinceKotlin("1.4")
public inline fun <T, R :
Comparable<R>> Iterable<T>.maxByOrNull(selector: (T) -> R): T? {
    val iterator = iterator()
    if
        (!iterator.hasNext()) return
        null
    var maxElem = iterator.next()
    if (!iterator.hasNext()) return maxElem
    var
        maxV = selector(maxElem)
    do
        {
        val e = iterator.next()
        val v = selector(e)
        if (maxV < v) {
            maxElem = e
            maxV = v
        }
    } while
        (iterator.hasNext())
    return maxElem
}

```

\* Returns the largest value among all values produced by [selector] function \* applied to each element in the collection. \* If any of values produced by [selector] function is `NaN`, the returned result is `NaN`. \* @throws NoSuchElementException if the collection is empty.

```

@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@kotlin.internal.InlineOnly
public inline fun <T> Iterable<T>.maxOf(selector: (T) ->
Double): Double {
    val iterator = iterator()
    if (!iterator.hasNext()) throw
        NoSuchElementException()
    var

```

```

maxValue = selector(iterator.next())\n while (iterator.hasNext()) {\n     val v = selector(iterator.next())\n     maxValue = maxOf(maxValue, v)\n } return maxValue\n}\n\n/*\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the collection.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.maxOf(selector: (T) -> Float): Float {\n    val iterator = iterator()\n    if (!iterator.hasNext()) throw NoSuchElementException()\n    var\n    maxValue = selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v = selector(iterator.next())\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/*\n * Returns the largest value among all\n * values produced by [selector] function\n * applied to each element in the collection.\n * \n * @throws\n * NoSuchElementException if the\n * collection is empty.\n */\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>>\nIterable<T>.maxOf(selector: (T) -> R): R {\n    val iterator = iterator()\n    if (!iterator.hasNext()) throw\n    NoSuchElementException()\n    var maxValue = selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v\n        = selector(iterator.next())\n        if (maxValue < v) {\n            maxValue = v\n        }\n    }\n    return\n    maxValue\n}\n\n/*\n * Returns the largest value among all values produced by [selector] function\n * applied to\n * each element in the collection or `null` if there are no elements.\n * \n * If any of values produced by [selector]\n * function is `NaN`, the returned result is `NaN`.\n */\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic\ninline fun <T> Iterable<T>.maxOfOrNull(selector: (T) -> Double): Double? {\n    val iterator = iterator()\n    if\n    (!iterator.hasNext()) return null\n    var maxValue = selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v = selector(iterator.next())\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/*\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the\n * collection or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the\n * returned result is `NaN`.\n */\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.maxOfOrNull(selector: (T)\n-> Float): Float? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var maxValue =\n    selector(iterator.next())\n    while (iterator.hasNext())\n    {\n        val v = selector(iterator.next())\n        maxValue = maxOf(maxValue, v)\n    }\n    return\n    maxValue\n}\n\n/*\n * Returns the largest value among all values produced by [selector] function\n * applied to\n * each element in the collection or `null` if there are no elements.\n */\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>>\nIterable<T>.maxOfOrNull(selector: (T) -> R): R? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return\n    null\n    var maxValue = selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v =\n        selector(iterator.next())\n        if (maxValue < v) {\n            maxValue = v\n        }\n    }\n    return\n    maxValue\n}\n\n/*\n * Returns the largest value according to the provided [comparator]\n * among all values\n * produced by [selector] function applied to each element in the collection.\n * \n * \n * @throws NoSuchElementException if the collection is empty.\n */\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R>\nIterable<T>.maxOfWith(comparator: Comparator<in R>, selector: (T) -> R): R {\n    val iterator = iterator()\n    if\n    (!iterator.hasNext()) throw NoSuchElementException()\n    var maxValue = selector(iterator.next())\n    while

```

```

(iterator.hasNext()) {\n    val v = selector(iterator.next())\n    if (comparator.compare(maxValue, v) < 0) {\n        maxValue = v\n    }\n}\n return maxValue\n}\n\n/**\n * Returns the largest value according to the provided\n [comparator]\n * among all values produced by [selector] function applied to each element in the collection or `null`\n if there are no elements.\n\n*/\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic\n\ninline fun <T, R> Iterable<T>.maxOfWithOrNull(comparator: Comparator<in R>, selector: (T) -> R): R? {\n    val\n iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var maxValue = selector(iterator.next())\n    while\n (iterator.hasNext()) {\n        val v = selector(iterator.next())\n        if (comparator.compare(maxValue, v) < 0) {\n            maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest element or `null` if there are no\n elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n\n@SinceKotlin("1.4")\npublic fun\n\nIterable<Double>.maxOrNull(): Double? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var\n max = iterator.next()\n    while (iterator.hasNext()) {\n        val e = iterator.next()\n        max = maxOf(max, e)\n    }\n    return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n * \n * If any of\n elements is\n `NaN` returns `NaN`.\n */\n\n@SinceKotlin("1.4")\npublic fun\n\nIterable<Float>.maxOrNull(): Float? {\n    val\n iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var max = iterator.next()\n    while (iterator.hasNext())\n {\n        val e = iterator.next()\n        max = maxOf(max, e)\n    }\n    return max\n}\n\n/**\n * Returns the largest\n element or `null` if there are no elements.\n */\n\n@SinceKotlin("1.4")\npublic fun <T : Comparable<T>>\n\nIterable<T>.maxOrNull(): T? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var max =\n iterator.next()\n    while (iterator.hasNext()) {\n        val e = iterator.next()\n        if (max < e) max = e\n    }\n    return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided\n [comparator].\n * \n * @throws NoSuchElementException if the collection is empty.\n\n*/\n\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxWithOrThrow")\n@Suppress("CONFLICTING_OVER\nLOADS")\npublic\n\nfun <T> Iterable<T>.maxWith(comparator: Comparator<in T>): T {\n    val iterator = iterator()\n    if\n (!iterator.hasNext()) throw NoSuchElementException()\n    var max = iterator.next()\n    while (iterator.hasNext())\n {\n        val e = iterator.next()\n        if (comparator.compare(max, e) < 0) max = e\n    }\n    return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no\n elements.\n */\n\n@SinceKotlin("1.4")\npublic fun <T> Iterable<T>.maxWithOrNull(comparator: Comparator<in\n T>): T? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var max = iterator.next()\n    while\n (iterator.hasNext()) {\n        val e = iterator.next()\n        if (comparator.compare(max, e) < 0) max = e\n    }\n    return max\n}\n\n/**\n * Returns the smallest element.\n * \n * If any of elements is `NaN` returns `NaN`.\n * \n * \n * @throws NoSuchElementException if the collection is empty.\n\n*/\n\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minOrThrow")\n@Suppress("CONFLICTING_OVERLOA\nDS")\npublic\n\nfun\n\nIterable<Double>.min(): Double {\n    val iterator = iterator()\n    if (!iterator.hasNext()) throw\n NoSuchElementException()\n    var min = iterator.next()\n    while (iterator.hasNext()) {\n        val e =\n iterator.next()\n        min = minOf(min, e)\n    }\n    return min\n}\n\n/**\n * Returns the smallest element.\n * \n * \n * If\n any of elements is `NaN` returns `NaN`.\n * \n * \n * @throws NoSuchElementException if the collection is empty.\n\n*/\n\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minOrThrow")\n@Suppress("CONFLICTING_OVERLOA\nDS")\npublic fun\n\nIterable<Float>.min(): Float {\n    val iterator = iterator()\n    if (!iterator.hasNext()) throw\n NoSuchElementException()\n    var min = iterator.next()\n    while (iterator.hasNext()) {\n        val e =\n iterator.next()\n        min = minOf(min, e)\n    }\n    return min\n}\n\n/**\n * Returns the smallest element.\n * \n * \n * \n * @throws NoSuchElementException\n if the collection is empty.\n\n*/\n\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minOrThrow")\n@Suppress("CONFLICTING_OVERLOA\nDS")\npublic fun <T : Comparable<T>> Iterable<T>.min(): T {\n    val iterator = iterator()\n    if

```

```

(iterator.hasNext()) throw NoSuchElementException()\n    var min = iterator.next()\n    while (iterator.hasNext())\n    {\n        val e = iterator.next()\n        if (min > e) min = e\n    }\n    return min\n}\n\n/**\n * Returns the first element\n * yielding the smallest value of the given function.\n * \n * @throws NoSuchElementException if the collection is\n * empty.\n * \n * @sample samples.collections.Collections.Aggregates.minBy\n */\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minByOrThrow")\n@Suppress("CONFLICTING_OVERLOADS")\npublic inline fun <T, R : Comparable<R>> Iterable<T>.minBy(selector: (T) -> R): T {\n    val iterator =\n    iterator()\n    if (!iterator.hasNext()) throw NoSuchElementException()\n    var minElem = iterator.next()\n    if\n    (!iterator.hasNext())\n    return minElem\n    var minValue = selector(minElem)\n    do {\n        val e = iterator.next()\n        val v =\n        selector(e)\n        if (minValue > v) {\n            minElem = e\n            minValue = v\n        }\n    } while\n    (iterator.hasNext())\n    return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the\n * given function or `null` if there are no elements.\n * \n * @sample\n * samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin("1.4")\npublic inline fun <T, R : Comparable<R>> Iterable<T>.minByOrNull(selector: (T) -> R): T? {\n    val iterator = iterator()\n    if\n    (!iterator.hasNext()) return null\n    var minElem = iterator.next()\n    if (!iterator.hasNext()) return minElem\n    var\n    minValue = selector(minElem)\n    do {\n        val e = iterator.next()\n        val v = selector(e)\n        if (minValue >\n        v) {\n            minElem = e\n            minValue = v\n        }\n    } while (iterator.hasNext())\n    return\n    minElem\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to\n * each element in the collection.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result\n * is `NaN`.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.minOf(selector: (T) ->\n    Double): Double {\n    val iterator = iterator()\n    if (!iterator.hasNext()) throw NoSuchElementException()\n    var\n    minValue = selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v = selector(iterator.next())\n        minValue =\n        minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all\n * values produced by [selector] function\n * applied to each element in the collection.\n * \n * If any of values\n * produced\n * by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the\n * collection is empty.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.minOf(selector: (T) ->\n    Float): Float {\n    val iterator = iterator()\n    if (!iterator.hasNext()) throw NoSuchElementException()\n    var\n    minValue = selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v = selector(iterator.next())\n        minValue =\n        minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all\n * values produced by [selector] function\n * applied to each element in the collection.\n * \n * @throws\n * NoSuchElementException if the collection is empty.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic\n    inline fun <T, R : Comparable<R>> Iterable<T>.minOf(selector: (T) -> R): R {\n    val iterator = iterator()\n    if\n    (!iterator.hasNext()) throw NoSuchElementException()\n    var minValue = selector(iterator.next())\n    while\n    (iterator.hasNext()) {\n        val v = selector(iterator.next())\n        if (minValue > v) {\n            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector]\n * function\n * applied to each element in the collection or `null` if there are no elements.\n * \n * If any of values\n * produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.minOfOrNull(selector: (T)\n    -> Double): Double? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var minValue

```



```

= selector(iterator.next())\n while (iterator.hasNext()) {\n     val v = selector(iterator.next())\n     minValue =
minOf(minValue, v)\n } return minValue\n}\n\n/**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the collection or `null` if there are no elements.\n * \n * If any
of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.minOrNull(selector: (T)
-> Float): Float? {\n     val iterator = iterator()\n     if (!iterator.hasNext()) return null\n     var minValue =
selector(iterator.next())\n     while (iterator.hasNext()) {\n         val v = selector(iterator.next())\n         minValue =
minOf(minValue, v)\n     } return minValue\n}\n\n/**\n * Returns the smallest value among all
values produced by [selector] function\n * applied to each element in the collection or `null` if there are no
elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>>
Iterable<T>.minOrNull(selector: (T) -> R): R? {\n     val iterator = iterator()\n     if (!iterator.hasNext()) return
null\n     var minValue = selector(iterator.next())\n     while (iterator.hasNext()) {\n         val v =
selector(iterator.next())\n         if (minValue > v) {\n             minValue = v\n         }\n     } return
minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values
produced by [selector] function applied to each element in the collection.\n * \n * @throws
NoSuchElementException if the collection is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <T, R> Iterable<T>.minOfWith(comparator: Comparator<in R>, selector: (T) -> R): R {\n     val iterator
= iterator()\n     if (!iterator.hasNext()) throw NoSuchElementException()\n     var minValue =
selector(iterator.next())\n     while (iterator.hasNext()) {\n         val v = selector(iterator.next())\n         if
(comparator.compare(minValue, v) > 0) {\n             minValue = v\n         }\n     } return minValue\n}\n\n/**\n *
Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the collection or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R>
Iterable<T>.minOfWithOrNull(comparator: Comparator<in R>, selector: (T) -> R): R? {\n     val iterator =
iterator()\n
     if (!iterator.hasNext()) return null\n     var minValue = selector(iterator.next())\n     while (iterator.hasNext()) {\n
val v = selector(iterator.next())\n         if (comparator.compare(minValue, v) > 0) {\n             minValue = v\n
        }\n     } return minValue\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any
of elements is `NaN` returns `NaN`.\n * \n@SinceKotlin("1.4")\npublic fun Iterable<Double>.minOrNull():
Double? {\n     val iterator = iterator()\n     if (!iterator.hasNext()) return null\n     var min = iterator.next()\n     while
(iterator.hasNext()) {\n         val e = iterator.next()\n         min = minOf(min, e)\n     } return min\n}\n\n/**\n *
Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n
*\n@SinceKotlin("1.4")\npublic fun Iterable<Float>.minOrNull(): Float? {\n     val iterator = iterator()\n     if
(!iterator.hasNext()) return
null\n     var min = iterator.next()\n     while (iterator.hasNext()) {\n         val e = iterator.next()\n         min =
minOf(min, e)\n     } return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\npublic fun <T : Comparable<T>> Iterable<T>.minOrNull(): T? {\n     val iterator =
iterator()\n     if (!iterator.hasNext()) return null\n     var min = iterator.next()\n     while (iterator.hasNext()) {\n
val e = iterator.next()\n         if (min > e) min = e\n     } return min\n}\n\n/**\n * Returns the first element having
the smallest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the
collection is empty.\n
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minWithOrThrow")\n@Suppress("CONFLICTING_OVER

```



\* Accumulates value starting with the first element and applying [operation] from left to right\n \* to current accumulator value and each element.\n \* \n \* Returns `null` if the collection is empty.\n \* \n \* @param [operation] function that takes current accumulator value and an element,\n \* and calculates the next accumulator value.\n \* \n \* @sample samples.collections.Collections.Aggregates.reduceOrNull\n

```
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <S, T : S>
```

```
Iterable<T>.reduceOrNull(operation: (acc: S, T) -> S): S? {\n    val iterator = this.iterator()\n    if (!iterator.hasNext()) return null\n    var accumulator: S = iterator.next()\n    while (iterator.hasNext()) {\n        accumulator = operation(accumulator, iterator.next())\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n
```

\* Throws an exception if this list is empty. If the list can be empty in an expected way,\n \* please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty.\n \* \n \* @param [operation] function that takes an element and current accumulator value,\n \* and calculates the next accumulator value.\n \* \n \* @sample samples.collections.Collections.Aggregates.reduceRight\n \*\npublic inline fun <S, T : S>

```
List<T>.reduceRight(operation: (T, acc: S) -> S): S {\n    val iterator = listIterator(size)\n    if (!iterator.hasPrevious())\n        throw UnsupportedOperationException("Empty list can't be reduced.")\n    var accumulator: S = iterator.previous()\n    while (iterator.hasPrevious()) {\n        accumulator = operation(iterator.previous(), accumulator)\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element with its index in the original list and current accumulator
```

value.\n \* \n \* Throws an exception if this list is empty. If the list can be empty in an expected way,\n \* please use [reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.\n \* \n \* @param [operation]

```
function that takes the index of an element, the element itself and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n *\npublic inline fun <S, T : S> List<T>.reduceRightIndexed(operation: (index: Int, T, acc: S) -> S): S {\n    val iterator = listIterator(size)\n    if (!iterator.hasPrevious())\n        throw UnsupportedOperationException("Empty list can't be reduced.")\n    var accumulator: S = iterator.previous()\n    while (iterator.hasPrevious()) {\n        val index = iterator.previousIndex()\n        accumulator = operation(index, iterator.previous(), accumulator)\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the last element
```

and applying [operation] from right to left\n \* to each element with its index in the original list and current accumulator value.\n \* \n \* Returns `null` if the list is empty.\n \* \n \* @param [operation] function that takes the index of an element, the element itself and current accumulator value,\n \* and calculates the next accumulator value.\n \* \n \* @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n

```
*\n@SinceKotlin("1.4")\npublic inline fun <S, T : S> List<T>.reduceRightIndexedOrNull(operation: (index: Int, T, acc: S) -> S): S? {\n    val iterator = listIterator(size)\n    if (!iterator.hasPrevious())\n        return null\n    var accumulator: S = iterator.previous()\n    while (iterator.hasPrevious()) {\n        val index = iterator.previousIndex()\n        accumulator = operation(index, iterator.previous(), accumulator)\n    }\n    return accumulator\n}\n\n/**\n *
```

Accumulates value starting with the last element and applying [operation] from right to left\n

\* to each element and current accumulator value.\n \* \n \* Returns `null` if the list is empty.\n \* \n \* @param [operation] function that takes an element and current accumulator value,\n \* and calculates the next accumulator value.\n \* \n \* @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n

```
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <S, T : S>
```

```
List<T>.reduceRightOrNull(operation: (T, acc: S) -> S): S? {\n    val iterator = listIterator(size)\n    if (!iterator.hasPrevious())\n        return null\n    var accumulator: S = iterator.previous()\n    while (iterator.hasPrevious()) {\n        accumulator = operation(iterator.previous(), accumulator)\n    }\n    return accumulator\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying
```

[operation] from left to right\n \* to each element and current accumulator value that starts with [initial] value.\n \* \n

\* Note that `acc` value passed

to [operation] function should not be mutated;\n \* otherwise it would affect the previous value in resulting list.\n \*  
 \n \* @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n \* \n \* @sample samples.collections.Collections.Aggregates.runningFold\n \*  
 \*\n@SinceKotlin("1.4")\npublic inline fun <T, R> Iterable<T>.runningFold(initial: R, operation: (acc: R, T) -> R): List<R> {\n val estimatedSize = collectionSizeOrDefault(9)\n if (estimatedSize == 0) return listOf(initial)\n val result = ArrayList<R>(estimatedSize + 1).apply { add(initial) }\n var accumulator = initial\n for (element in this) {\n accumulator = operation(accumulator, element)\n result.add(accumulator)\n }\n return result\n}\n\n/\*\*\n \* Returns a list containing successive accumulation values generated by applying [operation] from left to right\n \* to each element, its index in the original collection and current accumulator value that starts with [initial] value.\n \* \n \* Note that `acc` value passed to [operation] function should not be mutated;\n \* otherwise it would affect the previous value in resulting list.\n \* \n \* @param [operation] function that takes the index of an element, current accumulator value\n \* and the element itself, and calculates the next accumulator value.\n \* \n \* @sample samples.collections.Collections.Aggregates.runningFold\n \*  
 \*\n@SinceKotlin("1.4")\npublic inline fun <T, R> Iterable<T>.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): List<R> {\n val estimatedSize = collectionSizeOrDefault(9)\n if (estimatedSize == 0) return listOf(initial)\n val result = ArrayList<R>(estimatedSize + 1).apply { add(initial) }\n var index = 0\n var accumulator = initial\n for (element in this) {\n accumulator = operation(index++, accumulator, element)\n result.add(accumulator)\n }\n return result\n}\n\n/\*\*\n \* Returns a list containing successive accumulation values generated by applying [operation] from left to right\n \* to each element and current accumulator value that starts with the first element of this collection.\n \* \n \* Note that `acc` value passed to [operation] function should not be mutated;\n \* otherwise it would affect the previous value in resulting list.\n \* \n \* @param [operation] function that takes current accumulator value and the element, and calculates the next accumulator value.\n \* \n \* @sample samples.collections.Collections.Aggregates.runningReduce\n \*  
 \*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <S, T : S> Iterable<T>.runningReduce(operation: (acc: S, T) -> S): List<S> {\n val iterator = this.iterator()\n if (!iterator.hasNext()) return emptyList()\n var accumulator: S = iterator.next()\n val result = ArrayList<S>(collectionSizeOrDefault(10)).apply { add(accumulator) }\n while (iterator.hasNext()) {\n accumulator = operation(accumulator, iterator.next())\n result.add(accumulator)\n }\n return result\n}\n\n/\*\*\n \* Returns a list containing successive accumulation values generated by applying [operation] from left to right\n \* to each element, its index in the original collection and current accumulator value that starts with the first element of this collection.\n \* \n \* Note that `acc` value passed to [operation] function should not be mutated;\n \* otherwise it would affect the previous value in resulting list.\n \* \n \* @param [operation] function that takes the index of an element, current accumulator value\n \* and the element itself, and calculates the next accumulator value.\n \* \n \* @sample samples.collections.Collections.Aggregates.runningReduce\n \*  
 \*\n@SinceKotlin("1.4")\npublic inline fun <S, T : S> Iterable<T>.runningReduceIndexed(operation: (index: Int, acc: S, T) -> S): List<S> {\n val iterator = this.iterator()\n if (!iterator.hasNext()) return emptyList()\n var accumulator: S = iterator.next()\n val result = ArrayList<S>(collectionSizeOrDefault(10)).apply { add(accumulator) }\n var index = 1\n while (iterator.hasNext()) {\n accumulator = operation(index++, accumulator, iterator.next())\n result.add(accumulator)\n }\n return result\n}\n\n/\*\*\n \* Returns a list containing successive accumulation values generated by applying [operation] from left to right\n \* to each element and current accumulator value that starts with [initial] value.\n \* \n \* Note that `acc` value passed to [operation] function should not be mutated;\n \* otherwise it would affect the previous value in resulting list.\n \* \n \* @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n \* \n \* @sample samples.collections.Collections.Aggregates.scan\n \*  
 \*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <T, R> Iterable<T>.scan(initial: R, operation:

(acc: R, T) -> R): List<R> {\n return runningFold(initial, operation)\n}\n\n/\*\*\n \* Returns a list containing successive accumulation values generated by applying [operation] from left to right\n \* to each element, its index in the original collection and current accumulator value that starts with [initial] value.\n \* \n \* Note that `acc` value passed to [operation] function should not be mutated;\n \* otherwise it would affect the previous value in resulting list.\n \* \n \* @param [operation] function that takes the index of an element, current accumulator value\n \* and the element itself, and calculates the next accumulator value.\n \* \n \* @sample

samples.collections.Collections.Aggregates.scan\n

```
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <T, R>
```

```
Iterable<T>.scanIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): List<R> {\n return\n runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns the sum of all values
```

```
produced by [selector] function applied to each element in the collection.\n *\n@Deprecated("Use sumOf\n instead.", ReplaceWith("this.sumOf(selector)"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline\n fun <T> Iterable<T>.sumBy(selector: (T) -> Int): Int {\n var sum: Int = 0\n for (element in this) {\n sum +=\n selector(element)\n }\n return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function\n applied to each element in the collection.\n *\n@Deprecated("Use sumOf instead.",
```

```
ReplaceWith("this.sumOf(selector)"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline fun <T>\n Iterable<T>.sumByDouble(selector: (T) -> Double): Double {\n var sum: Double = 0.0\n for (element in this)\n {\n sum += selector(element)\n }\n return sum\n}\n\n/**\n * Returns the sum of all values produced by\n [selector] function applied to each element in the collection.\n\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\n ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfDouble")\n@kotlin.internal.InlineOnly\npublic\n inline fun <T> Iterable<T>.sumOf(selector: (T) -> Double): Double {\n var sum: Double = 0.toDouble()\n for\n (element in this) {\n sum += selector(element)\n }\n return sum\n}\n\n/**\n * Returns the sum of all values\n produced by [selector] function applied to each element in the collection.\n\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\n ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfInt")\n@kotlin.internal.InlineOnly\npublic inline fun <T>\n Iterable<T>.sumOf(selector: (T) -> Int): Int {\n var sum: Int = 0.toInt()\n for (element in this) {\n sum +=\n selector(element)\n }\n return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function\n applied to each element in the collection.\n\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\n ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfLong")\n@kotlin.internal.InlineOnly\npublic\n inline fun <T> Iterable<T>.sumOf(selector: (T) -> Long): Long {\n var sum: Long = 0.toLong()\n for (element\n in this) {\n sum += selector(element)\n }\n return sum\n}\n\n/**\n * Returns the sum of all values produced\n by [selector] function applied to each element in the collection.\n\n
```

```
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\n ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfUInt")\n@WasExperimental(ExperimentalUnsignedType\n s::class)\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.sumOf(selector: (T) -> UInt): UInt {\n\n var sum: UInt = 0.toUInt()\n for (element in this) {\n sum += selector(element)\n }\n return\n sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the\n collection.\n\n
```

```
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\n ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfULong")\n@WasExperimental(ExperimentalUnsignedType\n pes::class)\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.sumOf(selector: (T) -> ULong): ULong\n {\n var sum: ULong = 0.toULong()\n for (element in this) {\n sum += selector(element)\n }\n return\n sum\n}\n\n/**\n * Returns an original collection containing all the non-`null` elements, throwing an\n [IllegalArgumentException] if there are any `null` elements.\n *\npublic fun <T : Any>
```

```
Iterable<T?>.requireNonNulls(): Iterable<T> {\n for (element in this) {\n if (element == null) {\n throw\n IllegalArgumentException("null element found in $this.")\n }\n }\n }
```

```

@Suppress("UNCHECKED_CAST")\n    return this as Iterable<T>\n}\n\n/**\n * Returns an original collection
containing all the non-`null` elements, throwing
an [IllegalArgumentException] if there are any `null` elements.\n */\npublic fun <T : Any>
List<T?>.requireNoNulls(): List<T> {\n    for (element in this) {\n        if (element == null) {\n            throw
IllegalArgumentException("null element found in $this.")\n        }\n    }\n}\n\n@Suppress("UNCHECKED_CAST")\n    return this as List<T>\n}\n\n/**\n * Splits this collection into a list of
lists each not exceeding the given [size].\n * \n * The last list in the resulting list may have fewer elements than the
given [size].\n * \n * @param size the number of elements to take in each list, must be positive and can be greater
than the number of elements in this collection.\n * \n * @sample
samples.collections.Collections.Transformations.chunked\n */\n@SinceKotlin("1.2")\npublic fun <T>
Iterable<T>.chunked(size: Int): List<List<T>> {\n    return windowed(size, size, partialWindows = true)\n}\n\n/**\n * Splits this collection into several lists each not exceeding the given [size]\n
* and applies the given [transform] function to an each.\n * \n * @return list of results of the [transform] applied to
an each list.\n * \n * Note that the list passed to the [transform] function is ephemeral and is valid only inside that
function.\n * \n * You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n * \n * The
last list may have fewer elements than the given [size].\n * \n * @param size the number of elements to take in each
list, must be positive and can be greater than the number of elements in this collection.\n * \n * @sample
samples.text.Strings.chunkedTransform\n */\n@SinceKotlin("1.2")\npublic fun <T, R> Iterable<T>.chunked(size:
Int, transform: (List<T>) -> R): List<R> {\n    return windowed(size, size, partialWindows = true, transform =
transform)\n}\n\n/**\n * Returns a list containing all elements of the original collection without the first occurrence
of the given [element].\n */\npublic operator fun <T> Iterable<T>.minus(element:
T): List<T> {\n    val result = ArrayList<T>(collectionSizeOrDefault(10))\n    var removed = false\n    return
this.filterTo(result) { if (!removed && it == element) { removed = true; false } else true }\n}\n\n/**\n * Returns a
list containing all elements of the original collection except the elements contained in the given [elements] array.\n
*/\npublic operator fun <T> Iterable<T>.minus(elements: Array<out T>): List<T> {\n    if (elements.isEmpty())
return this.toList()\n    return this.filterNot { it in elements }\n}\n\n/**\n * Returns a list containing all elements of
the original collection except the elements contained in the given [elements] collection.\n */\npublic operator fun
<T> Iterable<T>.minus(elements: Iterable<T>): List<T> {\n    val other =
elements.convertToListIfNotCollection()\n    if (other.isEmpty())\n        return this.toList()\n    return this.filterNot {
it in other }\n}\n\n/**\n * Returns a list containing all elements of the original collection except
the elements contained in the given [elements] sequence.\n */\npublic operator fun <T>
Iterable<T>.minus(elements: Sequence<T>): List<T> {\n    val other = elements.toList()\n    if (other.isEmpty())\n
return this.toList()\n    return this.filterNot { it in other }\n}\n\n/**\n * Returns a list containing all elements of the
original collection without the first occurrence of the given [element].\n */\n@kotlin.internal.InlineOnly\npublic
inline fun <T> Iterable<T>.minusElement(element: T): List<T> {\n    return minus(element)\n}\n\n/**\n * Splits the
original collection into pair of lists,\n * where *first* list contains elements for which [predicate] yielded `true`,\n *
while *second* list contains elements for which [predicate] yielded `false`.\n * \n * @sample
samples.collections.Iterables.Operations.partition\n */\npublic inline fun <T> Iterable<T>.partition(predicate: (T) ->
Boolean): Pair<List<T>, List<T>> {\n    val first = ArrayList<T>()\n    val second = ArrayList<T>()\n
    for (element in this) {\n        if (predicate(element)) {\n            first.add(element)\n        } else {\n
            second.add(element)\n        }\n    }\n    return Pair(first, second)\n}\n\n/**\n * Returns a list containing all elements
of the original collection and then the given [element].\n */\npublic operator fun <T> Iterable<T>.plus(element: T):
List<T> {\n    if (this is Collection) return this.plus(element)\n    val result = ArrayList<T>()\n    result.addAll(this)\n    result.add(element)\n    return result\n}\n\n/**\n * Returns a list containing all elements of the
original collection and then the given [element].\n */\npublic operator fun <T> Collection<T>.plus(element: T):
List<T> {\n    val result = ArrayList<T>(size + 1)\n    result.addAll(this)\n    result.add(element)\n    return
result\n}\n\n/**\n * Returns a list containing all elements of the original collection and then all elements of the given
[elements] array.\n */\npublic operator fun <T> Iterable<T>.plus(elements:

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Array<out T>): List<T> {\n  if (this is Collection) return this.plus(elements)\n  val result = ArrayList<T>()\n  result.addAll(this)\n  result.addAll(elements)\n  return result}\n\n/**\n * Returns a list containing all elements\n of the original collection and then all elements of the given [elements] array.\n */\npublic operator fun <T>\nCollection<T>.plus(elements: Array<out T>): List<T> {\n  val result = ArrayList<T>(this.size + elements.size)\n  result.addAll(this)\n  result.addAll(elements)\n  return result}\n\n/**\n * Returns a list containing all elements\n of the original collection and then all elements of the given [elements] collection.\n */\npublic operator fun <T>\nIterable<T>.plus(elements: Iterable<T>): List<T> {\n  if (this is Collection) return this.plus(elements)\n  val\n  result = ArrayList<T>()\n  result.addAll(this)\n  result.addAll(elements)\n  return result}\n\n/**\n * Returns a\n list containing all elements of the original\n collection and then all elements of the given [elements] collection.\n */\npublic operator fun <T>\nCollection<T>.plus(elements: Iterable<T>): List<T> {\n  if (elements is Collection) {\n    val result =\n    ArrayList<T>(this.size + elements.size)\n    result.addAll(this)\n    result.addAll(elements)\n    return result\n  }\n  else {\n    val result = ArrayList<T>(this)\n    result.addAll(elements)\n    return result\n  }\n}\n\n/**\n * Returns a list containing all elements of the original collection and then all elements of the given [elements]\n sequence.\n */\npublic operator fun <T> Iterable<T>.plus(elements: Sequence<T>): List<T> {\n  val result =\n  ArrayList<T>()\n  result.addAll(this)\n  result.addAll(elements)\n  return result}\n\n/**\n * Returns a list\n containing all elements of the original collection and then all elements of the given [elements] sequence.\n */\npublic operator fun <T> Collection<T>.plus(elements: Sequence<T>): List<T> {\n\n  val result = ArrayList<T>(this.size + 10)\n  result.addAll(this)\n  result.addAll(elements)\n  return\n  result}\n\n/**\n * Returns a list containing all elements of the original collection and then the given [element].\n */\n\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.plusElement(element: T): List<T> {\n  return\n  plus(element)\n}\n\n/**\n * Returns a list containing all elements of the original collection and then the given\n [element].\n */\n\n@kotlin.internal.InlineOnly\npublic inline fun <T> Collection<T>.plusElement(element: T):\nList<T> {\n  return plus(element)\n}\n\n/**\n * Returns a list of snapshots of the window of the given [size]\n * sliding along this collection with the given [step], where each\n * snapshot is a list.\n * Several last lists may\n * have fewer elements than the given [size].\n * Both [size] and [step] must be positive and can be greater than\n the number of elements in this collection.\n * @param size the number of elements to take\n in each window\n * @param step the number of elements to move the window forward by on an each step, by\n default 1\n * @param partialWindows controls whether or not to keep partial windows in the end if any,\n * by\n default `false` which means partial windows won't be preserved\n * @sample\n samples.collections.Sequences.Transformations.takeWindows\n */\n\n@SinceKotlin("1.2")\npublic fun <T>\nIterable<T>.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false): List<List<T>> {\n\n  checkWindowSizeStep(size, step)\n  if (this is RandomAccess && this is List) {\n    val thisSize = this.size\n    val resultCapacity = thisSize / step + if (thisSize % step == 0) 0 else 1\n    val result =\n    ArrayList<List<T>>(resultCapacity)\n    var index = 0\n    while (index in 0 until thisSize) {\n      val\n      windowSize = size.coerceAtMost(thisSize - index)\n      if (windowSize < size && !partialWindows) break\n      result.add(List(windowSize) { this[it\n      + index] })\n      index += step\n    }\n    return result\n  }\n  val result = ArrayList<List<T>>()\n  windowedIterator(iterator(), size, step, partialWindows, reuseBuffer = false).forEach {\n    result.add(it)\n  }\n  return result}\n\n/**\n * Returns a list of results of applying the given [transform] function to\n * an each list\n representing a view over the window of the given [size]\n * sliding along this collection with the given [step].\n * Note that the list passed to the [transform] function is ephemeral and is valid only inside that function.\n * You\n should not store it or allow it to escape in some way, unless you made a snapshot of it.\n * Several last lists may\n have fewer elements than the given [size].\n * Both [size] and [step] must be positive and can be greater than\n the number of elements in this collection.\n * @param size the number of elements to take in each window\n * @param step the number of elements to move the window forward\n by on an each step, by default 1\n * @param partialWindows controls whether or not to keep partial windows in the\n end if any,\n * by default `false` which means partial windows won't be preserved\n * @sample

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samples.collections.Sequences.Transformations.averageWindows\n *^@SinceKotlin("1.2")\npublic fun <T, R>
Iterable<T>.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false, transform: (List<T>) -> R):
List<R> {\n    checkWindowSizeStep(size, step)\n    if (this is RandomAccess && this is List) {\n        val thisSize =
this.size\n        val resultCapacity = thisSize / step + if (thisSize % step == 0) 0 else 1\n        val result =
ArrayList<R>(resultCapacity)\n        val window = MovingSubList(this)\n        var index = 0\n        while (index in 0
until thisSize) {\n            val windowSize = size.coerceAtMost(thisSize - index)\n            if (!partialWindows &&
windowSize < size) break\n            window.move(index, index + windowSize)\n            result.add(transform(window))\n            index += step\n        }\n        return result\n    }\n    val result =
ArrayList<R>()\n    windowedIterator(iterator(), size, step, partialWindows, reuseBuffer = true).forEach {\n        result.add(transform(it))\n    }\n    return result\n}\n\n/**\n * Returns a list of pairs built from the elements of `this`
collection and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <T, R> Iterable<T>.zip(other:
Array<out R>): List<Pair<T, R>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values
built from the elements of `this` collection and the [other] array with the same index\n * using the provided
[transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <T, R, V> Iterable<T>.zip(other: Array<out R>, transform: (a: T, b: R) -> V): List<V> {\n
val arraySize = other.size\n    val list = ArrayList<V>(minOf(collectionSizeOrDefault(10), arraySize))\n    var i =
0\n    for (element in this) {\n        if (i >= arraySize) break\n        list.add(transform(element, other[i++]))\n    }\n    return list\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] collection with
the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <T, R> Iterable<T>.zip(other:
Iterable<R>): List<Pair<T, R>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values
built from the elements of `this` collection and the [other] collection with the same index\n * using the provided
[transform] function applied to each pair of elements.\n * \n * The returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <T, R, V>
Iterable<T>.zip(other: Iterable<R>, transform: (a: T, b: R) -> V): List<V> {\n    val first = iterator()\n    val second
= other.iterator()\n    val list = ArrayList<V>(minOf(collectionSizeOrDefault(10),
other.collectionSizeOrDefault(10)))\n    while (first.hasNext() && second.hasNext()) {\n        list.add(transform(first.next(), second.next()))\n    }\n    return list\n}\n\n/**\n * Returns a list of pairs of each two
adjacent elements in this collection.\n * \n * The returned list is empty if this collection contains less than two
elements.\n * \n * @sample samples.collections.Collections.Transformations.zipWithNext\n */\n\n/**\n * @SinceKotlin("1.2")\n */\npublic fun <T> Iterable<T>.zipWithNext(): List<Pair<T, T>> {\n    return zipWithNext
{ a, b -> a to b }\n}\n\n/**\n * Returns a list containing the results of applying the
given [transform] function\n * to an each pair of two adjacent elements in this collection.\n * \n * The returned list
is empty if this collection contains less than two elements.\n * \n * @sample
samples.collections.Collections.Transformations.zipWithNextToFindDeltas\n */\n\n/**\n * @SinceKotlin("1.2")\n */\npublic
inline fun <T, R> Iterable<T>.zipWithNext(transform: (a: T, b: T) -> R): List<R> {\n    val iterator = iterator()\n    if
(!iterator.hasNext()) return emptyList()\n    val result = mutableListOf<R>()\n    var current = iterator.next()\n    while (iterator.hasNext()) {\n        val next = iterator.next()\n        result.add(transform(current, next))\n        current
= next\n    }\n    return result\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and
using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-
negative value of [limit], in which case only the first [limit]\n * elements will be appended,
followed by the [truncated] string (which defaults to "...").\n * \n * @sample
samples.collections.Collections.Transformations.joinTo\n */\n\n/**\n * @public fun <T, A : Appendable>
Iterable<T>.joinTo(buffer: A, separator: CharSequence = '\n', prefix: CharSequence = "\n", postfix: CharSequence
= "\n", limit: Int = -1, truncated: CharSequence = "...", transform: ((T) -> CharSequence)? = null): A {\n

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buffer.append(prefix)\n    var count = 0\n    for (element in this) {\n        if (++count > 1) buffer.append(separator)\n        if (limit < 0 || count <= limit) {\n            buffer.appendElement(element, transform)\n        } else break\n    }\n    if (limit >= 0 && count > limit) buffer.append(truncated)\n    buffer.append(postfix)\n    return buffer\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if\n * supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which\n * case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to\n * "...").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun <T>\nIterable<T>.joinToString(separator: CharSequence = "|", prefix: CharSequence = "", postfix: CharSequence =\n"", limit: Int = -1, truncated: CharSequence = "...", transform: ((T) -> CharSequence)? = null): String {\n    return\n    joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Returns this\n * collection as an [Iterable].\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.asIterable():\nIterable<T> {\n    return this\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original collection returning\n * its elements when being iterated.\n */\n@sample\nsamples.collections.Sequences.Building.sequenceFromCollection\n\n/**\n * \n */\npublic fun <T> Iterable<T>.asSequence():\nSequence<T> {\n    return Sequence\n    {\n        this.iterator()\n    }\n}\n\n/**\n * Returns an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName("averageOfByte")\npublic fun Iterable<Byte>.average(): Double {\n    var sum:\n    Double = 0.0\n    var count: Int = 0\n    for (element in this) {\n        sum += element\n        checkCountOverflow(++count)\n    }\n    return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns\n * an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName("averageOfShort")\npublic fun\nIterable<Short>.average(): Double {\n    var sum: Double = 0.0\n    var count: Int = 0\n    for (element in this) {\n        sum += element\n        checkCountOverflow(++count)\n    }\n    return if (count == 0) Double.NaN else sum /\n    count\n}\n\n/**\n * Returns an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName("averageOfInt")\npublic fun Iterable<Int>.average(): Double {\n    var sum: Double =\n    0.0\n    var count: Int = 0\n    for (element in this) {\n        sum += element\n        checkCountOverflow(++count)\n    }\n    return if (count == 0) Double.NaN else sum /\n    count\n}\n\n/**\n * Returns an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName("averageOfLong")\npublic fun Iterable<Long>.average(): Double {\n    var sum:\n    Double = 0.0\n    var count: Int = 0\n    for (element in this) {\n        sum += element\n        checkCountOverflow(++count)\n    }\n    return if (count == 0) Double.NaN else sum /\n    count\n}\n\n/**\n * Returns an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName("averageOfFloat")\npublic fun\nIterable<Float>.average(): Double {\n    var sum: Double = 0.0\n    var count: Int = 0\n    for (element in this) {\n        sum += element\n        checkCountOverflow(++count)\n    }\n    return if (count == 0) Double.NaN else sum /\n    count\n}\n\n/**\n * Returns an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName("averageOfDouble")\npublic fun Iterable<Double>.average():\n    Double {\n    var sum: Double = 0.0\n    var count: Int = 0\n    for (element in this) {\n        sum += element\n        checkCountOverflow(++count)\n    }\n    return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns\n * the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName("sumOfByte")\npublic fun\nIterable<Byte>.sum(): Int {\n    var sum: Int = 0\n    for (element in this) {\n        sum += element\n    }\n    return\n    sum\n}\n\n/**\n * Returns the sum of all elements\n * in the collection.\n */\n@kotlin.jvm.JvmName("sumOfShort")\npublic fun Iterable<Short>.sum(): Int {\n    var sum: Int = 0\n    for\n    (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the\n * collection.\n */\n@kotlin.jvm.JvmName("sumOfInt")\npublic fun Iterable<Int>.sum(): Int {\n    var sum: Int = 0\n    for\n    (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements\n * in the collection.\n */\n@kotlin.jvm.JvmName("sumOfLong")\npublic fun Iterable<Long>.sum(): Long {\n    var\n    sum: Long = 0L\n    for (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the\n * sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName("sumOfFloat")\npublic fun\nIterable<Float>.sum(): Float {\n    var sum: Float = 0.0f\n    for (element in this) {\n        sum += element\n    }\n}

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return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n
*\n@kotlin.jvm.JvmName("sumOfDouble")\npublic fun Iterable<Double>.sum(): Double {\n    var sum: Double
= 0.0\n    for (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n"/**\n * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\nimport
kotlin.comparisons.naturalOrder\n\nimport
kotlin.random.Random\n\nimport kotlin.js.arrayBufferIsView\n\n\n/**\n * Returns the array if it's not `null`, or an
empty array otherwise.\n * @sample samples.collections.Arrays.Usage.arrayOrEmpty\n
*\n@kotlin.internal.InlineOnly\npublic actual inline fun <T> Array<out T>?.orEmpty(): Array<out T> = this ?:
emptyArray<T>()\n\n\n/**\n * Returns a *typed* array containing all of the elements of this collection.\n * \n *
Allocates an array of runtime type `T` having its size equal to the size of this collection\n * and populates the array
with the elements of this collection.\n * @sample
samples.collections.Collections.Collections.collectionToTypedArray\n
*\n@kotlin.internal.InlineOnly\npublic
actual inline fun <T> Collection<T>.toArray(): Array<T> =
copyToArray(this)\n\n@JsName("copyToArray")\n@PublishedApi\ninternal fun <T> copyToArray(collection:
Collection<T>): Array<T> {\n    return if (collection.asDynamic().toArray !== undefined)\n        collection.asDynamic().toArray().unsafeCast<Array<T>>()\n
    else\n        copyToArrayImpl(collection).unsafeCast<Array<T>>()\n}\n\n@JsName("copyToArrayImpl")\ninternal actual fun
copyToArrayImpl(collection: Collection<*>): Array<Any?> {\n    val array = emptyArray<Any?>()\n    val iterator
= collection.iterator()\n    while (iterator.hasNext())\n        array.asDynamic().push(iterator.next())\n    return
array\n}\n\n@JsName("copyToExistingArrayImpl")\ninternal actual fun <T> copyToArrayImpl(collection:
Collection<*>, array: Array<T>): Array<T> {\n    if (array.size < collection.size)\n        return
copyToArrayImpl(collection).unsafeCast<Array<T>>()\n    val iterator = collection.iterator()\n    var index = 0\n
while (iterator.hasNext()) {\n        array[index++] = iterator.next().unsafeCast<T>()\n    }\n    if (index < array.size)
{\n        array[index] = null.unsafeCast<T>()\n    }\n    return array\n}\n\n\n/**\n * Returns an immutable list
containing only the specified object [element].\n */\npublic
fun <T> listOf(element: T): List<T> =
arrayListOf(element)\n\n@PublishedApi\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\ninternal actual
inline fun <E> buildListInternal(builderAction: MutableList<E>.() -> Unit): List<E> {\n    return
ArrayList<E>().apply(builderAction).build()\n}\n\n@PublishedApi\n@SinceKotlin("1.3")\n@kotlin.internal.Inlin
eOnly\ninternal actual inline fun <E> buildListInternal(capacity: Int, builderAction: MutableList<E>.() -> Unit):
List<E> {\n    checkBuilderCapacity(capacity)\n    return
ArrayList<E>(capacity).apply(builderAction).build()\n}\n\n\n/**\n * Returns an immutable set containing only the
specified object [element].\n */\npublic fun <T> setOf(element: T): Set<T> =
hashSetOf(element)\n\n@PublishedApi\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\ninternal actual inline
fun <E> buildSetInternal(builderAction: MutableSet<E>.() -> Unit): Set<E> {\n    return
LinkedHashSet<E>().apply(builderAction).build()\n}\n\n@PublishedApi\n@SinceKotlin("1.3")\n@kotlin.internal.
InlineOnly\ninternal
actual inline fun <E> buildSetInternal(capacity: Int, builderAction: MutableSet<E>.() -> Unit): Set<E> {\n    return
LinkedHashSet<E>(capacity).apply(builderAction).build()\n}\n\n\n/**\n * Returns an immutable map, mapping
only the specified key to the\n * specified value.\n */\npublic fun <K, V> mapOf(pair: Pair<K, V>): Map<K, V> =
hashMapOf(pair)\n\n@PublishedApi\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\ninternal actual inline
fun <K, V> buildMapInternal(builderAction: MutableMap<K, V>.() -> Unit): Map<K, V> {\n    return
LinkedHashMap<K,
V>().apply(builderAction).build()\n}\n\n@PublishedApi\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\ninte
rnal actual inline fun <K, V> buildMapInternal(capacity: Int, builderAction: MutableMap<K, V>.() -> Unit):
Map<K, V> {\n    return LinkedHashMap<K, V>(capacity).apply(builderAction).build()\n}\n\n\n/**\n * Fills the

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list with the provided [value].\n *\n * Each element in the list gets
replaced with the [value].\n *\n @SinceKotlin("1.2")\npublic actual fun <T> MutableList<T>.fill(value: T): Unit
{\n for (index in 0..lastIndex) {\n this[index] = value\n }\n}\n\n**\n * Randomly shuffles elements in this
list.\n *\n * See: https://en.wikipedia.org/wiki/Fisher%20%80%93Yates_shuffle#The_modern_algorithm\n
*\n @SinceKotlin("1.2")\npublic actual fun <T> MutableList<T>.shuffle(): Unit = shuffle(Random)\n\n**\n *
Returns a new list with the elements of this list randomly shuffled.\n *\n @SinceKotlin("1.2")\npublic actual fun
<T> Iterable<T>.shuffled(): List<T> = toMutableList().apply { shuffle() }\n\n**\n * Sorts elements in the list in-
place according to their natural sort order.\n *\n * The sort is _stable_. It means that equal elements preserve their
order relative to each other after sorting.\n *\n * @sample samples.collections.Collections.Sorting.sortMutableList\n
*\npublic actual fun <T : Comparable<T>> MutableList<T>.sort(): Unit {\n collectionsSort(this,
naturalOrder())\n}\n\n**\n * Sorts elements in the list in-place according to the order specified with
[comparator].\n *\n * The sort is _stable_. It means that equal elements preserve their order relative to each other
after sorting.\n *\n * @sample samples.collections.Collections.Sorting.sortMutableListWith\n
*\npublic actual fun
<T> MutableList<T>.sortWith(comparator: Comparator<in T>): Unit {\n collectionsSort(this,
comparator)\n}\n\nprivate fun <T> collectionsSort(list: MutableList<T>, comparator: Comparator<in T>) {\n if
(list.size <= 1) return\n\n val array = copyToArray(list)\n sortArrayWith(array, comparator)\n\n for (i in 0 until
array.size) {\n list[i] = array[i]\n }\n}\n\ninternal actual fun <T> arrayOfNulls(reference: Array<T>, size: Int):
Array<T> {\n return
arrayOfNulls<Any>(size).unsafeCast<Array<T>>()\n}\n\n @SinceKotlin("1.3")\n @PublishedApi\n @JsName("arrayCopy")\ninternal fun <T> arrayCopy(source: Array<out T>, destination:
Array<in T>, destinationOffset: Int, startIndex: Int, endIndex: Int) {\n
AbstractList.checkRangeIndexes(startIndex, endIndex, source.size)\n val rangeSize = endIndex - startIndex\n
AbstractList.checkRangeIndexes(destinationOffset, destinationOffset + rangeSize, destination.size)\n\n if
(arrayBufferIsView(destination) && arrayBufferIsView(source)) {\n val subrange =
source.asDynamic().subarray(startIndex, endIndex)\n destination.asDynamic().set(subrange,
destinationOffset)\n } else {\n if (source !== destination || destinationOffset <= startIndex) {\n for
(index in 0 until rangeSize) {\n destination[destinationOffset + index] = source[startIndex + index]\n
}\n } else {\n for (index in rangeSize - 1 downTo 0) {\n destination[destinationOffset + index] =
source[startIndex + index]\n }\n }\n}\n\n// no singleton map implementation in js, return map as
is\n @Suppress("NOTHING_TO_INLINE")\ninternal
actual inline fun <K, V> Map<K, V>.toSingletonMapOrSelf(): Map<K, V> =
this\n\n @Suppress("NOTHING_TO_INLINE")\ninternal actual inline fun <K, V> Map<out K,
V>.toSingletonMap(): Map<K, V> = this.toMutableMap()\n\n @Suppress("NOTHING_TO_INLINE")\ninternal
actual inline fun <T> Array<out T>.copyToArrayOfAny(isVarargs: Boolean): Array<out Any?> =\n if
(isVarargs)\n // no need to copy vararg array in JS\n this\n else\n
this.copyOf()\n\n\n @PublishedApi\ninternal actual fun checkIndexOverflow(index: Int): Int {\n if (index < 0)
{\n throwIndexOverflow()\n }\n return index\n}\n\n @PublishedApi\ninternal actual fun
checkCountOverflow(count: Int): Int {\n if (count < 0) {\n throwCountOverflow()\n }\n return
count\n}\n\n**\n * JS map and set implementations do not make use of capacities or load factors.\n
*\n @PublishedApi\ninternal actual fun mapCapacity(expectedSize: Int) = expectedSize\n\n**\n
* Checks a collection builder function capacity argument.\n * In JS no validation is made in Map/Set constructor
yet.\n *\n @SinceKotlin("1.3")\n @PublishedApi\ninternal fun checkBuilderCapacity(capacity: Int) {\n
require(capacity >= 0) { "capacity must be non-negative." }\n}\n\n"/**\n * Copyright 2010-2018 JetBrains s.r.o. and
Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\n
*\n\n @file:kotlin.jvm.JvmMultifileClass\n @file:kotlin.jvm.JvmName("CollectionsKt")\n\npackage
kotlin.collections\n\n**\n * Returns the given iterator itself. This allows to use an instance of iterator in a `for`
loop.\n * @sample samples.collections.Iterators.iterator\n *\n @kotlin.internal.InlineOnly\npublic inline operator

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fun <T> Iterator<T>.iterator(): Iterator<T> = this\n\n/**\n * Returns an [Iterator] that wraps each element produced
by the original iterator\n * into an [IndexedValue]
containing the index of that element and the element itself.\n * \n * @sample
samples.collections.Iterators.withIndexIterator\n */\npublic fun <T> Iterator<T>.withIndex():
Iterator<IndexedValue<T>> = IndexingIterator(this)\n\n/**\n * Performs the given [operation] on each element of
this [Iterator].\n * @sample samples.collections.Iterators.forEachIterator\n */\npublic inline fun <T>
Iterator<T>.forEach(operation: (T) -> Unit): Unit {\n    for (element in this) operation(element)\n}\n\n/**\n *
Iterator transforming original `iterator` into iterator of [IndexedValue], counting index from zero.\n */\ninternal class
IndexingIterator<out T>(private val iterator: Iterator<T>) : Iterator<IndexedValue<T>> {\n    private var index =
0\n    final override fun hasNext(): Boolean = iterator.hasNext()\n    final override fun next(): IndexedValue<T> =
IndexedValue(checkIndexOverflow(index++), iterator.next())\n}\n\n"/>\n * Copyright 2010-2022 JetBrains s.r.o.
and Kotlin Programming Language contributors.\n
* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("ComparisonsKt")\n\npackage
kotlin.comparisons\n\n/\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\n/\n\nimport kotlin.random.*\n\n/**\n * Returns the
greater of two values.\n * \n * If values are equal, returns the first one.\n */\n@SinceKotlin("1.1")\npublic expect
fun <T : Comparable<T>> maxOf(a: T, b: T): T\n\n/**\n * Returns the greater of two values.\n
*/\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Byte, b: Byte):
Byte\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic
expect inline fun maxOf(a: Short, b: Short): Short\n\n/**\n * Returns the greater of two values.\n
*/\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic
expect inline fun maxOf(a: Int, b: Int): Int\n\n/**\n * Returns the greater of two values.\n
*/\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Long, b: Long):
Long\n\n/**\n * Returns the greater of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n
*/\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Float, b: Float):
Float\n\n/**\n * Returns the greater of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n
*/\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Double, b: Double):
Double\n\n/**\n * Returns the greater of three values.\n * \n * If there are multiple equal maximal values, returns the
first of them.\n */\n@SinceKotlin("1.1")\npublic expect fun <T : Comparable<T>> maxOf(a: T, b: T, c: T):
T\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic
expect inline fun maxOf(a: Byte, b: Byte, c: Byte): Byte\n\n/**\n * Returns the greater of three values.\n
*/\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Short, b: Short, c:
Short): Short\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic
expect inline fun maxOf(a: Int, b: Int, c: Int):
Int\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic
expect inline fun maxOf(a: Long, b: Long, c: Long): Long\n\n/**\n * Returns the greater of three values.\n * \n * If
any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline
fun maxOf(a: Float, b: Float, c: Float): Float\n\n/**\n * Returns the greater of three values.\n * \n * If any value is
`NaN`, returns `NaN`.\n */\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a:
Double, b: Double, c:
Double): Double\n\n/**\n * Returns the greater of three values according to the order specified by the given
[comparator].\n * \n * If there are multiple equal maximal values, returns the first of them.\n
*/\n@SinceKotlin("1.1")\npublic fun <T> maxOf(a: T, b: T, c: T, comparator: Comparator<in T>): T {\n    return
maxOf(a, maxOf(b, c, comparator), comparator)\n}\n\n/**\n * Returns the greater of two values according to the
order specified by the given [comparator].\n * \n * If values are equal, returns the first one.\n
*/\n@SinceKotlin("1.1")\npublic fun <T> maxOf(a: T, b: T, comparator: Comparator<in T>): T {\n    return if
(comparator.compare(a, b) >= 0) a else b\n}\n\n/**\n * Returns the greater of the given values.\n * \n * If there are

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multiple equal maximal values, returns the first of them.

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*^@SinceKotlin("1.4")\npublic expect fun <T : Comparable<T>> maxOf(a: T, vararg other: T): T\n\n/**\n * Returns the greater of the given values.\n *\n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin("1.4")\npublic expect fun maxOf(a: Byte, vararg other: Byte): Byte\n\n/**\n * Returns the greater of the given values.\n *\n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin("1.4")\npublic expect fun maxOf(a: Short, vararg other: Short): Short\n\n/**\n * Returns the greater of the given values.\n *\n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin("1.4")\npublic expect fun maxOf(a: Int, vararg other: Int): Int\n\n/**\n * Returns the greater of the given values.\n *\n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin("1.4")\npublic expect fun maxOf(a: Long, vararg other: Long): Long\n\n/**\n * Returns the greater of the given values according to the order specified by the given [comparator].\n *\n * If there are multiple equal maximal values, returns the first of them.\n */\n@SinceKotlin("1.4")\npublic fun <T> maxOf(a: T, vararg other: T, comparator: Comparator<in T>): T {\n    var max = a\n    for (e in other) if (comparator.compare(max, e) < 0) max = e\n    return max\n}\n\n/**\n * Returns the smaller of two values.\n *\n * If values are equal, returns the first one.\n */\n@SinceKotlin("1.1")\npublic expect fun <T : Comparable<T>> minOf(a: T, b: T): T\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Byte, b: Byte): Byte\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Short, b: Short): Short\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Int, b: Int): Int\n\n/**\n * Returns the smaller of two values.\n *\n * If either value is `NaN`, returns `NaN`.\n */\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Long, b: Long): Long\n\n/**\n * Returns the smaller of two values.\n *\n * If either value is `NaN`, returns `NaN`.\n */\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Float, b: Float): Float\n\n/**\n * Returns the smaller of three values.\n *\n * If there are multiple equal minimal values, returns the first of them.\n */\n@SinceKotlin("1.1")\npublic expect fun <T : Comparable<T>> minOf(a: T, b: T, c: T): T\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Byte, b: Byte, c: Byte): Byte\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Short, b: Short, c: Short): Short\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Int, b: Int, c: Int): Int\n\n/**\n * Returns the smaller of three values.\n *\n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Long, b: Long, c: Long): Long\n\n/**\n * Returns the smaller of three values.\n *\n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Float, b: Float, c: Float): Float\n\n/**\n * Returns the smaller of three values according to the order specified by the given [comparator].\n *\n * If there are multiple equal minimal values, returns the first of them.\n */\n@SinceKotlin("1.1")\npublic fun <T> minOf(a: T, b: T, c: T, comparator: Comparator<in T>): T {\n    return if (comparator.compare(a, b) <= 0) a else b\n}\n\n/**\n * Returns the smaller of the given values.\n *\n * If there are multiple equal minimal values, returns the first of them.\n */

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*\/n@SinceKotlin("1.4")\npublic expect fun <T : Comparable<T>> minOf(a: T, vararg other: T): T\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin("1.4")\npublic expect fun minOf(a: Byte, vararg other: Byte): Byte\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin("1.4")\npublic expect fun minOf(a: Short, vararg other: Short): Short\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin("1.4")\npublic expect fun minOf(a: Int, vararg other: Int): Int\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin("1.4")\npublic expect fun minOf(a: Long, vararg other: Long): Long\n\n/**\n * Returns the smaller of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin("1.4")\npublic expect fun minOf(a: Float, vararg other: Float): Float\n\n/**\n * Returns the smaller of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin("1.4")\npublic expect fun minOf(a: Double, vararg other: Double): Double\n\n/**\n * Returns the smaller of the given values according to the order specified by the given [comparator].\n * \n * If there are multiple equal minimal values, returns the first of them.\n */\n@SinceKotlin("1.4")\npublic fun <T> minOf(a: T, vararg other: T, comparator: Comparator<in T>): T {\n    var min = a\n    for (e in other) if (comparator.compare(min, e) > 0) min = e\n    return min\n}\n\n"/n\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n\n*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("MapsKt")\n\npackage kotlin.collections\n\n/\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\nimport kotlin.random.*\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to entries of this map in iteration order,\n * or throws [NoSuchElementException] if no non-null value was produced.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Any> Map<out K, V>.firstNotNullOf(transform: (Map.Entry<K, V>) -> R?): R {\n    return firstNotNullOfOrNull(transform) ?: throw NoSuchElementException("No element of the map was transformed to a non-null value.")\n}\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to entries of this map in iteration order,\n * or `null` if no non-null value was produced.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Any> Map<out K, V>.firstNotNullOfOrNull(transform: (Map.Entry<K, V>) -> R?): R? {\n    for (element in this) {\n        val result = transform(element)\n        if (result != null) {\n            return result\n        }\n    }\n    return null\n}\n\n/**\n * Returns a [List] containing all key-value pairs.\n */\npublic fun <K, V> Map<out K, V>.toList(): List<Pair<K, V>> {\n    if (size == 0)\n        return emptyList()\n    val iterator = entries.iterator()\n    if (!iterator.hasNext())\n        return emptyList()\n    val first = iterator.next()\n    if (!iterator.hasNext())\n        return listOf(first.toPair())\n    val result = ArrayList<Pair<K, V>>(size)\n    result.add(first.toPair())\n    do {\n        result.add(iterator.next().toPair())\n    } while (iterator.hasNext())\n    return result\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each entry of original map.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <K, V, R> Map<out K, V>.flatMap(transform: (Map.Entry<K, V>) -> Iterable<R>): List<R> {\n    return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each entry of original map.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapSequence")\npublic inline fun <K, V, R> Map<out K, V>.flatMap(transform: (Map.Entry<K, V>) -> Sequence<R>): List<R> {\n    return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Appends all elements yielded from results of

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[transform] function being invoked on each entry of original map, to the given [destination].\n *\npublic inline fun
<K, V, R, C : MutableCollection<in R>> Map<out K, V>.flatMapTo(destination: C, transform: (Map.Entry<K, V>)
-> Iterable<R>): C {\n  for (element in this) {\n    val list = transform(element)\n    destination.addAll(list)\n  }\n  return destination\n}\n\n**\n * Appends all elements yielded from results of [transform] function being
invoked on each entry of original map, to the given [destination].\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapSequenceTo")\npublic
inline fun <K, V, R, C : MutableCollection<in R>> Map<out K, V>.flatMapTo(destination: C, transform:
(Map.Entry<K, V>) -> Sequence<R>): C {\n  for (element in this) {\n    val list = transform(element)\n
destination.addAll(list)\n  }\n  return destination\n}\n\n**\n * Returns a list containing the results of applying the
given [transform] function\n * to each entry in the original map.\n * \n * @sample
samples.collections.Maps.Transformations.mapToList\n *\npublic inline fun <K, V, R> Map<out K,
V>.map(transform: (Map.Entry<K, V>) -> R): List<R> {\n  return mapTo(ArrayList<R>(size),
transform)\n}\n\n**\n * Returns a list containing only the non-null results of applying the given [transform]
function\n * to each entry in the original map.\n * \n * @sample
samples.collections.Maps.Transformations.mapNotNull\n *\npublic inline fun <K, V, R : Any> Map<out K,
V>.mapNotNull(transform:
(Map.Entry<K, V>) -> R?): List<R> {\n  return mapNotNullTo(ArrayList<R>(), transform)\n}\n\n**\n * Applies
the given [transform] function to each entry in the original map\n * and appends only the non-null results to the
given [destination].\n *\npublic inline fun <K, V, R : Any, C : MutableCollection<in R>> Map<out K,
V>.mapNotNullTo(destination: C, transform: (Map.Entry<K, V>) -> R?): C {\n  forEach { element ->
transform(element)?.let { destination.add(it) } }\n  return destination\n}\n\n**\n * Applies the given [transform]
function to each entry of the original map\n * and appends the results to the given [destination].\n *\npublic inline
fun <K, V, R, C : MutableCollection<in R>> Map<out K, V>.mapTo(destination: C, transform: (Map.Entry<K, V>)
-> R): C {\n  for (item in this)\n    destination.add(transform(item))\n  return destination\n}\n\n**\n * Returns
`true` if all entries match the given [predicate].\n * \n * Note that if the map contains no entries,
the function returns `true`\n * because there are no entries in it that _do not_ match the predicate.\n * See a more
detailed explanation of this logic concept in ["Vacuous truth"](https://en.wikipedia.org/wiki/Vacuous_truth)
article.\n * \n * @sample samples.collections.Collections.Aggregates.all\n *\npublic inline fun <K, V> Map<out K,
V>.all(predicate: (Map.Entry<K, V>) -> Boolean): Boolean {\n  if (isEmpty()) return true\n  for (element in this)
if (!predicate(element)) return false\n  return true\n}\n\n**\n * Returns `true` if map has at least one entry.\n * \n *
@\n * @sample samples.collections.Collections.Aggregates.any\n *\npublic fun <K, V> Map<out K, V>.any(): Boolean
{\n  return !isEmpty()\n}\n\n**\n * Returns `true` if at least one entry matches the given [predicate].\n * \n *
@\n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n *\npublic inline fun <K, V> Map<out K,
V>.any(predicate: (Map.Entry<K, V>) -> Boolean): Boolean {\n  if (isEmpty())
return false\n  for (element in this) if (predicate(element)) return true\n  return false\n}\n\n**\n * Returns the
number of entries in this map.\n *\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.count():
Int {\n  return size\n}\n\n**\n * Returns the number of entries matching the given [predicate].\n *\npublic inline
fun <K, V> Map<out K, V>.count(predicate: (Map.Entry<K, V>) -> Boolean): Int {\n  if (isEmpty()) return 0\n
var count = 0\n  for (element in this) if (predicate(element)) ++count\n  return count\n}\n\n**\n * Performs the
given [action] on each entry.\n *\n@kotlin.internal.HidesMembers\npublic inline fun <K, V> Map<out K,
V>.forEach(action: (Map.Entry<K, V>) -> Unit): Unit {\n  for (element in this) action(element)\n}\n\n**\n *
Returns the first entry yielding the largest value of the given function.\n * \n * @throws NoSuchElementException
if the map is empty.\n * \n * @sample samples.collections.Collections.Aggregates.maxBy\n
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxByOrThrow")\n@kotlin.internal.InlineOnly\n@Suppress
("CONFLICTING_OVERLOADS")\npublic inline fun <K, V, R : Comparable<R>> Map<out K,
V>.maxBy(selector: (Map.Entry<K, V>) -> R): Map.Entry<K, V> {\n  return entries.maxBy(selector)\n}\n\n**\n *
Returns the first entry yielding the largest value of the given function or `null` if there are no entries.\n * \n *

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```

@sample samples.collections.Collections.Aggregates.maxByOrNull\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out K, V>.maxByOrNull(selector: (Map.Entry<K, V>) -> R): Map.Entry<K, V>? {\n return entries.maxByOrNull(selector)\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each entry in the map.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the map is empty.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.maxOf(selector: (Map.Entry<K, V>) -> Double): Double {\n return entries.maxOf(selector)\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each entry in the map.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the map is empty.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.maxOf(selector: (Map.Entry<K, V>) -> Float): Float {\n return entries.maxOf(selector)\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each entry in the map.\n * \n * @throws NoSuchElementException if the map is empty.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out K, V>.maxOf(selector: (Map.Entry<K, V>) -> R): R {\n return entries.maxOf(selector)\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each entry in the map or `null` if there are no entries.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.maxOfOrNull(selector: (Map.Entry<K, V>) -> Double): Double? {\n return entries.maxOfOrNull(selector)\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each entry in the map or `null` if there are no entries.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.maxOfOrNull(selector: (Map.Entry<K, V>) -> Float): Float? {\n return entries.maxOfOrNull(selector)\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each entry in the map or `null` if there are no entries.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out K, V>.maxOfOrNull(selector: (Map.Entry<K, V>) -> R): R? {\n return entries.maxOfOrNull(selector)\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each entry in the map.\n * \n * @throws NoSuchElementException if the map is empty.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R> Map<out K, V>.maxOfWith(comparator: Comparator<in R>, selector: (Map.Entry<K, V>) -> R): R {\n return entries.maxOfWith(comparator, selector)\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each entry in the map or `null` if there are no entries.\n */\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R> Map<out K,

```



```

V>.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Map.Entry<K, V>) -> R): R? {\n  return
entries.maxOfWithOrNull(comparator,
  selector)\n}\n\n/**\n * Returns the first entry having the largest value according to the provided [comparator].\n *
\n * @throws NoSuchElementException if the map is empty.\n
*\n*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxWithOrThrow")\n@kotlin.internal.InlineOnly\n@Suppress(
"CONFLICTING_OVERLOADS")\npublic inline fun <K, V> Map<out K, V>.maxWith(comparator:
  Comparator<in Map.Entry<K, V>>): Map.Entry<K, V> {\n  return entries.maxWith(comparator)\n}\n\n/**\n *
  Returns the first entry having the largest value according to the provided [comparator] or `null` if there are no
  entries.\n
  *\n*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K,
  V>.maxWithOrNull(comparator: Comparator<in Map.Entry<K, V>>): Map.Entry<K, V>? {\n  return
  entries.maxWithOrNull(comparator)\n}\n\n/**\n * Returns the first entry yielding the smallest value of the given
  function.\n
  *\n * @throws NoSuchElementException if the map is empty.\n
  *\n * @sample samples.collections.Collections.Aggregates.minBy\n
*\n*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minByOrThrow")\n@kotlin.internal.InlineOnly\n@Suppress(
"CONFLICTING_OVERLOADS")\npublic inline fun <K, V, R : Comparable<R>> Map<out K,
  V>.minBy(selector: (Map.Entry<K, V>) -> R): Map.Entry<K, V> {\n  return entries.minBy(selector)\n}\n\n/**\n *
  Returns the first entry yielding the smallest value of the given function or `null` if there are no entries.\n
  *\n * @sample samples.collections.Collections.Aggregates.minByOrNull\n
*\n*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out
  K, V>.minByOrNull(selector: (Map.Entry<K, V>) -> R): Map.Entry<K, V>? {\n  return
  entries.minByOrNull(selector)\n}\n\n/**\n * Returns the smallest value among all values produced by [selector]
  function\n
  * applied to each entry in the map.\n
  *\n * If any of values produced by [selector] function is `NaN`, the
  returned result is `NaN`.\n
  *\n * @throws NoSuchElementException if the map is empty.\n
*\n*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
  ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.minOf(selector:
  (Map.Entry<K, V>) -> Double): Double {\n  return entries.minOf(selector)\n}\n\n/**\n * Returns the smallest
  value among all values produced by [selector] function\n
  * applied to each entry in the map.\n
  *\n * If any of values
  produced by [selector] function is `NaN`, the returned result is `NaN`.\n
  *\n * @throws NoSuchElementException
  if the map is empty.\n
*\n*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
  ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.minOf(selector:
  (Map.Entry<K, V>) -> Float): Float {\n  return entries.minOf(selector)\n}\n\n/**\n * Returns the smallest
  value among all values produced by [selector]
  function\n
  * applied to each entry in the map.\n
  *\n * @throws NoSuchElementException if the map is empty.\n
*\n*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
  ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out K,
  V>.minOf(selector: (Map.Entry<K, V>) -> R): R {\n  return entries.minOf(selector)\n}\n\n/**\n * Returns the
  smallest value among all values produced by [selector] function\n
  * applied to each entry in the map or `null` if
  there are no entries.\n
  *\n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*\n*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
  ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K,
  V>.minOfOrNull(selector: (Map.Entry<K, V>) -> Double): Double? {\n  return
  entries.minOfOrNull(selector)\n}\n\n/**\n * Returns the smallest
  value among all values produced by [selector] function\n
  * applied to each entry in the map or `null` if there are no
  entries.\n
  *\n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*\n*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
  ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K,

```

```

V>.minOfOrNull(selector: (Map.Entry<K, V>) -> Float): Float? {\n  return
entries.minOfOrNull(selector)\n}\n\n/**\n * Returns the smallest value among all values produced by [selector]
function\n * applied to each entry in the map or `null` if there are no entries.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out K,
V>.minOfOrNull(selector: (Map.Entry<K, V>) -> R): R? {\n  return entries.minOfOrNull(selector)\n}\n\n/**\n
 * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each entry in the map.\n * \n * @throws NoSuchElementException if the map is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R> Map<out K,
V>.minOfWith(comparator: Comparator<in R>, selector: (Map.Entry<K, V>) -> R): R {\n  return
entries.minOfWith(comparator, selector)\n}\n\n/**\n * Returns the smallest value according to the provided
[comparator]\n * among all values produced by [selector] function applied to each entry in the map or `null` if there
are no entries.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R> Map<out K,
V>.minOfWithOrNull(comparator: Comparator<in
R>, selector: (Map.Entry<K, V>) -> R): R? {\n  return entries.minOfWithOrNull(comparator,
selector)\n}\n\n/**\n * Returns the first entry having the smallest value according to the provided [comparator].\n *
\n * @throws NoSuchElementException if the map is empty.\n
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minWithOrThrow")\n@kotlin.internal.InlineOnly\n@Suppress
("CONFLICTING_OVERLOADS")\npublic inline fun <K, V> Map<out K, V>.minWith(comparator:
Comparator<in Map.Entry<K, V>>): Map.Entry<K, V> {\n  return entries.minWith(comparator)\n}\n\n/**\n
 * Returns the first entry having the smallest value according to the provided [comparator] or `null` if there are no
entries.\n * \n *\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K,
V>.minWithOrNull(comparator: Comparator<in Map.Entry<K, V>>): Map.Entry<K, V>? {\n  return
entries.minWithOrNull(comparator)\n}\n\n/**\n * Returns `true` if the map has no entries.\n * \n * @sample
samples.collections.Collections.Aggregates.none\n
*\npublic fun <K, V> Map<out K, V>.none(): Boolean {\n  return isEmpty()\n}\n\n/**\n * Returns `true` if no
entries match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n
*\npublic inline fun <K, V> Map<out K,
V>.none(predicate: (Map.Entry<K, V>) -> Boolean): Boolean {\n  if (isEmpty()) return true\n  for (element in
this) if (predicate(element)) return false\n  return true\n}\n\n/**\n * Performs the given [action] on each entry and
returns the map itself afterwards.\n * \n *\n@SinceKotlin("1.1")\npublic inline fun <K, V, M : Map<out K, V>>
M.onEach(action: (Map.Entry<K, V>) -> Unit): M {\n  return apply { for (element in this) action(element)
}\n}\n\n/**\n * Performs the given [action] on each entry, providing sequential index with the entry,\n * and returns
the map itself afterwards.\n * @param [action] function that takes the index of an entry and the entry itself\n * and
performs
the action on the entry.\n * \n *\n@SinceKotlin("1.4")\npublic inline fun <K, V, M : Map<out K, V>>
M.onEachIndexed(action: (index: Int, Map.Entry<K, V>) -> Unit): M {\n  return apply {
entries.forEachIndexed(action) }\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original map returning
its entries when being iterated.\n * \n *\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K,
V>.asIterable(): Iterable<Map.Entry<K, V>> {\n  return entries\n}\n\n/**\n * Creates a [Sequence] instance that
wraps the original map returning its entries when being iterated.\n * \n *\npublic fun <K, V> Map<out K,
V>.asSequence(): Sequence<Map.Entry<K, V>> {\n  return entries.asSequence()\n}\n\n", "/*\n * Copyright 2010-
2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n * \n *\npackage kotlin.text\n\n// NOTE:
THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n//

```

See: <https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib> 10 mappings totally

```

internal fun Char.titlecaseImpl(): String {
    val uppercase = uppercase()
    if (uppercase.length > 1) return if (this == '\u0149') uppercase else uppercase[0] + uppercase.substring(1).lowercase()
}
return titlecaseChar().toString()
}
"/>**
 * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.
 * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.
 */
package kotlin.text
/**
 * Converts this character to lower case using Unicode mapping rules of the invariant locale.
 */
@Deprecated("Use lowercaseChar() instead.")
ReplaceWith("lowercaseChar()")
@DeprecatedSinceKotlin(warningSince = "1.5")
@kotlin.internal.InlineOnly
public actual inline fun Char.toLowerCase(): Char = lowercaseChar()
/**
 * Converts this character to lower case using Unicode mapping rules of the invariant locale.
 * This function performs one-to-one character mapping.
 * To support one-to-many character mapping use the [lowercase] function.
 * If this character has no mapping equivalent, the character itself is returned.
 */
@sample samples.text.Chars.lowercase
/**
 * @SinceKotlin("1.5")
 * @WasExperimental(ExperimentalStdlibApi::class)
 */
@kotlin.internal.InlineOnly
public actual inline fun Char.lowercaseChar(): Char = lowercase()[0]
/**
 * Converts this character to lower case using Unicode mapping rules of the invariant locale.
 * This function supports one-to-many character mapping, thus the length of the returned string can be greater than one.
 * For example, ``\u0130'.lowercase()`` returns ``\u0069\u0307`` where ``\u0130`` is the LATIN CAPITAL LETTER I WITH DOT ABOVE character (``\u0130``).
 * If this character has no lower case mapping, the result of `toString()` of this char is returned.
 */
@sample samples.text.Chars.lowercase
/**
 * @SinceKotlin("1.5")
 * @WasExperimental(ExperimentalStdlibApi::class)
 */
@kotlin.internal.InlineOnly
public actual inline fun Char.lowercase(): String = toString().asDynamic().toLowerCase().unsafeCast<String>()
/**
 * Converts this character to upper case using Unicode mapping rules of the invariant locale.
 */
@Deprecated("Use uppercaseChar() instead.")
ReplaceWith("uppercaseChar()")
@DeprecatedSinceKotlin(warningSince = "1.5")
@kotlin.internal.InlineOnly
public actual inline fun Char.toUpperCase(): Char = uppercaseChar()
/**
 * Converts this character to upper case using Unicode mapping rules of the invariant locale.
 * This function performs one-to-one character mapping.
 * To support one-to-many character mapping use the [uppercase] function.
 * If this character has no mapping equivalent, the character itself is returned.
 */
@sample samples.text.Chars.uppercase
/**
 * @SinceKotlin("1.5")
 * @WasExperimental(ExperimentalStdlibApi::class)
 */
public actual fun Char.uppercaseChar(): Char {
    val uppercase = uppercase()
    return if (uppercase.length > 1) this else uppercase[0]
}
/**
 * Converts this character to upper case using Unicode mapping rules of the invariant locale.
 * This function supports one-to-many character mapping, thus the length of the returned string can be greater than one.
 * For example, ``\uFB00'.uppercase()`` returns ``\u0046\u0046`` where ``\uFB00`` is the LATIN SMALL LIGATURE FF character (``\uffb00``).
 * If this character has no upper case mapping, the result of `toString()` of this char is returned.
 */
@sample samples.text.Chars.uppercase
/**
 * @SinceKotlin("1.5")
 * @WasExperimental(ExperimentalStdlibApi::class)
 */
@kotlin.internal.InlineOnly
public actual inline fun Char.uppercase(): String = toString().asDynamic().toUpperCase().unsafeCast<String>()
/**
 * Converts this character to title case using Unicode mapping rules of the invariant locale.
 * This function performs one-to-one character mapping.
 * To support one-to-many character mapping use the [titlecase] function.
 * If this character has no mapping equivalent, the result of calling [uppercaseChar] is returned.
 */
@sample samples.text.Chars.titlecase
/**
 * @SinceKotlin("1.5")
 */
public actual fun Char.titlecaseChar(): Char = titlecaseCharImpl()
/**
 * Returns `true` if this character is a Unicode high-surrogate code unit (also known as leading-surrogate code unit).
 */
public actual fun Char.isHighSurrogate(): Boolean = this in Char.MIN_HIGH_SURROGATE..Char.MAX_HIGH_SURROGATE
/**
 * Returns `true` if this character is a Unicode low-surrogate code unit (also known as trailing-surrogate code unit).
 */
public actual fun

```

```

Char.isLowSurrogate(): Boolean = this in
Char.MIN_LOW_SURROGATE..Char.MAX_LOW_SURROGATE\n\n/**\n * Returns the Unicode general
category of this character.\n *\n@SinceKotlin("1.5")\npublic actual val Char.category:
CharCategory\n  get() = CharCategory.valueOf(getCategoryValue())\n\n/**\n * Returns `true` if this character
(Unicode code point) is defined in Unicode.\n *\n * A character is considered to be defined in Unicode if its
[category] is not [CharCategory.UNASSIGNED].\n *\n@SinceKotlin("1.5")\npublic actual fun Char.isDefined():
Boolean {\n  if (this < "\u0080") {\n    return true\n  }\n  return getCategoryValue() !=
CharCategory.UNASSIGNED.value\n}\n\n/**\n * Returns `true` if this character is a letter.\n *\n * A character is
considered to be a letter if its [category] is [CharCategory.UPPERCASE_LETTER],\n *\n [CharCategory.LOWERCASE_LETTER], [CharCategory.TITLECASE_LETTER],
[CharCategory.MODIFIER_LETTER], or [CharCategory.OTHER_LETTER].\n *\n * @sample
samples.text.Chars.isLetter\n *\n@SinceKotlin("1.5")\npublic actual fun Char.isLetter(): Boolean {\n  if (this in
'a..'z' || this in 'A..'Z') {\n    return true\n  }\n  if (this < "\u0080") {\n    return false\n
  }\n  return isLetterImpl()\n}\n\n/**\n * Returns `true` if this character is a letter or digit.\n *\n * @see isLetter\n
* @see isDigit\n *\n * @sample samples.text.Chars.isLetterOrDigit\n *\n@SinceKotlin("1.5")\npublic actual fun
Char.isLetterOrDigit(): Boolean {\n  if (this in 'a..'z' || this in 'A..'Z' || this in '0..'9') {\n    return true\n
  }\n  if (this < "\u0080") {\n    return false\n  }\n  return isDigitImpl() || isLetterImpl()\n}\n\n/**\n * Returns `true` if
this character is a digit.\n *\n * A character is considered to be a digit if its [category] is
[CharCategory.DECIMAL_DIGIT_NUMBER].\n *\n * @sample samples.text.Chars.isDigit\n
*\n@SinceKotlin("1.5")\npublic actual fun Char.isDigit(): Boolean {\n  if (this in '0..'9') {\n    return true\n
  }\n  if (this < "\u0080") {\n    return false\n  }\n  return isDigitImpl()\n}\n\n/**\n * Returns `true` if this
character is upper case.\n *\n * A character is considered to
be an upper case character if its [category] is [CharCategory.UPPERCASE_LETTER],\n *\n * or it has contributory
property `Other_Uppercase` as defined by the Unicode Standard.\n *\n * @sample
samples.text.Chars.isUpperCase\n *\n@SinceKotlin("1.5")\npublic actual fun Char.isUpperCase(): Boolean {\n  if
(this in 'A..'Z') {\n    return true\n  }\n  if (this < "\u0080") {\n    return false\n  }\n  return
isUpperCaseImpl()\n}\n\n/**\n * Returns `true` if this character is lower case.\n *\n * A character is considered to
be a lower case character if its [category] is [CharCategory.LOWERCASE_LETTER],\n *\n * or it has contributory
property `Other_Lowercase` as defined by the Unicode Standard.\n *\n * @sample
samples.text.Chars.isLowerCase\n *\n@SinceKotlin("1.5")\npublic actual fun Char.isLowerCase(): Boolean {\n  if
(this in 'a..'z') {\n    return true\n  }\n  if (this < "\u0080") {\n    return false\n  }\n  return
isLowerCaseImpl()\n}\n\n/**\n * Returns
`true` if this character is a title case letter.\n *\n * A character is considered to be a title case letter if its [category] is
[CharCategory.TITLECASE_LETTER].\n *\n * @sample samples.text.Chars.isTitleCase\n
*\n@SinceKotlin("1.5")\npublic actual fun Char.isTitleCase(): Boolean {\n  if (this < "\u0080") {\n    return
false\n  }\n  return getCategoryValue() == CharCategory.TITLECASE_LETTER.value\n}\n\n/**\n * Returns
`true` if this character is an ISO control character.\n *\n * A character is considered to be an ISO control character if
its [category] is [CharCategory.CONTROL],\n *\n * meaning the Char is in the range `'\u0000'..' \u001F` or in the
range `'\u007F'..' \u009F`. \n *\n * @sample samples.text.Chars.isISOControl\n *\n@SinceKotlin("1.5")\npublic
actual fun Char.isISOControl(): Boolean {\n  return this <= "\u001F" || this in "\u007F'..' \u009F"\n}\n\n/**\n *
Determines whether a character is whitespace according to the Unicode standard.\n * Returns `true`
if the character is whitespace.\n *\n * @sample samples.text.Chars.isWhitespace\n *\npublic actual fun
Char.isWhitespace(): Boolean = isWhitespaceImpl()", /*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n *\npackage kotlin.text\nimport kotlin.js.RegExp\n\n/**\n * Converts
the characters in the specified array to a string.\n *\n@SinceKotlin("1.2")\n@Deprecated("Use
CharArray.concatToString() instead",
ReplaceWith("chars.concatToString()"))\n@DeprecatedSinceKotlin(warningSince = "1.4", errorSince =

```

```

\"1.5\")\npublic actual fun String(chars: CharArray): String {\n    var result = \"\"\n    for (char in chars) {\n        result += char\n    }\n    return result\n}\n\n/**\n * Converts the characters from a portion of the specified array to a\n * string.\n * @throws IndexOutOfBoundsException if either [offset] or [length]\n * are less than zero\n * or `offset + length` is out of [chars] array bounds.\n *\n * @SinceKotlin(\"1.2\")\n * @Deprecated(\"Use CharArray.concatToString(startIndex, endIndex) instead\",\n * ReplaceWith(\"chars.concatToString(offset, offset + length)\"))\n * @DeprecatedSinceKotlin(warningSince = \"1.4\",\n * errorSince = \"1.5\")\n * public actual fun String(chars: CharArray, offset: Int, length: Int): String {\n *     if (offset < 0 ||\n *         length < 0 || chars.size - offset < length)\n *         throw IndexOutOfBoundsException(\"size: ${chars.size}; offset:\n * $offset; length: $length\")\n *     var result = \"\"\n *     for (index in offset until offset + length) {\n *         result +=\n *         chars[index]\n *     }\n *     return result\n * }\n * }\n * /**\n * Concatenates characters in this [CharArray] into a String.\n *\n * @SinceKotlin(\"1.4\")\n * @WasExperimental(ExperimentalStdlibApi::class)\n * public actual fun\n * CharArray.concatToString(): String {\n *     var result = \"\"\n *     for (char in this) {\n *         result += char\n *     }\n *     return result\n * }\n * /**\n * Concatenates characters in this [CharArray] or its subrange into a String.\n * @param startIndex the\n * beginning (inclusive) of the subrange of characters, 0 by default.\n * @param endIndex the end (exclusive) of the\n * subrange of characters, size of this array by default.\n * @throws IndexOutOfBoundsException if [startIndex]\n * is less than zero or [endIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if\n * [startIndex] is greater than [endIndex].\n *\n * @SinceKotlin(\"1.4\")\n * @WasExperimental(ExperimentalStdlibApi::class)\n * @Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\n * public actual fun CharArray.concatToString(startIndex: Int = 0,\n * endIndex: Int = this.size): String {\n *     AbstractList.checkBoundsIndexes(startIndex, endIndex, this.size)\n *     var\n *     result = \"\"\n *     for (index in startIndex until endIndex) {\n *         result += this[index]\n *     }\n *     return\n *     result\n * }\n * /**\n * Returns a [CharArray] containing characters of this string.\n *\n * @SinceKotlin(\"1.4\")\n * @WasExperimental(ExperimentalStdlibApi::class)\n * public actual fun\n * String.toCharArray(): CharArray {\n *     return CharArray(length) { get(it) }\n * }\n * /**\n * Returns a [CharArray]\n * containing characters of this string or its substring.\n * @param startIndex the beginning (inclusive) of the\n * substring, 0 by default.\n * @param endIndex the end (exclusive) of the substring,\n * length of this string by default.\n * @throws IndexOutOfBoundsException if [startIndex] is less than zero or [endIndex] is greater than the length\n * of this string.\n * @throws IllegalArgumentException if [startIndex] is greater than [endIndex].\n *\n * @SinceKotlin(\"1.4\")\n * @WasExperimental(ExperimentalStdlibApi::class)\n * @Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\n * public actual fun String.toCharArray(startIndex: Int = 0, endIndex: Int\n * = this.length): CharArray {\n *     AbstractList.checkBoundsIndexes(startIndex, endIndex, length)\n *     return\n *     CharArray(endIndex - startIndex)\n *     {\n *         get(startIndex + it)\n *     }\n * }\n * /**\n * Decodes a string from the bytes in UTF-8 encoding in this array.\n * @throws\n * Malformed byte sequences are replaced by the replacement char `\\uFFFD`.\n *\n * @SinceKotlin(\"1.4\")\n * @WasExperimental(ExperimentalStdlibApi::class)\n * public actual fun\n * ByteArray.decodeToString(): String {\n *     return decodeUtf8(this, 0, size, false)\n * }\n * /**\n * Decodes a string from\n * the bytes in UTF-8 encoding in this array or its subrange.\n * @param startIndex the beginning (inclusive) of the\n * subrange to decode, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to decode,\n * size of this\n * array by default.\n * @param throwOnInvalidSequence specifies whether to throw an exception on malformed byte\n * sequence or replace it by the replacement char `\\uFFFD`.\n * @throws IndexOutOfBoundsException if\n * [startIndex] is less than zero or [endIndex] is greater than the size of this array.\n * @throws\n * IllegalArgumentException if [startIndex] is greater than [endIndex].\n * @throws\n * CharacterCodingException if the byte array contains malformed UTF-8 byte sequence and\n * [throwOnInvalidSequence] is true.\n *\n * @SinceKotlin(\"1.4\")\n * @WasExperimental(ExperimentalStdlibApi::class)\n * @Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\n * public actual fun ByteArray.decodeToString(\n *     startIndex: Int = 0,\n *     endIndex: Int = this.size,\n *     throwOnInvalidSequence: Boolean = false): String {\n *

```





\* Throws an exception if the [radix] is not in the range `2..36` or if this Char is not a valid digit in the specified [radix].  
 \* A Char is considered to represent a digit in the specified [radix] if at least one of the following is true:  
 \* - [isDigit] is `true` for the Char and the Unicode decimal digit value of the character is less than the specified [radix]. In this case the decimal digit value is returned.  
 \* - The Char is one of the uppercase Latin letters 'A' through 'Z' and its [code] is less than `radix + 'A'.code - 10`. In this case, `this.code - 'A'.code + 10` is returned.  
 \* - The Char is one of the lowercase Latin letters 'a' through 'z' and its [code] is less than `radix + 'a'.code - 10`. In this case, `this.code - 'a'.code + 10` is returned.  
 \* - The Char is one of the fullwidth Latin capital letters "\uFF21" through "\uFF3A" and its [code] is less than `radix + 0xFF21 - 10`. In this case, `this.code - 0xFF21 + 10` is returned.  
 \* - The Char is one of the fullwidth Latin small letters "\uFF41" through "\uFF5A" and its [code] is less than `radix + 0xFF41 - 10`. In this case, `this.code - 0xFF41 + 10` is returned.

```
@sample samples.text.Chars.digitToInt
*
* Since Kotlin("1.5")
* WasExperimental(ExperimentalStdlibApi::class)
public fun Char.digitToInt(radix: Int): Int {
    return digitToIntOrNull(radix) ?: throw IllegalArgumentException("\Char $this is not a digit in the given radix=$radix")
}
* Returns the numeric value of the decimal digit that this Char represents, or `null` if this Char is not a valid decimal digit.
* A Char is considered to represent a decimal digit if [isDigit] is true for the Char.
* In this case, the Unicode decimal digit value of the character is returned.
* @sample samples.text.Chars.digitToIntOrNull
```

```
@Since Kotlin("1.5")
@WasExperimental(ExperimentalStdlibApi::class)
public fun Char.digitToIntOrNull(): Int? {
    return digitOf(this, 10).takeIf { it >= 0 }
}
* Returns the numeric value of the digit that this Char represents in the specified [radix], or `null` if this Char is not a valid digit in the specified [radix].
* Throws an exception if the [radix] is not in the range `2..36`.
* A Char is considered to represent a digit in the specified [radix] if at least one of the following is true:
* - [isDigit] is `true` for the Char and the Unicode decimal digit value of the character is less than the specified [radix]. In this case the decimal digit value is returned.
* - The Char is one of the uppercase Latin letters 'A' through 'Z' and its [code] is less than `radix + 'A'.code - 10`. In this case, `this.code - 'A'.code + 10` is returned.
* - The Char is one of the lowercase Latin letters 'a' through 'z' and its [code] is less than `radix + 'a'.code - 10`. In this case, `this.code - 'a'.code + 10` is returned.
* - The Char is one of the fullwidth Latin capital letters "\uFF21" through "\uFF3A" and its [code] is less than `radix + 0xFF21 - 10`. In this case, `this.code - 0xFF21 + 10` is returned.
* - The Char is one of the fullwidth Latin small letters "\uFF41" through "\uFF5A" and its [code] is less than `radix + 0xFF41 - 10`. In this case, `this.code - 0xFF41 + 10` is returned.
```

```
@sample samples.text.Chars.digitToIntOrNull
*
* Since Kotlin("1.5")
* WasExperimental(ExperimentalStdlibApi::class)
public fun Char.digitToIntOrNull(radix: Int): Int? {
    checkRadix(radix)
    return digitOf(this, radix).takeIf { it >= 0 }
}
* Returns the Char that represents this decimal digit.
* Throws an exception if this value is not in the range `0..9`.
* If this value is in `0..9`, the decimal digit Char with code `0'.code + this` is returned.
* @sample samples.text.Chars.digitToChar
```

```
@Since Kotlin("1.5")
@WasExperimental(ExperimentalStdlibApi::class)
public fun Int.digitToChar(): Char {
    if (this in 0..9) {
        return '0' + this
    }
    throw IllegalArgumentException("\Int $this is not a decimal digit")
}
* Returns the Char that represents this numeric digit value in the specified [radix].
* Throws an exception if the [radix] is not in the range `2..36` or if this value is not in the range `0` until `radix`.
* If this value is less than `10`, the decimal digit Char with code `0'.code + this` is returned.
* Otherwise, the uppercase Latin letter with code `A'.code + this - 10` is returned.
* @sample samples.text.Chars.digitToChar
```

```
@Since Kotlin("1.5")
@WasExperimental(ExperimentalStdlibApi::class)
public fun Int.digitToChar(radix: Int): Char {
    if (radix !in 2..36) {
        throw IllegalArgumentException("\Invalid radix: $radix. Valid radix values are in range 2..36")
    }
    if (this < 0 || this >= radix) {
        throw IllegalArgumentException("\Digit
```



```

$this does not represent a valid digit in radix $radix")\n } \n return if (this < 10) {\n '0' + this\n } else {\n 'A' + this - 10\n }\n}\n\n/**\n * Converts this character to lower case using Unicode mapping rules of the invariant locale.\n */\n@Deprecated("Use lowercaseChar() instead.")\nReplaceWith("lowercaseChar()")\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic expect fun\nChar.toLowerCase(): Char\n\n/**\n * Converts this character to lower case using Unicode mapping rules of the\n invariant locale.\n * This function performs one-to-one character mapping.\n * To support one-to-many\n character mapping use the [lowercase] function.\n * If this character has no mapping equivalent, the character itself\n is returned.\n * @sample samples.text.Chars.lowercase\n */\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun\nChar.lowercaseChar(): Char\n\n/**\n * Converts this character to lower case using Unicode mapping rules of the\n invariant locale.\n * This function supports one-to-many character mapping, thus the length of the returned\n string can be greater than one.\n * For example, `'\u0130'.toLowerCase()` returns `'\u0069\u0307'`,\n * where `'\u0130` is the LATIN CAPITAL\n LETTER I WITH DOT ABOVE character (`\u0130`).\n * If this character has no lower case mapping, the result of\n `toString()` of this char is returned.\n * @sample samples.text.Chars.lowercase\n */\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun\nChar.lowercase(): String\n\n/**\n * Converts this character to upper case using Unicode mapping rules of the\n invariant locale.\n */\n@Deprecated("Use uppercaseChar() instead.")\nReplaceWith("uppercaseChar()")\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic expect fun\nChar.toUpperCase(): Char\n\n/**\n * Converts this character to upper case using Unicode mapping rules of the\n invariant locale.\n * This function performs one-to-one character mapping.\n * To support one-to-many\n character mapping use the [uppercase] function.\n * If this character has no mapping equivalent, the character\n itself is returned.\n * @sample samples.text.Chars.uppercase\n */\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun\nChar.uppercaseChar(): Char\n\n/**\n * Converts this character to upper case using Unicode mapping rules of the\n invariant locale.\n * This function supports one-to-many character mapping, thus the length of the returned\n string can be greater than one.\n * For example, `'\uFB00'.uppercase()` returns `'\u0046\u0046'`,\n * where `'\uFB00` is the LATIN SMALL LIGATURE FF character (`\ufb00`).\n * If this character has no upper case\n mapping, the result of `toString()` of this char is returned.\n * @sample samples.text.Chars.uppercase\n */\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun\nChar.uppercase(): String\n\n/**\n * Converts this character to title case using Unicode mapping rules of the\n invariant locale.\n * This function performs one-to-one character mapping.\n * To support one-to-many character mapping use the [titlecase] function.\n * If this character has no mapping\n equivalent, the result of calling [uppercaseChar] is returned.\n * @sample samples.text.Chars.titlecase\n */\n@SinceKotlin("1.5")\npublic expect fun Char.titlecaseChar(): Char\n\n/**\n * Converts this character to title\n case using Unicode mapping rules of the invariant locale.\n * This function supports one-to-many character\n mapping, thus the length of the returned string can be greater than one.\n * For example, `'\uFB00'.titlecase()`\n returns `'\u0046\u0066'`,\n * where `'\uFB00` is the LATIN SMALL LIGATURE FF character (`\ufb00`).\n * If this character has no title case mapping, the result of [uppercase] is returned instead.\n * @sample\n samples.text.Chars.titlecase\n */\n@SinceKotlin("1.5")\npublic fun Char.titlecase(): String =\ntitlecaseImpl()\n\n/**\n * Concatenates this Char and a String.\n * @sample samples.text.Chars.plus\n */\n@kotlin.internal.InlineOnly\npublic\ninline operator fun Char.plus(other: String): String = this.toString() + other\n\n/**\n * Returns `true` if this\n character is equal to the [other] character, optionally ignoring character case.\n * Two characters are considered\n equal ignoring case if `Char.uppercaseChar().lowercaseChar()` on each character produces the same result.\n * @param ignoreCase `true` to ignore character case when comparing characters. By default `false`.\n * @sample\n samples.text.Chars.equals\n */\npublic fun Char.equals(other: Char, ignoreCase: Boolean = false): Boolean {\n if

```

```

(this == other) return true\n  if (!ignoreCase) return false\n\n  val thisUpper = this.uppercaseChar()\n  val
otherUpper = other.uppercaseChar()\n  return thisUpper == otherUpper || thisUpper.lowercaseChar() ==
otherUpper.lowercaseChar()\n}\n\n/**\n * Returns `true` if this character is a Unicode surrogate code unit.\n
*/\npublic fun Char.isSurrogate(): Boolean = this in Char.MIN_SURROGATE..Char.MAX_SURROGATE\n\n/**\n
 * Returns the Unicode general category of this character.\n * \n @SinceKotlin("1.5")\npublic expect val
Char.category: CharCategory\n\n/**\n * Returns `true` if this character (Unicode code point) is defined in
Unicode.\n * \n * A character is considered to be defined in Unicode if its [category] is not
[CharCategory.UNASSIGNED].\n * \n @SinceKotlin("1.5")\npublic expect fun Char.isDefined():
Boolean\n\n/**\n * Returns `true` if this character is a letter.\n * \n * A character is considered to be a letter if its
[category] is [CharCategory.UPPERCASE_LETTER],\n * [CharCategory.LOWERCASE_LETTER],
[CharCategory.TITLECASE_LETTER], [CharCategory.MODIFIER_LETTER], or
[CharCategory.OTHER_LETTER].\n * \n * @sample samples.text.Chars.isLetter\n
*/\n @SinceKotlin("1.5")\npublic expect fun Char.isLetter(): Boolean\n\n/**\n * Returns `true` if this character is a
letter or digit.\n * \n * @see isLetter\n * @see isDigit\n * \n * @sample samples.text.Chars.isLetterOrDigit\n
*/\n @SinceKotlin("1.5")\npublic
expect fun Char.isLetterOrDigit(): Boolean\n\n/**\n * Returns `true` if this character is a digit.\n * \n * A character
is considered to be a digit if its [category] is [CharCategory.DECIMAL_DIGIT_NUMBER].\n * \n * @sample
samples.text.Chars.isDigit\n * \n @SinceKotlin("1.5")\npublic expect fun Char.isDigit(): Boolean\n\n/**\n
 * Returns `true` if this character is upper case.\n * \n * A character is considered to be an upper case character if its
[category] is [CharCategory.UPPERCASE_LETTER],\n * or it has contributory property `Other_Uppercase` as
defined by the Unicode Standard.\n * \n * @sample samples.text.Chars.isUpperCase\n
*/\n @SinceKotlin("1.5")\npublic expect fun Char.isUpperCase(): Boolean\n\n/**\n * Returns `true` if this
character is lower case.\n * \n * A character is considered to be a lower case character if its [category] is
[CharCategory.LOWERCASE_LETTER],\n * or it has contributory property `Other_Lowercase` as defined by the
Unicode Standard.\n
 * \n * @sample samples.text.Chars.isLowerCase\n * \n @SinceKotlin("1.5")\npublic expect fun
Char.isLowerCase(): Boolean\n\n/**\n * Returns `true` if this character is a title case letter.\n * \n * A character is
considered to be a title case letter if its [category] is [CharCategory.TITLECASE_LETTER].\n * \n * @sample
samples.text.Chars.isTitleCase\n * \n @SinceKotlin("1.5")\npublic expect fun Char.isTitleCase(): Boolean\n\n/**\n
 * Returns `true` if this character is an ISO control character.\n * \n * A character is considered to be an ISO control
character if its [category] is [CharCategory.CONTROL],\n * meaning the Char is in the range `'\u0000'..''\u001F'`
or in the range `'\u007F'..''\u009F'`.\n * \n * @sample samples.text.Chars.isISOControl\n
*/\n @SinceKotlin("1.5")\npublic expect fun Char.isISOControl(): Boolean\n\n/**\n * Determines whether a
character is whitespace according to the Unicode standard.\n * Returns `true` if the character is whitespace.\n * \n *
@sample samples.text.Chars.isWhitespace\n
*/\npublic expect fun Char.isWhitespace(): Boolean\n", "/\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n * \n @n\npackage kotlin\n\n/**\n * Creates a Char with the specified [code],
or throws an exception if the [code] is out of `Char.MIN_VALUE.code..Char.MAX_VALUE.code`.\n * \n * If the
program that calls this function is written in a way that only valid [code] is passed as the argument,\n * using the
overload that takes a [UShort] argument is preferable (`Char(intValue.toUShort())`).\n * That overload doesn't check
validity of the argument, and may improve program performance when the function is called routinely inside a
loop.\n * \n * @sample samples.text.Chars.charFromCode\n
*/\n @SinceKotlin("1.5")\n @WasExperimental(ExperimentalStdlibApi::class)\n @kotlin.internal.InlineOnly\npublic
c inline fun Char(code:
Int): Char {\n  if (code < Char.MIN_VALUE.code || code > Char.MAX_VALUE.code) {\n    throw
IllegalArgumentException("Invalid Char code: $code")\n  }\n  return code.toChar()\n}\n\n/**\n * Creates a Char
with the specified [code].\n * \n * @sample samples.text.Chars.charFromCode\n

```

```

*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress("NO_ACTUAL_FOR_EXPECT")\npublic expect fun Char(code: UShort): Char\n\n/**\n * Returns the code of this Char.\n *\n * Code of a Char is the value it was constructed with, and the UTF-16 code unit corresponding to this Char.\n *\n * @sample samples.text.Chars.code\n */
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\n@Suppress("DEPRECATION")\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline val Char.code: Int get() = this.toInt()\n\n/**\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */
*\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("SequencesKt")\n\npackage kotlin.sequences\n\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\nimport kotlin.random.*\n\n/**\n * Returns `true` if [element] is found in the sequence.\n *\n * The operation is _terminal_.\n *\n * @public operator fun <@kotlin.internal.OnlyInputTypes T> Sequence<T>.contains(element: T): Boolean {\n    return indexOf(element) >= 0\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this sequence.\n *\n * The operation is _terminal_.\n *\n * @sample samples.collections.Collections.Elements.elementAt\n *\n * @public fun <T> Sequence<T>.elementAt(index: Int): T {\n    return elementAtOrElse(index) { throw IndexOutOfBoundsException("Sequence doesn't contain element at index $index.") }\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this sequence.\n *\n * The operation is _terminal_.\n *\n * @sample samples.collections.Collections.Elements.elementAtOrElse\n *\n * @public fun <T> Sequence<T>.elementAtOrElse(index: Int, defaultValue: (Int) -> T): T {\n    if (index < 0)\n        return defaultValue(index)\n    val iterator = iterator()\n    var count = 0\n    while (iterator.hasNext()) {\n        val element = iterator.next()\n        if (index == count++)\n            return element\n    }\n    return defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this sequence.\n *\n * The operation is _terminal_.\n *\n * @sample samples.collections.Collections.Elements.elementAtOrNull\n *\n * @public fun <T> Sequence<T>.elementAtOrNull(index: Int): T? {\n    if (index < 0)\n        return null\n    val iterator = iterator()\n    var count = 0\n    while (iterator.hasNext()) {\n        val element = iterator.next()\n        if (index == count++)\n            return element\n    }\n    return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n *\n * The operation is _terminal_.\n *\n * @sample samples.collections.Collections.Elements.find\n */
*\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.find(predicate: (T) -> Boolean): T? {\n    return firstOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n *\n * The operation is _terminal_.\n *\n * @sample samples.collections.Collections.Elements.find\n */
*\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.findLast(predicate: (T) -> Boolean): T? {\n    return lastOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element is found.\n *\n * The operation is _terminal_.\n *\n * @public inline fun <T> Sequence<T>.first(predicate: (T) -> Boolean): T {\n    for (element in this) if (predicate(element)) return element\n    throw NoSuchElementException("Sequence contains no element matching the predicate.")\n}\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to elements of this sequence in iteration order, or throws [NoSuchElementException] if no non-null value was produced.\n *\n * The operation is _terminal_.\n *\n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */

```

```

*^@SinceKotlin("1.5")@kotlin.internal.InlineOnly\npublic inline fun <T, R : Any>
Sequence<T>.firstNotNullOf(transform: (T) -> R?): R {\n    return firstNotNullOfOrNull(transform) ?: throw
NoSuchElementException("No element of the sequence was transformed to a non-null value.")\n}\n\n/**\n *
Returns the first non-null value produced by [transform] function being applied to elements of this sequence in
iteration order,\n * or `null` if no non-null value was produced.\n *\n * The operation is _terminal_.\n *\n *
@sample samples.collections.Collections.Transformations.firstNotNullOf\n
*^@SinceKotlin("1.5")@kotlin.internal.InlineOnly\npublic inline fun <T, R : Any>
Sequence<T>.firstNotNullOfOrNull(transform: (T) -> R?): R? {\n    for (element in this) {\n        val result =
transform(element)\n        if (result != null) {\n            return result\n        }\n    }\n    return null\n}\n\n/**\n *
Returns the first element, or `null` if the
sequence is empty.\n *\n * The operation is _terminal_.\n *\npublic fun <T> Sequence<T>.firstOrNull(): T? {\n    val iterator = iterator()\n    if (!iterator.hasNext())\n        return null\n    return iterator.next()\n}\n\n/**\n * Returns
the first element matching the given [predicate], or `null` if element was not found.\n *\n * The operation is
_terminal_.\n *\npublic inline fun <T> Sequence<T>.firstOrNull(predicate: (T) -> Boolean): T? {\n    for (element
in this) if (predicate(element)) return element\n    return null\n}\n\n/**\n * Returns first index of [element], or -1 if
the sequence does not contain element.\n *\n * The operation is _terminal_.\n *\npublic fun
<@kotlin.internal.OnlyInputTypes T> Sequence<T>.indexOf(element: T): Int {\n    var index = 0\n    for (item in
this) {\n        checkIndexOverflow(index)\n        if (element == item)\n            return index\n        index++\n    }\n    return -1\n}\n\n/**\n * Returns index of the first element matching the given
[predicate], or -1 if the sequence does not contain such element.\n *\n * The operation is _terminal_.\n *\npublic
inline fun <T> Sequence<T>.indexOfFirst(predicate: (T) -> Boolean): Int {\n    var index = 0\n    for (item in this)
{\n        checkIndexOverflow(index)\n        if (predicate(item))\n            return index\n        index++\n    }\n    return -
1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the sequence does not
contain such element.\n *\n * The operation is _terminal_.\n *\npublic inline fun <T>
Sequence<T>.indexOfLast(predicate: (T) -> Boolean): Int {\n    var lastIndex = -1\n    var index = 0\n    for (item in
this) {\n        checkIndexOverflow(index)\n        if (predicate(item))\n            lastIndex = index\n            index++\n    }\n    return lastIndex\n}\n\n/**\n * Returns the last element.\n *\n * The operation is _terminal_.\n *\n * @throws
NoSuchElementException if the sequence is empty.\n *\n * @sample
samples.collections.Collections.Elements.last\n
*^npublic fun <T> Sequence<T>.last(): T {\n    val iterator = iterator()\n    if (!iterator.hasNext())\n        throw
NoSuchElementException("Sequence is empty.")\n    var last = iterator.next()\n    while (iterator.hasNext())\n        last = iterator.next()\n    return last\n}\n\n/**\n * Returns the last element matching the given [predicate].\n *\n * The operation is _terminal_.\n *\n * @throws
NoSuchElementException if no such element is found.\n *\n * @sample
samples.collections.Collections.Elements.last\n
*^npublic inline fun <T> Sequence<T>.last(predicate: (T)
-> Boolean): T {\n    var last: T? = null\n    var found = false\n    for (element in this) {\n        if (predicate(element))
{\n            last = element\n            found = true\n        }\n    }\n    if (!found) throw
NoSuchElementException("Sequence contains no element matching the predicate.")\n    @Suppress("UNCHECKED_CAST")\n    return last as T\n}\n\n/**\n * Returns
last index of [element], or -1 if the sequence does not contain element.\n *\n * The operation is _terminal_.\n *\npublic
fun <@kotlin.internal.OnlyInputTypes T> Sequence<T>.lastIndexOf(element: T): Int {\n    var lastIndex
= -1\n    var index = 0\n    for (item in this) {\n        checkIndexOverflow(index)\n        if (element == item)\n            lastIndex = index\n            index++\n    }\n    return lastIndex\n}\n\n/**\n * Returns the last element, or `null` if the
sequence is empty.\n *\n * The operation is _terminal_.\n *\n * @sample
samples.collections.Collections.Elements.last\n
*^npublic fun <T> Sequence<T>.lastOrNull(): T? {\n    val iterator
= iterator()\n    if (!iterator.hasNext())\n        return null\n    var last = iterator.next()\n    while (iterator.hasNext())\n        last = iterator.next()\n    return last\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null`
if no such element was found.\n *\n * The operation is _terminal_.\n *\n *

```



destination\n}\n\n/\*\*\n

\* Returns a sequence containing all elements that are instances of specified type parameter R.\n \* The operation is \_intermediate\_ and \_stateless\_.\n \* @sample samples.collections.Collections.Filtering.filterIsInstance\n \* \npublic inline fun <reified R> Sequence<\*>.filterIsInstance(): Sequence<@kotlin.internal.NoInfer R> {\n @Suppress(\"UNCHECKED\_CAST\")\n return filter { it is R } as Sequence<R>\n}\n\n/\*\*\n \* Appends all elements that are instances of specified type parameter R to the given [destination].\n \* The operation is \_terminal\_.\n \* @sample samples.collections.Collections.Filtering.filterIsInstanceTo\n \* \npublic inline fun <reified R, C : MutableCollection<in R>> Sequence<\*>.filterIsInstanceTo(destination: C): C {\n for (element in this) if (element is R) destination.add(element)\n return destination\n}\n\n/\*\*\n \* Returns a sequence containing all elements not matching the given [predicate].\n \* The operation is \_intermediate\_ and \_stateless\_.\n \* @sample samples.collections.Collections.Filtering.filter\n \* \npublic fun <T> Sequence<T>.filterNot(predicate: (T) -> Boolean): Sequence<T> {\n return FilteringSequence(this, false, predicate)\n}\n\n/\*\*\n \* Returns a sequence containing all elements that are not `null`.\n \* The operation is \_intermediate\_ and \_stateless\_.\n \* @sample samples.collections.Collections.Filtering.filterNotNull\n \* \npublic fun <T : Any> Sequence<T?>.filterNotNull(): Sequence<T> {\n

@Suppress(\"UNCHECKED\_CAST\")\n return filterNot { it == null } as Sequence<T>\n}\n\n/\*\*\n \* Appends all elements that are not `null` to the given [destination].\n \* The operation is \_terminal\_.\n \* @sample samples.collections.Collections.Filtering.filterNotNullTo\n \* \npublic fun <C : MutableCollection<in T>, T : Any> Sequence<T?>.filterNotNullTo(destination: C): C {\n for (element in this) if (element != null)\n destination.add(element)\n return destination\n}\n\n/\*\*\n \* Appends all elements not matching the given [predicate] to the given [destination].\n \* The operation is \_terminal\_.\n \* @sample samples.collections.Collections.Filtering.filterTo\n \* \npublic inline fun <T, C : MutableCollection<in T>> Sequence<T>.filterNotTo(destination: C, predicate: (T) -> Boolean): C {\n for (element in this) if (!predicate(element)) destination.add(element)\n return destination\n}\n\n/\*\*\n \* Appends all elements matching the given [predicate] to the given [destination].\n \* The operation is \_terminal\_.\n \* @sample samples.collections.Collections.Filtering.filterTo\n \* \npublic inline fun <T, C : MutableCollection<in T>> Sequence<T>.filterTo(destination: C, predicate: (T) -> Boolean): C {\n for (element in this) if (predicate(element)) destination.add(element)\n return destination\n}\n\n/\*\*\n \* Returns a sequence containing first [n] elements.\n \* The operation is \_intermediate\_ and \_stateless\_.\n \* @throws

IllegalArgumentException

if [n] is negative.\n \* @sample samples.collections.Collections.Transformations.take\n \* \npublic fun <T> Sequence<T>.take(n: Int): Sequence<T> {\n require(n >= 0) { \"Requested element count \$n is less than zero.\" }\n return when {\n n == 0 -> emptySequence()\n this is DropTakeSequence -> this.take(n)\n else -> TakeSequence(this, n)\n }\n}\n\n/\*\*\n \* Returns a sequence containing first elements satisfying the given [predicate].\n \* The operation is \_intermediate\_ and \_stateless\_.\n \* @sample samples.collections.Collections.Transformations.take\n \* \npublic fun <T> Sequence<T>.takeWhile(predicate: (T) -> Boolean): Sequence<T> {\n return TakeWhileSequence(this, predicate)\n}\n\n/\*\*\n \* Returns a sequence that yields elements of this sequence sorted according to their natural sort order.\n \* The sort is \_stable\_. It means that equal elements preserve their order relative to each other after sorting.\n \* The operation is \_intermediate\_ and \_stateful\_.\n \* \npublic fun <T : Comparable<T>> Sequence<T>.sorted(): Sequence<T> {\n return object : Sequence<T> {\n override fun iterator(): Iterator<T> {\n val sortedList = this@sorted.toList()\n sortedList.sort()\n return sortedList.iterator()\n }\n }\n}\n\n/\*\*\n \* Returns a sequence that yields elements of this sequence sorted according to natural sort order of the value returned by specified [selector] function.\n \* The sort is \_stable\_. It means that equal elements preserve their order relative to each other after sorting.\n \* The operation is \_intermediate\_ and \_stateful\_.\n \* @sample samples.collections.Collections.Sorting.sortedBy\n \* \npublic inline fun <T, R : Comparable<R>> Sequence<T>.sortedBy(crossinline selector: (T) -> R?): Sequence<T> {\n return sortedWith(compareBy(selector))\n}\n\n/\*\*\n \* Returns a sequence that yields elements of this sequence sorted

descending according

to natural sort order of the value returned by specified [selector] function.  
The sort is `_stable_`. It means that equal elements preserve their order relative to each other after sorting.  
The operation is `_intermediate_` and `_stateful_`.  
`public inline fun <T, R : Comparable<R>> Sequence<T>.sortedByDescending(crossinline selector: (T) -> R?): Sequence<T> {`  
    `return sortedWith(compareByDescending(selector))`  
}  
Returns a sequence that yields elements of this sequence sorted descending according to their natural sort order.  
The sort is `_stable_`. It means that equal elements preserve their order relative to each other after sorting.  
The operation is `_intermediate_` and `_stateful_`.  
`public fun <T : Comparable<T>> Sequence<T>.sortedDescending(): Sequence<T> {`  
    `return sortedWith(reverseOrder())`  
}  
Returns a sequence that yields elements of this sequence sorted according to the specified [comparator].  
The sort is `_stable_`. It means that equal elements preserve their order relative to each other after sorting.  
The operation is `_intermediate_` and `_stateful_`.  
`public fun <T> Sequence<T>.sortedWith(comparator: Comparator<in T>): Sequence<T> {`  
    `return object : Sequence<T> {`  
        `override fun iterator(): Iterator<T> {`  
            `val sortedList = this@sortedWith.toMutableList()`  
            `sortedList.sortWith(comparator)`  
            `return sortedList.iterator()`  
        `}`  
    }  
Returns a [Map] containing key-value pairs provided by [transform] function applied to elements of the given sequence.  
If any of two pairs would have the same key the last one gets added to the map.  
The returned map preserves the entry iteration order of the original sequence.  
The operation is `_terminal_`.  
`@sample samples.collections.Collections.Transformations.associate`  
`public inline fun <T, K, V> Sequence<T>.associate(transform: (T) -> Pair<K, V>): Map<K, V> {`  
    `return associateTo(LinkedHashMap<K, V>(), transform)`  
}  
Returns a [Map] containing the elements from the given sequence indexed by the key returned from [keySelector] function applied to each element.  
If any two elements would have the same key returned by [keySelector] the last one gets added to the map.  
The returned map preserves the entry iteration order of the original sequence.  
The operation is `_terminal_`.  
`@sample samples.collections.Collections.Transformations.associateBy`  
`public inline fun <T, K> Sequence<T>.associateBy(keySelector: (T) -> K): Map<K, T> {`  
    `return associateByTo(LinkedHashMap<K, T>(), keySelector)`  
}  
Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given sequence.  
If any two elements would have the same key returned by [keySelector] the last one gets added to the map.  
The returned map preserves the entry iteration order of the original sequence.  
The operation is `_terminal_`.  
`@sample samples.collections.Collections.Transformations.associateByWithValueTransform`  
`public inline fun <T, K, V> Sequence<T>.associateBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, V> {`  
    `return associateByTo(LinkedHashMap<K, V>(), keySelector, valueTransform)`  
}  
Populates and returns the [destination] mutable map with key-value pairs, where key is provided by the [keySelector] function applied to each element of the given sequence and value is the element itself.  
If any two elements would have the same key returned by [keySelector] the last one gets added to the map.  
The operation is `_terminal_`.  
`@sample samples.collections.Collections.Transformations.associateByTo`  
`public inline fun <T, K, M : MutableMap<in K, in T>> Sequence<T>.associateByTo(destination: M, keySelector: (T) -> K): M {`  
    `for (element in this) {`  
        `destination.put(keySelector(element), element)`  
    }  
    `return destination`  
}  
Populates and returns the [destination] mutable map with key-value pairs, where key is provided by the [keySelector] function and value is provided by the [valueTransform] function applied to elements of the given sequence.  
If any two elements would have the same key returned by [keySelector] the last one gets added to the map.  
The operation is `_terminal_`.  
`@sample samples.collections.Collections.Transformations.associateByToWithValueTransform`  
`public inline fun <T, K, V, M : MutableMap<in K, in V>> Sequence<T>.associateByTo(destination: M, keySelector: (T) -> K, valueTransform: (T) -> V): M {`  
    `for (element in this) {`  
        `destination.put(keySelector(element), valueTransform(element))`  
    }  
    `return destination`  
}  
Populates and returns the [destination] mutable map with key-value pairs provided by

[transform] function applied to each element of the given sequence.

If any of two pairs would have the same key the last one gets added to the map.

The operation is `_terminal_`.

@sample

```

samples.collections.Collections.Transformations.associateTo
*/\npublic inline fun <T, K, V, M : MutableMap<in K, in V>> Sequence<T>.associateTo(destination: M, transform: (T) -> Pair<K, V>): M {
  for (element in this) {
    destination += transform(element)
  }
  return destination
}

```

Returns a [Map] where keys are elements from the given sequence and values are produced by the [valueSelector] function applied to each element.

If any two elements are equal, the last one gets added to the map.

The returned map preserves the entry iteration order of the original sequence.

The operation is `_terminal_`.

@sample

```

samples.collections.Collections.Transformations.associateWith
*/\n@SinceKotlin("1.3")\npublic inline fun <K, V> Sequence<K>.associateWith(valueSelector: (K) -> V): Map<K, V> {
  val result = LinkedHashMap<K, V>()
  return associateWithTo(result, valueSelector)
}

```

Populates and returns the [destination] mutable map with key-value pairs for each element of the given sequence, where key is the element itself and value is provided by the [valueSelector] function applied to that key.

If any two elements are equal, the last one overwrites the former value in the map.

The operation is `_terminal_`.

@sample

```

samples.collections.Collections.Transformations.associateWithTo
*/\n@SinceKotlin("1.3")\npublic inline fun <K, V, M : MutableMap<in K, in V>> Sequence<K>.associateWithTo(destination: M, valueSelector: (K) -> V): M {
  for (element in this) {
    destination.put(element, valueSelector(element))
  }
  return destination
}

```

Appends all elements to the given [destination] collection.

The operation is `_terminal_`.

```

*/\npublic fun <T, C : MutableCollection<in T>> Sequence<T>.toCollection(destination: C): C {
  for (item in this) {
    destination.add(item)
  }
  return destination
}

```

Returns a new [HashSet] of all elements.

The operation is `_terminal_`.

```

*/\npublic fun <T> Sequence<T>.toHashSet(): HashSet<T> {
  return toCollection(HashSet<T>())
}

```

Returns a [List] containing all elements.

The operation is `_terminal_`.

```

*/\npublic fun <T> Sequence<T>.toList(): List<T> {
  return this.toMutableList().optimizeReadOnlyList()
}

```

Returns a new [MutableList] filled with all elements of this sequence.

The operation is `_terminal_`.

```

*/\npublic fun <T> Sequence<T>.toMutableList(): MutableList<T> {
  return toCollection(ArrayList<T>())
}

```

Returns a [Set] of all elements.

The returned set preserves the element iteration order of the original sequence.

The operation is `_terminal_`.

```

*/\npublic fun <T> Sequence<T>.toSet(): Set<T> {
  return toCollection(LinkedHashSet<T>()).optimizeReadOnlySet()
}

```

Returns a single sequence of all elements from results of [transform] function being invoked on each element of original sequence.

The operation is `_intermediate_` and `_stateless_`.

@sample

```

samples.collections.Collections.Transformations.flatMap
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIterable")\npublic fun <T, R> Sequence<T>.flatMap(transform: (T) -> Iterable<R>): Sequence<R> {
  return FlatteningSequence(this, transform, Iterable<R>::iterator)
}

```

Returns a single sequence of all elements from results of [transform] function being invoked on each element of original sequence.

The operation is `_intermediate_` and `_stateless_`.

@sample

```

samples.collections.Collections.Transformations.flatMap
*/\npublic fun <T, R> Sequence<T>.flatMap(transform: (T) -> Sequence<R>): Sequence<R> {
  return FlatteningSequence(this, transform, Sequence<R>::iterator)
}

```

Returns a single sequence of all elements yielded from results of [transform] function being invoked on each element and its index in the original sequence.

The operation is `_intermediate_` and `_stateless_`.

@sample

```

samples.collections.Collections.Transformations.flatMapIndexed
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedIterable")\npublic fun <T, R> Sequence<T>.flatMapIndexed(transform: (index: Int, T) -> Iterable<R>): Sequence<R> {
  return

```



```

flatMapIndexed(this, transform, Iterable<R>::iterator)\n\n/**\n * Returns a single sequence of all elements
yielded from results of [transform] function being invoked on each element\n * and its index in the original
sequence.\n *\n * The operation is _intermediate_
and _stateless_.\n *\n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedSequence")\npublic fun <T, R>
Sequence<T>.flatMapIndexed(transform: (index: Int, T) -> Sequence<R>): Sequence<R> {\n return
flatMapIndexed(this, transform, Sequence<R>::iterator)\n}\n\n/**\n * Appends all elements yielded from results of
[transform] function being invoked on each element\n * and its index in the original sequence, to the given
[destination].\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedIterableTo")\n@kotlin.internal.InlineOnly\npublic
inline fun <T, R, C : MutableCollection<in R>> Sequence<T>.flatMapIndexedTo(destination: C, transform:
(index:
Int, T) -> Iterable<R>): C {\n var index = 0\n for (element in this) {\n val list =
transform(checkIndexOverflow(index++), element)\n destination.addAll(list)\n }\n return
destination}\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each
element\n * and its index in the original sequence, to the given [destination].\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIndexedSequenceTo")\n@kotlin.internal.InlineOnly\npublic
inline fun <T, R, C : MutableCollection<in R>> Sequence<T>.flatMapIndexedTo(destination: C, transform:
(index: Int, T) -> Sequence<R>): C {\n var index = 0\n for (element in this) {\n val list =
transform(checkIndexOverflow(index++), element)\n destination.addAll(list)\n }\n return
destination}\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original sequence, to the given
[destination].\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("flatMapIterableTo")\npublic inline fun <T, R, C :
MutableCollection<in R>> Sequence<T>.flatMapTo(destination: C, transform: (T) -> Iterable<R>): C {\n for
(element in this) {\n val list = transform(element)\n destination.addAll(list)\n }\n return
destination}\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each
element of original sequence, to the given [destination].\n *\n * The operation is _terminal_.\n */\npublic inline fun
<T, R, C : MutableCollection<in R>> Sequence<T>.flatMapTo(destination: C, transform: (T) -> Sequence<R>): C
{\n for (element in this) {\n val list = transform(element)\n
destination.addAll(list)\n }\n return destination}\n}\n\n/**\n * Groups elements of the original sequence by
the key returned by the given [keySelector] function\n * applied to each element and returns a map where each
group key is associated with a list of corresponding elements.\n *\n * The returned map preserves the entry iteration
order of the keys produced from the original sequence.\n *\n * The operation is _terminal_.\n *\n * @sample
samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <T, K>
Sequence<T>.groupBy(keySelector: (T) -> K): Map<K, List<T>> {\n return groupByTo(LinkedHashMap<K,
MutableList<T>>(), keySelector)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to
each element of the original sequence\n * by the key returned by the given [keySelector] function applied to the
element\n * and returns a map where each group key is associated with a list of corresponding values.\n *\n * The
returned map preserves the entry iteration order of the keys produced from the original sequence.\n *\n * The operation is
_terminal_.\n *\n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n
*/\npublic inline fun <T, K, V> Sequence<T>.groupBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K,
List<V>> {\n return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector,

```

```

valueTransform)\n}\n\n/**\n * Groups elements of the original sequence by the key returned by the given
[keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with
a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * The operation is _terminal_.\n * \n
* @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <T, K, M :
MutableMap<in K, MutableList<T>>> Sequence<T>.groupByTo(destination: M, keySelector: (T) -> K): M {\n
for (element in this) {\n    val key = keySelector(element)\n
    val list = destination.getOrPut(key) { ArrayList<T>() }\n    list.add(element)\n } \n return
destination}\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the
original sequence\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to
the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The
[destination] map.\n * \n * The operation is _terminal_.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <T, K, V, M :
MutableMap<in K, MutableList<V>>> Sequence<T>.groupByTo(destination: M, keySelector: (T) -> K,
valueTransform: (T) -> V): M {\n    for (element in this) {\n        val key = keySelector(element)\n        val list =
destination.getOrPut(key) { ArrayList<V>() }\n        list.add(valueTransform(element))\n    } \n return
destination}\n}\n\n/**\n * Creates a [Grouping]
source from a sequence to be used later with one of group-and-fold operations\n * using the specified [keySelector]
function to extract a key from each element.\n * \n * The operation is _intermediate_ and _stateless_.\n * \n *
@sample samples.collections.Grouping.groupingByEachCount\n */\n@SinceKotlin("1.1")\npublic inline fun <T,
K> Sequence<T>.groupingBy(crossinline keySelector: (T) -> K): Grouping<T, K> {\n    return object :
Grouping<T, K> {\n        override fun sourceIterator(): Iterator<T> = this@groupingBy.iterator()\n        override fun
keyOf(element: T): K = keySelector(element)\n    } \n}\n\n/**\n * Returns a sequence containing the results of
applying the given [transform] function\n * to each element in the original sequence.\n * \n * The operation is
_intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\npublic
fun <T, R> Sequence<T>.map(transform: (T) -> R): Sequence<R> {\n    return TransformingSequence(this,
transform)\n}\n\n/**\n * Returns a sequence containing the results of applying the given [transform] function\n *
to each element and its index in the original sequence.\n * @param [transform] function that takes the index of an
element and the element itself\n * and returns the result of the transform applied to the element.\n * \n * The
operation is _intermediate_ and _stateless_.\n */\npublic fun <T, R> Sequence<T>.mapIndexed(transform: (index:
Int, T) -> R): Sequence<R> {\n    return TransformingIndexedSequence(this, transform)\n}\n\n/**\n * Returns a
sequence containing only the non-null results of applying the given [transform] function\n * to each element and its
index in the original sequence.\n * @param [transform] function that takes the index of an element and the element
itself\n * and returns the result of the transform applied to the element.\n * \n * The operation is _intermediate_
and _stateless_.\n */\npublic fun <T, R : Any> Sequence<T>.mapIndexedNotNull(transform: (index:
Int, T) -> R?): Sequence<R> {\n    return TransformingIndexedSequence(this,
transform).filterNotNull()\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the
original sequence\n * and appends only the non-null results to the given [destination].\n * @param [transform]
function that takes the index of an element and the element itself\n * and returns the result of the transform applied
to the element.\n * \n * The operation is _terminal_.\n */\npublic inline fun <T, R : Any, C : MutableCollection<in
R>> Sequence<T>.mapIndexedNotNullTo(destination: C, transform: (index: Int, T) -> R?): C {\n    forEachIndexed
{ index, element -> transform(index, element)?.let { destination.add(it) } }\n    return destination}\n}\n\n/**\n
* Applies the given [transform] function to each element and its index in the original sequence\n * and appends the
results to the given [destination].\n * @param [transform] function that takes the index of an element and the
element
itself\n * and returns the result of the transform applied to the element.\n * \n * The operation is _terminal_.\n
*/\npublic inline fun <T, R, C : MutableCollection<in R>> Sequence<T>.mapIndexedTo(destination: C, transform:
(index: Int, T) -> R): C {\n    var index = 0\n    for (item in this)\n        destination.add(transform(checkIndexOverflow(index++), item))\n    return destination}\n}\n\n/**\n * Returns a

```

sequence containing only the non-null results of applying the given [transform] function to each element in the original sequence.

`Sequence<T>.mapNotNull(transform: (T) -> R?): Sequence<R>` { \n return TransformingSequence(this, transform).filterNotNull()\n } \n \n \* Applies the given [transform] function to each element in the original sequence and appends only the non-null results to the given [destination].

`Sequence<T>.mapNotNullTo(destination: C, transform: (T) -> R?): C` { \n forEach { element -> transform(element)?.let { destination.add(it) } } \n return destination \n } \n \n \* Applies the given [transform] function to each element of the original sequence and appends the results to the given [destination].

`Sequence<T>.mapTo(destination: C, transform: (T) -> R): C` { \n for (item in this) \n destination.add(transform(item)) \n return destination \n } \n \n \* Returns a sequence that wraps each element of the original sequence into an [IndexedValue] containing the index of that element and the element itself.

`Sequence<T>.withIndex(): Sequence<IndexedValue<T>>` { \n return IndexingSequence(this) \n } \n \n \* Returns a sequence containing only distinct elements from the given sequence. Among equal elements of the given sequence, only the first one will be present in the resulting sequence. The elements in the resulting sequence are in the same order as they were in the source sequence.

`Sequence<T>.distinct(): Sequence<T>` { \n return this.distinctBy { it } \n } \n \n \* Returns a sequence containing only elements from the given sequence having distinct keys returned by the given [selector] function. Among elements of the given sequence with equal keys, only the first one will be present in the resulting sequence. The elements in the resulting sequence are in the same order as they were in the source sequence.

`Sequence<T>.distinctBy(selector: (T) -> K): Sequence<T>` { \n return DistinctSequence(this, selector) \n } \n \n \* Returns a new [MutableSet] containing all distinct elements from the given sequence. The returned set preserves the element iteration order of the original sequence.

`Sequence<T>.toMutableSet(): MutableSet<T>` { \n val set = LinkedHashSet<T>() \n for (item in this) set.add(item) \n return set \n } \n \n \* Returns `true` if all elements match the given [predicate]. Note that if the sequence contains no elements, the function returns `true` because there are no elements in it that do not match the predicate. See a more detailed explanation of this logic concept in [Vacuous truth](https://en.wikipedia.org/wiki/Vacuous\_truth) article.

`Sequence<T>.all(predicate: (T) -> Boolean): Boolean` { \n for (element in this) if (!predicate(element)) return false \n return true \n } \n \n \* Returns `true` if sequence has at least one element.

`Sequence<T>.any(): Boolean` { \n return iterator().hasNext() \n } \n \n \* Returns `true` if at least one element matches the given [predicate].

`Sequence<T>.any(predicate: (T) -> Boolean): Boolean` { \n for (element in this) if (predicate(element)) return true \n return false \n } \n \n \* Returns the number of elements in this sequence.

`Sequence<T>.count(): Int` { \n var count = 0 \n for (element in this) checkCountOverflow(++count) \n return count \n } \n \n \* Returns the number of elements matching the given [predicate].

`Sequence<T>.count(predicate: (T) -> Boolean): Int` { \n var count = 0 \n for (element in this) if (predicate(element)) checkCountOverflow(++count) \n return count \n } \n \n \* Accumulates value starting with [initial] value and applying [operation] from left to right to current accumulator value and each element.

Returns the specified [initial] value if the sequence is empty.

```

 * \n * @param [operation] function that takes current
 accumulator value and an element, and calculates the next accumulator value.
 * \n * The operation is _terminal_
 * \n public inline fun <T, R> Sequence<T>.fold(initial: R, operation: (acc: R, T) -> R): R {
 \n   var accumulator =
 initial
 \n   for (element in this) accumulator = operation(accumulator, element)
 \n   return accumulator
 }
 * \n * Accumulates value starting with [initial] value and applying [operation] from left to right
 * to current
 accumulator value and each element with its index in the original sequence.
 * \n * Returns the specified [initial]
 value if the sequence is empty.
 * \n * @param [operation] function that takes the index of an element, current
 accumulator value
 * and the element itself, and calculates the next accumulator value.
 * \n * The operation is
 _terminal_
 * \n public inline fun <T, R> Sequence<T>.foldIndexed(initial: R, operation: (index: Int, acc: R, T) ->
 R): R {
 \n   var index = 0
 \n   var accumulator = initial
 \n   for (element in this) accumulator =
 operation(checkIndexOverflow(index++), accumulator, element)
 \n   return accumulator
 }
 * \n * Performs the
 given [action] on each element.
 * \n * The operation is _terminal_
 * \n public inline fun <T>
 Sequence<T>.forEach(action: (T) -> Unit): Unit {
 \n   for (element in this) action(element)
 }
 * \n * Performs
 the given [action] on each element, providing sequential index with the element.
 * \n * @param [action] function that
 takes the index of an element and the element itself
 * and performs the action on the element.
 * \n * The
 operation is _terminal_
 * \n public inline fun <T> Sequence<T>.forEachIndexed(action: (index: Int, T) -> Unit):
 Unit {
 \n   var index = 0
 \n   for (item in this) action(checkIndexOverflow(index++), item)
 }
 * \n * Returns the
 largest element.
 * \n * If any of elements is `NaN` returns `NaN`.
 * \n * The operation is _terminal_
 * \n *
 @throws NoSuchElementException if the sequence is empty.
 * \n
 * \n @SinceKotlin("1.7")
 \n @kotlin.jvm.JvmName("maxOrThrow")
 \n @Suppress("CONFLICTING_OVERLOA
 DS")
 \n public fun Sequence<Double>.max(): Double {
 \n   val iterator = iterator()
 \n   if (!iterator.hasNext()) throw
 NoSuchElementException()
 \n   var max = iterator.next()
 \n   while (iterator.hasNext()) {
 \n     val e =
 iterator.next()
 \n     max = maxOf(max, e)
 \n   }
 \n   return max
 }
 * \n * Returns the largest element.
 * \n * If any of elements is `NaN` returns `NaN`.
 * \n
 * \n * The operation is _terminal_
 * \n * @throws NoSuchElementException if the sequence is empty.
 * \n
 * \n @SinceKotlin("1.7")
 \n @kotlin.jvm.JvmName("maxOrThrow")
 \n @Suppress("CONFLICTING_OVERLOA
 DS")
 \n public fun Sequence<Float>.max(): Float {
 \n   val iterator = iterator()
 \n   if (!iterator.hasNext()) throw
 NoSuchElementException()
 \n   var max = iterator.next()
 \n   while (iterator.hasNext()) {
 \n     val e =
 iterator.next()
 \n     max = maxOf(max, e)
 \n   }
 \n   return max
 }
 * \n * Returns the largest element.
 * \n *
 * \n * The operation is _terminal_
 * \n * @throws NoSuchElementException if the sequence is empty.
 * \n
 * \n @SinceKotlin("1.7")
 \n @kotlin.jvm.JvmName("maxOrThrow")
 \n @Suppress("CONFLICTING_OVERLOA
 DS")
 \n public fun <T : Comparable<T>> Sequence<T>.max(): T {
 \n   val iterator = iterator()
 \n   if
 (!iterator.hasNext()) throw NoSuchElementException()
 \n   var max = iterator.next()
 \n   while (iterator.hasNext()) {
 \n     val e = iterator.next()
 \n     if (max < e) max = e
 \n   }
 \n   return max
 }
 * \n * Returns the first element yielding the largest value of the given function.
 * \n *
 * \n * The operation is _terminal_
 * \n * @throws NoSuchElementException if the sequence is empty.
 * \n
 * \n *
 @sample samples.collections.Collections.Aggregates.maxBy
 * \n
 * \n @SinceKotlin("1.7")
 \n @kotlin.jvm.JvmName("maxByOrNull")
 \n @Suppress("CONFLICTING_OVERL
 OADS")
 \n public inline fun <T, R : Comparable<R>> Sequence<T>.maxBy(selector: (T) -> R): T {
 \n   val iterator
 = iterator()
 \n   if (!iterator.hasNext()) throw NoSuchElementException()
 \n   var maxElem = iterator.next()
 \n   if
 (!iterator.hasNext()) return maxElem
 \n   var maxValue = selector(maxElem)
 \n   do {
 \n     val e = iterator.next()
 \n     val v = selector(e)
 \n     if (maxValue < v) {
 \n       maxElem = e
 \n       maxValue = v
 \n     }
 \n   } while
 (iterator.hasNext())
 \n   return maxElem
 }
 * \n * Returns the first element yielding the largest value of the given function or `null` if
 there are no elements.
 * \n * The operation is _terminal_
 * \n *
 @sample
 samples.collections.Collections.Aggregates.maxByOrNull
 * \n
 * \n @SinceKotlin("1.4")
 \n public inline fun <T, R :
 Comparable<R>> Sequence<T>.maxByOrNull(selector: (T) -> R): T? {
 \n   val iterator = iterator()
 \n   if
 (!iterator.hasNext()) return null
 \n   var maxElem = iterator.next()
 \n   if (!iterator.hasNext()) return maxElem
 \n   var

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maxValue = selector(maxElem)\n do {\n     val e = iterator.next()\n     val v = selector(e)\n     if (maxValue <
v) {\n         maxElem = e\n         maxValue = v\n     }\n } while (iterator.hasNext())\n return
maxElem\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to
each element in the sequence.\n * \n * If any of values produced by [selector] function is `NaN`, the returned
result is `NaN`.\n *\n * The operation is _terminal_.\n *\n * @throws NoSuchElementException if the sequence is
empty.\n

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*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.maxOf(selector: (T) ->
Double): Double {\n     val iterator = iterator()\n     if (!iterator.hasNext()) throw NoSuchElementException()\n     var
maxValue = selector(iterator.next())\n     while (iterator.hasNext()) {\n         val v = selector(iterator.next())\n
maxValue = maxOf(maxValue, v)\n     }\n     return maxValue\n}\n\n/**\n * Returns the largest value among all
values produced by [selector] function\n * applied to each element in the sequence.\n * \n * If any of values
produced by [selector] function is `NaN`, the returned result is `NaN`.\n *\n * The operation is _terminal_.\n *\n *
@throws NoSuchElementException if the sequence is empty.\n

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*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <T> Sequence<T>.maxOf(selector: (T) -> Float): Float {\n     val iterator = iterator()\n     if
(!iterator.hasNext()) throw NoSuchElementException()\n     var maxValue = selector(iterator.next())\n     while
(iterator.hasNext()) {\n         val v = selector(iterator.next())\n         maxValue = maxOf(maxValue, v)\n     }\n
return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to
each element in the sequence.\n * \n * The operation is _terminal_.\n *\n * @throws NoSuchElementException if
the sequence is empty.\n

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*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>>
Sequence<T>.maxOf(selector: (T) -> R): R {\n     val iterator = iterator()\n
if (!iterator.hasNext()) throw NoSuchElementException()\n     var maxValue = selector(iterator.next())\n     while
(iterator.hasNext()) {\n         val v = selector(iterator.next())\n         if (maxValue < v) {\n             maxValue = v\n
}\n     }\n     return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector]
function\n * applied to each element in the sequence or `null` if there are no elements.\n * \n * If any of values
produced by [selector] function is `NaN`, the returned result is `NaN`.\n *\n * The operation is _terminal_.\n

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*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.maxOfOrNull(selector:
(T) -> Double): Double? {\n     val iterator = iterator()\n     if (!iterator.hasNext()) return null\n     var
maxValue = selector(iterator.next())\n     while (iterator.hasNext()) {\n         val v = selector(iterator.next())\n
maxValue = maxOf(maxValue, v)\n     }\n     return maxValue\n}\n\n/**\n * Returns the largest value among all
values produced by [selector] function\n * applied to each element in the sequence or `null` if there are no
elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n *\n * The
operation is _terminal_.\n

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*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.maxOfOrNull(selector:
(T) -> Float): Float? {\n     val iterator = iterator()\n     if (!iterator.hasNext()) return null\n     var
maxValue = selector(iterator.next())\n     while (iterator.hasNext()) {\n         val v = selector(iterator.next())\n
maxValue = maxOf(maxValue, v)\n     }\n     return maxValue\n}\n\n/**\n * Returns the largest value among all
values produced by [selector] function\n * applied to each
element in the sequence or `null` if there are no elements.\n *\n * The operation is _terminal_.\n

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*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>>
Sequence<T>.maxOfOrNull(selector: (T) -> R): R? {\n     val iterator = iterator()\n     if (!iterator.hasNext()) return

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null\n  var maxValue = selector(iterator.next())\n  while (iterator.hasNext()) {\n    val v =
selector(iterator.next())\n    if (maxValue < v) {\n      maxValue = v\n    }\n  }\n  return
maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values
produced by [selector] function applied to each element in the sequence.\n * \n * @throws
NoSuchElementException if the sequence is empty.\n * \n * The operation is _terminal_.\n
*\n*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <T, R> Sequence<T>.maxOfWith(comparator: Comparator<in R>, selector: (T) -> R): R {\n  val
iterator = iterator()\n  if (!iterator.hasNext()) throw NoSuchElementException()\n  var maxValue =
selector(iterator.next())\n  while (iterator.hasNext()) {\n    val v = selector(iterator.next())\n    if
(comparator.compare(maxValue, v) < 0) {\n      maxValue = v\n    }\n  }\n  return maxValue\n}\n\n/**\n *
Returns the largest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the sequence or `null` if there are no elements.\n * \n * The operation is
_terminal_.\n
*\n*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R>
Sequence<T>.maxOfWithOrNull(comparator: Comparator<in R>, selector:
(T) -> R): R? {\n  val iterator = iterator()\n  if (!iterator.hasNext()) return null\n  var maxValue =
selector(iterator.next())\n  while (iterator.hasNext()) {\n    val v = selector(iterator.next())\n    if
(comparator.compare(maxValue, v) < 0) {\n      maxValue = v\n    }\n  }\n  return maxValue\n}\n\n/**\n *
Returns the largest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n
*\n * The operation is _terminal_.\n
*\n*\n@SinceKotlin("1.4")\npublic fun Sequence<Double>.maxOrNull():
Double? {\n  val iterator = iterator()\n  if (!iterator.hasNext()) return null\n  var max = iterator.next()\n  while
(iterator.hasNext()) {\n    val e = iterator.next()\n    max = maxOf(max, e)\n  }\n  return max\n}\n\n/**\n *
Returns the largest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n
*\n * The operation is _terminal_.\n
*\n*\n@SinceKotlin("1.4")\npublic
fun Sequence<Float>.maxOrNull(): Float? {\n  val iterator = iterator()\n  if (!iterator.hasNext()) return null\n
var max = iterator.next()\n  while (iterator.hasNext()) {\n    val e = iterator.next()\n    max = maxOf(max, e)\n
}\n  return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n * \n * The operation
is _terminal_.\n
*\n*\n@SinceKotlin("1.4")\npublic fun <T : Comparable<T>> Sequence<T>.maxOrNull(): T? {\n
val iterator = iterator()\n  if (!iterator.hasNext()) return null\n  var max = iterator.next()\n  while
(iterator.hasNext()) {\n    val e = iterator.next()\n    if (max < e) max = e\n  }\n  return max\n}\n\n/**\n *
Returns the first element having the largest value according to the provided [comparator].\n * \n * The operation is
_terminal_.\n * \n * @throws NoSuchElementException if the sequence is empty.\n
*\n*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxWithOrThrow")\n@Suppress("CONFLICTING_OVER
LOADS")\npublic
fun <T> Sequence<T>.maxWith(comparator: Comparator<in T>): T {\n  val iterator = iterator()\n  if
(!iterator.hasNext()) throw NoSuchElementException()\n  var max = iterator.next()\n  while (iterator.hasNext())
{\n    val e = iterator.next()\n    if (comparator.compare(max, e) < 0) max = e\n  }\n  return max\n}\n\n/**\n *
Returns the first element having the largest value according to the provided [comparator] or `null` if there are no
elements.\n * \n * The operation is _terminal_.\n
*\n*\n@SinceKotlin("1.4")\npublic fun <T>
Sequence<T>.maxWithOrNull(comparator: Comparator<in T>): T? {\n  val iterator = iterator()\n  if
(!iterator.hasNext()) return null\n  var max = iterator.next()\n  while (iterator.hasNext()) {\n    val e =
iterator.next()\n    if (comparator.compare(max, e) < 0) max = e\n  }\n  return max\n}\n\n/**\n * Returns the
smallest element.\n * \n * If any of elements is `NaN` returns `NaN`.\n * \n * The operation
is _terminal_.\n * \n * @throws NoSuchElementException if the sequence is empty.\n
*\n*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minOrThrow")\n@Suppress("CONFLICTING_OVERLOA
DS")\npublic fun Sequence<Double>.min(): Double {\n  val iterator = iterator()\n  if (!iterator.hasNext()) throw

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NoSuchElementException()\n    var min = iterator.next()\n    while (iterator.hasNext()) {\n        val e =
iterator.next()\n        min = minOf(min, e)\n    }\n    return min\n}\n\n/**\n * Returns the smallest element.\n * \n * If
any of elements is `NaN` returns `NaN`.\n * \n * The operation is _terminal_.\n * \n * @throws
NoSuchElementException if the sequence is empty.\n
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minOrThrow")\n@Suppress("CONFLICTING_OVERLOA
DS")\npublic fun Sequence<Float>.min(): Float {\n    val iterator = iterator()\n    if (!iterator.hasNext()) throw
NoSuchElementException()\n    var min = iterator.next()\n    while (iterator.hasNext()) {\n        val e =
iterator.next()\n
        min = minOf(min, e)\n    }\n    return min\n}\n\n/**\n * Returns the smallest element.\n * \n * The operation is
_terminal_.\n * \n * @throws NoSuchElementException if the sequence is empty.\n
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minOrThrow")\n@Suppress("CONFLICTING_OVERLOA
DS")\npublic fun <T : Comparable<T>> Sequence<T>.min(): T {\n    val iterator = iterator()\n    if
(!iterator.hasNext()) throw NoSuchElementException()\n    var min = iterator.next()\n    while (iterator.hasNext())
{\n        val e = iterator.next()\n        if (min > e) min = e\n    }\n    return min\n}\n\n/**\n * Returns the first element
yielding the smallest value of the given function.\n * \n * The operation is _terminal_.\n * \n * @throws
NoSuchElementException if the sequence is empty.\n * \n * @sample
samples.collections.Collections.Aggregates.minBy\n
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minByOrThrow")\n@Suppress("CONFLICTING_OVERLO
ADS")\npublic inline fun <T, R :
Comparable<R>> Sequence<T>.minBy(selector: (T) -> R): T {\n    val iterator = iterator()\n    if
(!iterator.hasNext()) throw NoSuchElementException()\n    var minElem = iterator.next()\n    if (!iterator.hasNext())
return minElem\n    var minValue = selector(minElem)\n    do {\n        val e = iterator.next()\n        val v =
selector(e)\n        if (minValue > v) {\n            minElem = e\n            minValue = v\n        }\n    } while
(iterator.hasNext())\n    return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the
given function or `null` if there are no elements.\n * \n * The operation is _terminal_.\n * \n * @sample
samples.collections.Collections.Aggregates.minByOrNull\n
*\n@SinceKotlin("1.4")\npublic inline fun <T, R :
Comparable<R>> Sequence<T>.minByOrNull(selector: (T) -> R): T? {\n    val iterator = iterator()\n    if
(!iterator.hasNext()) return null\n    var minElem = iterator.next()\n    if (!iterator.hasNext()) return minElem\n    var
minValue = selector(minElem)\n    do {\n        val e = iterator.next()\n        val v = selector(e)\n        if (minValue >
v) {\n            minElem = e\n            minValue = v\n        }\n    } while (iterator.hasNext())\n    return
minElem\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the sequence.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result
is `NaN`.\n * \n * The operation is _terminal_.\n * \n * @throws NoSuchElementException if the sequence is
empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.minOf(selector: (T) ->
Double): Double {\n    val iterator = iterator()\n    if (!iterator.hasNext()) throw NoSuchElementException()\n    var
minValue = selector(iterator.next())\n    while (iterator.hasNext()) {\n        val
v = selector(iterator.next())\n        minValue = minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns
the smallest value among all values produced by [selector] function\n * applied to each element in the sequence.\n *
\n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * The operation is
_terminal_.\n * \n * @throws NoSuchElementException if the sequence is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.minOf(selector: (T) ->
Float): Float {\n    val iterator = iterator()\n    if (!iterator.hasNext()) throw NoSuchElementException()\n    var
minValue = selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v = selector(iterator.next())\n
minValue = minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all

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values produced by [selector] function\n \* applied to each element in the sequence.\n \*\n \* The operation is \_terminal\_.\n \*\n \* @throws NoSuchElementException if the sequence is empty.\n

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*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>>
Sequence<T>.minOf(selector: (T) -> R): R {\n    val iterator = iterator()\n    if (!iterator.hasNext()) throw
NoSuchElementException()\n    var minValue = selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v
= selector(iterator.next())\n        if (minValue > v) {\n            minValue = v\n        }\n    }\n    return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the sequence or `null` if there are no elements.\n * \n * If any of values produced by [selector]
function is `NaN`, the returned result is
`NaN`.\n *\n * The operation is _terminal_.\n

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*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.minOrNull(selector:
(T) -> Double): Double? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var
minValue = selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v = selector(iterator.next())\n
minValue =
minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the sequence or `null` if there are no elements.\n * \n * If
any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n *\n * The operation is
_terminal_.\n

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*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <T> Sequence<T>.minOrNull(selector: (T) -> Float): Float? {\n    val iterator = iterator()\n    if
(!iterator.hasNext()) return null\n    var minValue = selector(iterator.next())\n    while (iterator.hasNext()) {\n
val v = selector(iterator.next())\n    minValue = minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n *
Returns the smallest value among all values produced by [selector] function\n * applied to each element in the
sequence or `null` if there are no elements.\n *\n * The operation is _terminal_.\n

```

```

*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>>
Sequence<T>.minOrNull(selector: (T) -> R): R? {\n    val iterator = iterator()\n    if (!iterator.hasNext())
return
null\n    var minValue = selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v =
selector(iterator.next())\n        if (minValue > v) {\n            minValue = v\n        }\n    }\n    return
minValue\n}\n\n/**\n * Returns the
smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied
to each element in the sequence.\n * \n * @throws NoSuchElementException if the sequence is empty.\n *\n * The
operation is _terminal_.\n

```

```

*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R>
Sequence<T>.minOfWith(comparator: Comparator<in R>, selector: (T) -> R): R {\n    val iterator = iterator()\n
if
(!iterator.hasNext()) throw NoSuchElementException()\n    var minValue = selector(iterator.next())\n    while
(iterator.hasNext()) {\n        val v = selector(iterator.next())\n        if (comparator.compare(minValue, v) >
0) {\n            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest
value according to the provided [comparator]\n * among all values produced by [selector] function applied to each
element in the sequence or `null` if there are no elements.\n *\n * The operation is _terminal_.\n

```

```

*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R>
Sequence<T>.minOfWithOrNull(comparator: Comparator<in R>, selector: (T) -> R): R? {\n    val iterator =
iterator()\n    if (!iterator.hasNext()) return null\n    var minValue = selector(iterator.next())\n    while
(iterator.hasNext()) {\n        val v = selector(iterator.next())\n        if (comparator.compare(minValue, v) >
0) {\n            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest element
or `null` if there are

```



no elements.\n \* \n \* If any of elements is `NaN` returns `NaN`.\n \* \n \* The operation is `_terminal_`.\n

```

*\n@SinceKotlin("1.4")\npublic
fun Sequence<Double>.minOrNull(): Double? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var min = iterator.next()\n    while (iterator.hasNext()) {\n        val e = iterator.next()\n        min = minOf(min, e)\n    }\n    return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of
elements is `NaN` returns `NaN`.\n * \n * The operation is _terminal_.\n *\n@SinceKotlin("1.4")\npublic fun
Sequence<Float>.minOrNull(): Float? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var
min = iterator.next()\n    while (iterator.hasNext()) {\n        val e = iterator.next()\n        min = minOf(min, e)\n    }\n
return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * The operation is
_terminal_.\n *\n@SinceKotlin("1.4")\npublic fun <T : Comparable<T>> Sequence<T>.minOrNull(): T? {\n
val iterator = iterator()\n    if (!iterator.hasNext())
return null\n    var min = iterator.next()\n    while (iterator.hasNext()) {\n        val e = iterator.next()\n        if (min >
e) min = e\n    }\n    return min\n}\n\n/**\n * Returns the first element having the smallest value according to the
provided [comparator].\n * \n * The operation is _terminal_.\n * \n * @throws NoSuchElementException if the
sequence is empty.\n
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minWithOrThrow")\n@Suppress("CONFLICTING_OVERLOADS")\npublic fun <T> Sequence<T>.minWith(comparator: Comparator<in T>): T {\n    val iterator =
iterator()\n    if (!iterator.hasNext()) throw NoSuchElementException()\n    var min = iterator.next()\n    while
(iterator.hasNext()) {\n        val e = iterator.next()\n        if (comparator.compare(min, e) > 0) min = e\n    }\n    return
min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or
`null` if there are no elements.\n * \n * The operation is _terminal_.\n
*\n@SinceKotlin("1.4")\npublic fun <T> Sequence<T>.minWithOrNull(comparator: Comparator<in T>): T? {\n
val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var min = iterator.next()\n    while
(iterator.hasNext()) {\n        val e = iterator.next()\n        if (comparator.compare(min, e) > 0) min = e\n    }\n    return
min\n}\n\n/**\n * Returns `true` if the sequence has no elements.\n * \n * The operation is _terminal_.\n * \n *
@sample samples.collections.Collections.Aggregates.none\n *\npublic fun <T> Sequence<T>.none(): Boolean {\n
return !iterator().hasNext()\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * The
operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n
*\npublic inline fun <T> Sequence<T>.none(predicate: (T) -> Boolean): Boolean {\n    for (element in this) if
(predicate(element)) return false\n    return true\n}\n\n/**\n * Returns a sequence which performs
the given [action] on each element of the original sequence as they pass through it.\n * \n * The operation is
_intermediate_ and _stateless_.\n *\n@SinceKotlin("1.1")\npublic fun <T> Sequence<T>.onEach(action: (T) ->
Unit): Sequence<T> {\n    return map {\n        action(it)\n        it\n    }\n}\n\n/**\n * Returns a sequence which
performs the given [action] on each element of the original sequence as they pass through it.\n * \n * @param [action]
function that takes the index of an element and the element itself\n * and performs the action on the element.\n * \n *
The operation is _intermediate_ and _stateless_.\n *\n@SinceKotlin("1.4")\npublic fun <T>
Sequence<T>.onEachIndexed(action: (index: Int, T) -> Unit): Sequence<T> {\n    return mapIndexed { index,
element ->\n        action(index, element)\n        element\n    }\n}\n\n/**\n * Accumulates value starting with the first
element and applying [operation] from left to right\n * to current accumulator value and each element.\n
*\n * Throws an exception if this sequence is empty. If the sequence can be empty in an expected way,\n * please
use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that
takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * The
operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n *\npublic inline fun
<S, T : S> Sequence<T>.reduce(operation: (acc: S, T) -> S): S {\n    val iterator = this.iterator()\n    if
(!iterator.hasNext()) throw UnsupportedOperationException("Empty sequence can't be reduced.")\n    var
accumulator: S = iterator.next()\n    while (iterator.hasNext()) {\n        accumulator = operation(accumulator,
iterator.next())\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and
applying [operation] from left to right\n * to current accumulator value and each element with its index

```

in the original sequence.  
 \* Throws an exception if this sequence is empty. If the sequence can be empty in an expected way,  
 \* please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.  
 \* @param [operation] function that takes the index of an element, current accumulator value and the element itself,  
 \* and calculates the next accumulator value.  
 \* The operation is `_terminal_`.  
 \* @sample

```
samples.collections.Collections.Aggregates.reduce
```

```
public inline fun <S, T : S>
Sequence<T>.reduceIndexed(operation: (index: Int, acc: S, T) -> S): S {
    val iterator = this.iterator()
    if (!iterator.hasNext()) throw UnsupportedOperationException("Empty sequence can't be reduced.")
    var index = 1
    var accumulator: S = iterator.next()
    while (iterator.hasNext()) {
        accumulator =
            operation(checkIndexOverflow(index++), accumulator, iterator.next())
    }
    return accumulator
}
```

Accumulates value starting

with the first element and applying [operation] from left to right  
 \* to current accumulator value and each element  
 with its index in the original sequence.  
 \* Returns `null` if the sequence is empty.  
 \* @param [operation]  
 function that takes the index of an element, current accumulator value and the element itself,  
 \* and calculates the  
 next accumulator value.  
 \* The operation is `_terminal_`.  
 \* @sample

```
samples.collections.Collections.Aggregates.reduceOrNull
```

```
public inline fun <S, T : S>
Sequence<T>.reduceIndexedOrNull(operation: (index: Int, acc: S, T) -> S): S? {
    val iterator = this.iterator()
    if (!iterator.hasNext()) return null
    var index = 1
    var accumulator: S = iterator.next()
    while (iterator.hasNext()) {
        accumulator = operation(checkIndexOverflow(index++), accumulator, iterator.next())
    }
    return accumulator
}
```

Accumulates value starting with the first element and applying

[operation] from left to right  
 \* to current accumulator value and each element.  
 \* Returns `null` if the  
 sequence is empty.  
 \* @param [operation] function that takes current accumulator value and an element,  
 \* and calculates the next accumulator value.  
 \* The operation is `_terminal_`.  
 \* @sample

```
samples.collections.Collections.Aggregates.reduceOrNull
```

```
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <S, T : S>
```

```
Sequence<T>.reduceOrNull(operation: (acc: S, T) -> S): S? {
    val iterator = this.iterator()
    if (!iterator.hasNext()) return null
    var accumulator: S = iterator.next()
    while (iterator.hasNext()) {
        accumulator = operation(accumulator, iterator.next())
    }
    return accumulator
}
```

Returns a sequence  
 containing successive accumulation values generated by applying [operation] from left to right  
 \* to each element  
 and current accumulator value that starts with [initial] value.

\* Note that `acc` value passed to [operation] function should not be mutated;  
 \* otherwise it would affect the  
 previous value in resulting sequence.  
 \* The [initial] value should also be immutable (or should not be mutated)  
 \* as it may be passed to [operation] function later because of sequence's lazy nature.  
 \* @param [operation]  
 function that takes current accumulator value and an element, and calculates the next accumulator value.  
 \* The  
 operation is `_intermediate_` and `_stateless_`.  
 \* @sample

```
samples.collections.Collections.Aggregates.runningFold
```

```
public fun <T, R>
Sequence<T>.runningFold(initial: R, operation: (acc: R, T) -> R): Sequence<R> {
    return sequence {
        yield(initial)
        var accumulator = initial
        for (element in this@runningFold) {
            accumulator =
                operation(accumulator, element)
            yield(accumulator)
        }
    }
}
```

Returns a sequence  
 containing successive

accumulation values generated by applying [operation] from left to right  
 \* to each element, its index in the  
 original sequence and current accumulator value that starts with [initial] value.  
 \* Note that `acc` value passed  
 to [operation] function should not be mutated;  
 \* otherwise it would affect the previous value in resulting  
 sequence.  
 \* The [initial] value should also be immutable (or should not be mutated)  
 \* as it may be passed to  
 [operation] function later because of sequence's lazy nature.  
 \* @param [operation] function that takes the  
 index of an element, current accumulator value  
 \* and the element itself, and calculates the next accumulator  
 value.  
 \* The operation is `_intermediate_` and `_stateless_`.  
 \* @sample

```
samples.collections.Collections.Aggregates.runningFold
```

```
public fun <T, R>
Sequence<T>.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): Sequence<R> {
    return
```

```

sequence {
    yield(initial)
    var index = 0
    var accumulator = initial
    for (element in this@runningFoldIndexed)
    {
        accumulator = operation(checkIndexOverflow(index++), accumulator, element)
    }
}

Returns a sequence containing successive accumulation values
generated by applying [operation] from left to right to each element and current accumulator value that starts
with the first element of this sequence. Note that `acc` value passed to [operation] function should not be
mutated; otherwise it would affect the previous value in resulting sequence. @param [operation]
function that takes current accumulator value and the element, and calculates the next accumulator value.
The operation is _intermediate_ and _stateless_. @sample
samples.collections.Collections.Aggregates.runningReduce

@SinceKotlin("1.4")@WasExperimental(ExperimentalStdlibApi::class)public
fun <S, T : S> Sequence<T>.runningReduce(operation: (acc: S, T) -> S): Sequence<S> {
    return sequence {
        val iterator = iterator()
        if (iterator.hasNext()) {
            var accumulator: S = iterator.next()
            yield(accumulator)
            while (iterator.hasNext()) {
                accumulator = operation(accumulator,
                iterator.next())
                yield(accumulator)
            }
        }
    }
}

Returns a sequence containing
successive accumulation values generated by applying [operation] from left to right to each element, its index in
the original sequence and current accumulator value that starts with the first element of this sequence. Note
that `acc` value passed to [operation] function should not be mutated; otherwise it would affect the previous
value in resulting sequence. @param [operation] function that takes the index of an element, current
accumulator value and the element itself, and calculates
the next accumulator value. The operation is _intermediate_ and _stateless_. @sample
samples.collections.Collections.Aggregates.runningReduce

@SinceKotlin("1.4")@WasExperimental(ExperimentalStdlibApi::class)public fun <S, T : S>
Sequence<T>.runningReduceIndexed(operation: (index: Int, acc: S, T) -> S): Sequence<S> {
    return sequence {
        val iterator = iterator()
        if (iterator.hasNext()) {
            var accumulator: S = iterator.next()
            yield(accumulator)
            var index = 1
            while (iterator.hasNext()) {
                accumulator =
                operation(checkIndexOverflow(index++), accumulator, iterator.next())
                yield(accumulator)
            }
        }
    }
}

Returns a sequence containing successive accumulation values generated by applying
[operation] from left to right to each element and current accumulator value that starts with [initial] value.
Note that `acc` value passed to [operation] function should
not be mutated; otherwise it would affect the previous value in resulting sequence. The [initial] value should
also be immutable (or should not be mutated) as it may be passed to [operation] function later because of
sequence's lazy nature. @param [operation] function that takes current accumulator value and an element,
and calculates the next accumulator value. The operation is _intermediate_ and _stateless_. @sample
samples.collections.Collections.Aggregates.scan

@SinceKotlin("1.4")@WasExperimental(ExperimentalStdlibApi::class)public fun <T, R>
Sequence<T>.scan(initial: R, operation: (acc: R, T) -> R): Sequence<R> {
    return runningFold(initial,
    operation)
}

Returns a sequence containing successive accumulation values generated by applying
[operation] from left to right to each element, its index in the original sequence and current accumulator value
that starts with [initial] value. Note that `acc` value
passed to [operation] function should not be mutated; otherwise it would affect the previous value in resulting
sequence. The [initial] value should also be immutable (or should not be mutated) as it may be passed to
[operation] function later because of sequence's lazy nature. @param [operation] function that takes the
index of an element, current accumulator value and the element itself, and calculates the next accumulator
value. The operation is _intermediate_ and _stateless_. @sample
samples.collections.Collections.Aggregates.scan

@SinceKotlin("1.4")@WasExperimental(ExperimentalStdlibApi::class)public fun <T, R>
Sequence<T>.scanIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): Sequence<R> {
    return
    runningFoldIndexed(initial, operation)
}

Returns the sum of all values produced by [selector] function

```

applied to each element in the sequence. \n \* \n \* The operation is \_terminal\_. \n \* \n @Deprecated("Use sumOf instead.", ReplaceWith("this.sumOf(selector)")) \n @DeprecatedSinceKotlin(warningSince = "1.5") \n public inline fun <T> Sequence<T>.sumBy(selector: (T) -> Int): Int { \n var sum: Int = 0 \n for (element in this) { \n sum += selector(element) \n } \n return sum \n } \n \n \* \n \* Returns the sum of all values produced by [selector] function applied to each element in the sequence. \n \* \n \* The operation is \_terminal\_. \n \* \n @Deprecated("Use sumOf instead.", ReplaceWith("this.sumOf(selector)")) \n @DeprecatedSinceKotlin(warningSince = "1.5") \n public inline fun <T> Sequence<T>.sumByDouble(selector: (T) -> Double): Double { \n var sum: Double = 0.0 \n for (element in this) { \n sum += selector(element) \n } \n return sum \n } \n \n \* \n \* Returns the sum of all values produced by [selector] function applied to each element in the sequence. \n \* \n \* The operation is \_terminal\_. \n \* \n @SinceKotlin("1.4") \n @OptIn(kotlin.experimental.ExperimentalTypeInference::class) \n @OverloadResolutionByLambdaReturnType \n @kotlin.jvm.JvmName("sumOfDouble") \n @kotlin.internal.InlineOnly \n public inline fun <T> Sequence<T>.sumOf(selector: (T) -> Double): Double { \n var sum: Double = 0.toDouble() \n for (element in this) { \n sum += selector(element) \n } \n return sum \n } \n \n \* \n \* Returns the sum of all values produced by [selector] function applied to each element in the sequence. \n \* \n \* The operation is \_terminal\_. \n \* \n @SinceKotlin("1.4") \n @OptIn(kotlin.experimental.ExperimentalTypeInference::class) \n @OverloadResolutionByLambdaReturnType \n @kotlin.jvm.JvmName("sumOfInt") \n @kotlin.internal.InlineOnly \n public inline fun <T> Sequence<T>.sumOf(selector: (T) -> Int): Int { \n var sum: Int = 0.toInt() \n for (element in this) { \n sum += selector(element) \n } \n return sum \n } \n \n \* \n \* Returns the sum of all values produced by [selector] function applied to each element in the sequence. \n \* \n \* The operation is \_terminal\_. \n \* \n @SinceKotlin("1.4") \n @OptIn(kotlin.experimental.ExperimentalTypeInference::class) \n @OverloadResolutionByLambdaReturnType \n @kotlin.jvm.JvmName("sumOfLong") \n @kotlin.internal.InlineOnly \n public inline fun <T> Sequence<T>.sumOf(selector: (T) -> Long): Long { \n var sum: Long = 0.toLong() \n for (element in this) { \n sum += selector(element) \n } \n return sum \n } \n \n \* \n \* Returns the sum of all values produced by [selector] function applied to each element in the sequence. \n \* \n \* The operation is \_terminal\_. \n \* \n @SinceKotlin("1.5") \n @OptIn(kotlin.experimental.ExperimentalTypeInference::class) \n @OverloadResolutionByLambdaReturnType \n @kotlin.jvm.JvmName("sumOfUInt") \n @WasExperimental(ExperimentalUnsignedTypes::class) \n @kotlin.internal.InlineOnly \n public inline fun <T> Sequence<T>.sumOf(selector: (T) -> UInt): UInt { \n var sum: UInt = 0.toUInt() \n for (element in this) { \n sum += selector(element) \n } \n return sum \n } \n \n \* \n \* Returns the sum of all values produced by [selector] function applied to each element in the sequence. \n \* \n \* The operation is \_terminal\_. \n \* \n @SinceKotlin("1.5") \n @OptIn(kotlin.experimental.ExperimentalTypeInference::class) \n @OverloadResolutionByLambdaReturnType \n @kotlin.jvm.JvmName("sumOfULong") \n @WasExperimental(ExperimentalUnsignedTypes::class) \n @kotlin.internal.InlineOnly \n public inline fun <T> Sequence<T>.sumOf(selector: (T) -> ULong): ULong { \n var sum: ULong = 0.toULong() \n for (element in this) { \n sum += selector(element) \n } \n return sum \n } \n \n \* \n \* Returns an original collection containing all the non-`null` elements, throwing an [IllegalArgumentException] if there are any `null` elements. \n \* \n \* The operation is \_intermediate\_ and \_stateless\_. \n \* \n @public fun <T : Any> Sequence<T?>.requireNonNulls(): Sequence<T> { \n return map { it? } \n } \n \n \* \n \* Splits this sequence into a sequence of lists each not exceeding the given [size]. \n \* \n \* The last list in the resulting sequence may have fewer elements than the given [size]. \n \* \n \* @param size the number of elements to take in each list, must be positive and can be greater than the number of elements in this sequence. \n \* \n \* The operation is \_intermediate\_ and \_stateful\_. \n \* \n \* @sample samples.collections.Collections.Transformations.chunked \n \* \n @SinceKotlin("1.2") \n @public fun <T> Sequence<T>.chunked(size: Int): Sequence<List<T>> { \n return windowed(size, size, partialWindows = true) \n } \n \n \* \n \* Splits this sequence into several lists each not exceeding the given [size] \n \* and applies the given [transform] function to an each. \n \* \n \* @return sequence of results of the [transform] applied to an each



\* \n \* Note that the source sequence and the array being added are iterated only when an `iterator` is requested from \n \* the resulting sequence. Changing any of them between successive calls to `iterator` may affect the result.\n

\* \n \* The operation is `_intermediate_ and _stateless_`. \n \* \n public operator fun <T> Sequence<T>.plus(elements: Array<out T>): Sequence<T> {\n return this.plus(elements.asList())\n}\n \n /\*\*\n \* Returns a sequence containing all elements of original sequence and then all elements of the given [elements] collection.\n \* \n \* Note that the source sequence and the collection being added are iterated only when an `iterator` is requested from \n \* the resulting sequence. Changing any of them between successive calls to `iterator` may affect the result.\n \* \n \* The operation is `_intermediate_ and _stateless_`. \n \* \n public operator fun <T> Sequence<T>.plus(elements: Iterable<T>): Sequence<T> {\n return sequenceOf(this, elements.asSequence()).flatten()\n}\n \n /\*\*\n \* Returns a sequence containing all elements of original sequence and then all elements of the given [elements] sequence.\n \* \n \* Note that the source sequence and the sequence being added are iterated only when an `iterator` is requested from \n \* the resulting sequence. Changing any of them between successive calls to `iterator` may affect the result.\n \* \n \* The operation is `_intermediate_ and _stateless_`. \n \* \n public operator fun <T> Sequence<T>.plus(elements: Sequence<T>): Sequence<T> {\n return sequenceOf(this, elements).flatten()\n}\n \n /\*\*\n \* Returns a sequence containing all elements of the original sequence and then the given [element].\n \* \n \* The operation is `_intermediate_ and _stateless_`. \n \* \n @kotlin.internal.InlineOnly\n public inline fun <T> Sequence<T>.plusElement(element: T): Sequence<T> {\n return plus(element)\n}\n \n /\*\*\n \* Returns a sequence of snapshots of the window of the given [size] \n \* sliding along this sequence with the given [step], where each \n \* snapshot is a list.\n \* \n \* Several last lists may have fewer elements than the given [size].\n \* \n \* Both [size] and [step] must be positive and can be greater than the number of elements in this sequence.\n \* \n \* @param size the number of elements to take in each window\n \* @param step the number of elements to move the window forward by on an each step, by default 1\n \* @param partialWindows controls whether or not to keep partial windows in the end if any,\n \* by default `false` which means partial windows won't be preserved\n \* \n \* @sample samples.collections.Sequences.Transformations.takeWindows\n \* \n @SinceKotlin("1.2")\n public fun <T> Sequence<T>.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false): Sequence<List<T>> {\n return windowedSequence(size, step, partialWindows, reuseBuffer = false)\n}\n \n /\*\*\n \* Returns a sequence of results of applying the given [transform] function to \n \* an each list representing a view over the window of the given [size] \n \* sliding along this sequence with the given [step].\n \* \n \* Note that the list passed to the [transform] function is ephemeral and is valid only inside that function.\n \* \n \* You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n \* \n \* Several last lists may have fewer elements than the given [size].\n \* \n \* Both [size] and [step] must be positive and can be greater than the number of elements in this sequence.\n \* \n \* @param size the number of elements to take in each window\n \* @param step the number of elements to move the window forward by on an each step, by default 1\n \* @param partialWindows controls whether or not to keep partial windows in the end if any,\n \* by default `false` which means partial windows won't be preserved\n \* \n \* @sample samples.collections.Sequences.Transformations.averageWindows\n \* \n @SinceKotlin("1.2")\n public fun <T, R> Sequence<T>.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false, transform: (List<T>) -> R): Sequence<R> {\n return windowedSequence(size, step, partialWindows, reuseBuffer = true).map(transform)\n}\n \n /\*\*\n \* Returns a sequence of values built from the elements of `this` sequence and the [other] sequence with the same index.\n \* \n \* The resulting sequence ends as soon as the shortest input sequence ends.\n \* \n \* The operation is `_intermediate_ and _stateless_`. \n \* \n \* @sample samples.collections.Sequences.Transformations.zip\n \* \n public infix fun <T, R> Sequence<T>.zip(other: Sequence<R>): Sequence<Pair<T, R>> {\n return MergingSequence(this, other) { t1, t2 -> t1 to t2 }\n}\n \n /\*\*\n \* Returns a sequence of values built from the elements of `this` sequence and the [other] sequence with the same index \n \* using the provided [transform] function applied to each pair of elements.\n \* \n \* The resulting sequence ends as soon as the shortest input sequence ends.\n \* \n \* The operation is `_intermediate_ and _stateless_`. \n \* \n \* @sample samples.collections.Sequences.Transformations.zipWithTransform\n



```

an average value of elements in the sequence.\n *\n * The operation is _terminal_.\n
*\n@kotlin.jvm.JvmName("averageOfLong")\npublic fun Sequence<Long>.average(): Double {\n    var sum:
Double = 0.0\n    var count: Int = 0\n    for (element in this) {\n        sum += element\n
checkCountOverflow(++count)\n    }\n    return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns
an average value of elements in the sequence.\n *\n * The operation is _terminal_.\n
*\n@kotlin.jvm.JvmName("averageOfFloat")\npublic fun Sequence<Float>.average(): Double {\n    var sum:
Double = 0.0\n    var count: Int = 0\n    for (element in this) {\n        sum += element\n
checkCountOverflow(++count)\n    }\n    return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns
an average value of elements in the sequence.\n *\n * The operation is _terminal_.\n
*\n@kotlin.jvm.JvmName("averageOfDouble")\npublic fun Sequence<Double>.average(): Double {\n    var sum:
Double
= 0.0\n    var count: Int = 0\n    for (element in this) {\n        sum += element\n
checkCountOverflow(++count)\n    }\n    return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns
the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n
*\n@kotlin.jvm.JvmName("sumOfByte")\npublic fun Sequence<Byte>.sum(): Int {\n    var sum: Int = 0\n    for
(element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the
sequence.\n *\n * The operation is _terminal_.\n
*\n@kotlin.jvm.JvmName("sumOfShort")\npublic fun
Sequence<Short>.sum(): Int {\n    var sum: Int = 0\n    for (element in this) {\n        sum += element\n    }\n    return
sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n
*\n@kotlin.jvm.JvmName("sumOfInt")\npublic fun Sequence<Int>.sum(): Int {\n    var sum: Int = 0\n    for
(element in this) {\n        sum += element\n
    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is
_terminal_.\n
*\n@kotlin.jvm.JvmName("sumOfLong")\npublic fun Sequence<Long>.sum(): Long {\n    var sum:
Long = 0L\n    for (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of
all elements in the sequence.\n *\n * The operation is _terminal_.\n
*\n@kotlin.jvm.JvmName("sumOfFloat")\npublic fun Sequence<Float>.sum(): Float {\n    var sum: Float = 0.0f\n
for (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in
the sequence.\n *\n * The operation is _terminal_.\n
*\n@kotlin.jvm.JvmName("sumOfDouble")\npublic fun
Sequence<Double>.sum(): Double {\n    var sum: Double = 0.0\n    for (element in this) {\n        sum += element\n
    }\n    return sum\n}\n\n"/**\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this
source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("SetsKt")\n\npackage
kotlin.collections\n\n/\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\nimport kotlin.random.*\nimport
kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns a set containing all elements of the original
set except the given [element].\n *\n * The returned set preserves the element iteration order of the original set.\n
*\n *\npublic operator fun <T> Set<T>.minus(element: T): Set<T> {\n    val result =
LinkedHashSet<T>(mapCapacity(size))\n    var removed = false\n    return this.filterTo(result) { if (!removed && it
== element) { removed = true; false } else true }\n}\n\n/**\n * Returns a set containing all elements of the original
set except the elements contained in the given [elements]
array.\n *\n * The returned set preserves the element iteration order of the original set.\n
*\n *\npublic operator fun
<T> Set<T>.minus(elements: Array<out T>): Set<T> {\n    val result = LinkedHashSet<T>(this)\n
result.removeAll(elements)\n    return result\n}\n\n/**\n * Returns a set containing all elements of the original set
except the elements contained in the given [elements] collection.\n *\n * The returned set preserves the element
iteration order of the original set.\n
*\n *\npublic operator fun <T> Set<T>.minus(elements: Iterable<T>): Set<T> {\n
val other = elements.convertToListIfNotCollection()\n    if (other.isEmpty())\n        return this.toSet()\n    if (other is
Set)\n        return this.filterNotTo(LinkedHashSet<T>()) { it in other }\n    val result = LinkedHashSet<T>(this)\n

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result.removeAll(other)\n    return result\n}\n\n/**\n * Returns a set containing all elements of the original set
except the elements contained in the given [elements] sequence.\n
 * \n * The returned set preserves the element iteration order of the original set.\n */\npublic operator fun <T>
Set<T>.minus(elements: Sequence<T>): Set<T> {\n    val result = LinkedHashSet<T>(this)\n
result.removeAll(elements)\n    return result\n}\n\n/**\n * Returns a set containing all elements of the original set
except the given [element].\n * \n * The returned set preserves the element iteration order of the original set.\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun <T> Set<T>.minusElement(element: T): Set<T> {\n    return
minus(element)\n}\n\n/**\n * Returns a set containing all elements of the original set and then the given [element] if
it isn't already in this set.\n * \n * The returned set preserves the element iteration order of the original set.\n
*/\npublic operator fun <T> Set<T>.plus(element: T): Set<T> {\n    val result =
LinkedHashSet<T>(mapCapacity(size + 1))\n    result.addAll(this)\n    result.add(element)\n    return
result\n}\n\n/**\n * Returns a set
containing all elements of the original set and the given [elements] array,\n * which aren't already in this set.\n * \n
*/\npublic operator fun <T>
Set<T>.plus(elements: Array<out T>): Set<T> {\n    val result = LinkedHashSet<T>(mapCapacity(this.size +
elements.size))\n    result.addAll(this)\n    result.addAll(elements)\n    return result\n}\n\n/**\n * Returns a set
containing all elements of the original set and the given [elements] collection,\n * which aren't already in this set.\n
*/\npublic operator fun <T>
Set<T>.plus(elements: Iterable<T>): Set<T> {\n    val result =
LinkedHashSet<T>(mapCapacity(elements.collectionSizeOrNull()?.let { this.size + it } ?: this.size * 2))\n
result.addAll(this)\n    result.addAll(elements)\n    return result\n}\n\n/**\n * Returns a set containing all elements of
the original set and the
given [elements] sequence,\n * which aren't already in this set.\n * \n * The returned set preserves the element
iteration order of the original set.\n */\npublic operator fun <T> Set<T>.plus(elements: Sequence<T>): Set<T> {\n
val result = LinkedHashSet<T>(mapCapacity(this.size * 2))\n    result.addAll(this)\n    result.addAll(elements)\n
return result\n}\n\n/**\n * Returns a set containing all elements of the original set and then the given [element] if
it isn't already in this set.\n * \n * The returned set preserves the element iteration order of the original set.\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun <T> Set<T>.plusElement(element: T): Set<T> {\n    return
plus(element)\n}\n\n", /*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("StringsKt")\n\npackage
kotlin.text\n\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\nimport kotlin.random.*\n\n/**\n * Returns a
character at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this char
sequence.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun
CharSequence.elementAt(index: Int): Char\n\n/**\n * Returns a character at the given [index] or the result of calling
the [defaultValue] function if the [index] is out of bounds of this char sequence.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun
CharSequence.elementAtOrElse(index: Int, defaultValue: (Int) -> Char): Char {\n    return if (index >= 0 && index
<= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns a character at the given [index] or `null`
if the [index] is out of bounds of this char sequence.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun
CharSequence.elementAtOrNull(index: Int): Char? {\n    return this.getOrNull(index)\n}\n\n/**\n * Returns the first
character matching the given [predicate], or `null` if no such character was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun
CharSequence.find(predicate: (Char) -> Boolean): Char? {\n    return firstOrNull(predicate)\n}\n\n/**\n * Returns
the last character matching the given [predicate], or `null` if no such character was found.\n * \n * @sample

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samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun
CharSequence.findLast(predicate: (Char) -> Boolean): Char? {\n    return lastOrNull(predicate)\n}\n\n/**\n *
Returns the first character.\n * \n * @throws NoSuchElementException
if the char sequence is empty.\n */\npublic fun CharSequence.first(): Char {\n    if (isEmpty())\n        throw
NoSuchElementException("Char sequence is empty.")\n    return this[0]\n}\n\n/**\n * Returns the first character
matching the given [predicate].\n * @throws [NoSuchElementException] if no such character is found.\n */\npublic
inline fun CharSequence.first(predicate: (Char) -> Boolean): Char {\n    for (element in this) if (predicate(element))
return element\n    throw NoSuchElementException("Char sequence contains no character matching the
predicate.")\n}\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to
characters of this char sequence in iteration order,\n * or throws [NoSuchElementException] if no non-null value
was produced.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n
*/\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\npublic inline fun <R : Any>
CharSequence.firstNotNullOf(transform:
(Char) -> R?): R? {\n    return firstNotNullOfOrNull(transform) ?: throw NoSuchElementException("No element of
the char sequence was transformed to a non-null value.")\n}\n\n/**\n * Returns the first non-null value produced by
[transform] function being applied to characters of this char sequence in iteration order,\n * or `null` if no non-null
value was produced.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n
*/\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\npublic inline fun <R : Any>
CharSequence.firstNotNullOfOrNull(transform: (Char) -> R?): R? {\n    for (element in this) {\n        val result =
transform(element)\n        if (result != null) {\n            return result\n        }\n    }\n    return null\n}\n\n/**\n *
Returns the first character, or `null` if the char sequence is empty.\n */\npublic fun CharSequence.firstOrNull():
Char? {\n    return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first character matching the
given [predicate], or `null` if character was not found.\n */\npublic inline fun CharSequence.firstOrNull(predicate:
(Char) -> Boolean): Char? {\n    for (element in this) if (predicate(element)) return element\n    return
null\n}\n\n/**\n * Returns a character at the given [index] or the result of calling the [defaultValue] function if the
[index] is out of bounds of this char sequence.\n */\n@kotlin.internal.InlineOnly\npublic inline fun
CharSequence.getOrNull(index: Int, defaultValue: (Int) -> Char): Char? {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns a character at the given [index] or `null` if the
[index] is out of bounds of this char sequence.\n * \n * @sample
samples.collections.Collections.Elements.getOrNull\n */\npublic fun CharSequence.getOrNull(index: Int): Char?
{\n    return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns index of the first
character matching the given [predicate],
or -1 if the char sequence does not contain such character.\n */\npublic inline fun
CharSequence.indexOfFirst(predicate: (Char) -> Boolean): Int {\n    for (index in indices) {\n        if
(predicate(this[index]))\n            return index\n    }\n    return -1\n}\n\n/**\n * Returns index of the last
character matching the given [predicate], or -1 if the char sequence does not contain such character.\n */\npublic
inline fun CharSequence.indexOfLast(predicate: (Char) -> Boolean): Int {\n    for (index in indices.reversed()) {\n
if (predicate(this[index]))\n        return index\n    }\n    return -1\n}\n\n/**\n * Returns the last
character.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n * \n * @sample
samples.text.Strings.last\n */\npublic fun CharSequence.last(): Char {\n    if (isEmpty())\n        throw
NoSuchElementException("Char sequence is empty.")\n    return this[lastIndex]\n}\n\n/**\n * Returns the last
character
matching the given [predicate].\n * \n * @throws NoSuchElementException if no such character is found.\n * \n *
@sample samples.text.Strings.last\n */\npublic inline fun CharSequence.last(predicate: (Char) -> Boolean): Char {\n
for (index in this.indices.reversed()) {\n    val element = this[index]\n    if (predicate(element)) return
element\n }\n    throw NoSuchElementException("Char sequence contains no character matching the
predicate.")\n}\n\n/**\n * Returns the last character, or `null` if the char sequence is empty.\n * \n * @sample
samples.text.Strings.last\n */\npublic fun CharSequence.lastOrNull(): Char? {\n    return if (isEmpty()) null else

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this[length - 1]\n\n/**\n * Returns the last character matching the given [predicate], or `null` if no such character
was found.\n * \n * @sample samples.text.Strings.last\n */\npublic inline fun CharSequence.lastOrNull(predicate:
(Char) -> Boolean): Char? {\n    for (index in this.indices.reversed()) {\n        val
        element = this[index]\n        if (predicate(element)) return element\n    }\n    return null\n}\n\n/**\n * Returns a
random character from this char sequence.\n * \n * @throws NoSuchElementException if this char sequence is
empty.\n */\n\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.random(): Char
{\n    return random(Random)\n}\n\n/**\n * Returns a random character from this char sequence using the specified
source of randomness.\n * \n * @throws NoSuchElementException if this char sequence is empty.\n */\n\n@SinceKotlin("1.3")\npublic fun CharSequence.random(random: Random): Char {\n    if (isEmpty())\n        throw NoSuchElementException("Char sequence is empty.")\n    return get(random.nextInt(length))\n}\n\n/**\n *
Returns a random character from this char sequence, or `null` if this char sequence is empty.\n */\n\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic
inline fun CharSequence.randomOrNull():
    Char? {\n        return randomOrNull(Random)\n    }\n\n/**\n * Returns a random character from this char sequence
using the specified source of randomness, or `null` if this char sequence is empty.\n */\n\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun
    CharSequence.randomOrNull(random: Random): Char? {\n        if (isEmpty())\n            return null\n        return
        get(random.nextInt(length))\n    }\n\n/**\n * Returns the single character, or throws an exception if the char sequence
is empty or has more than one character.\n */\n\npublic fun CharSequence.single(): Char {\n    return when (length)
{\n        0 -> throw NoSuchElementException("Char sequence is empty.")\n        1 -> this[0]\n        else -> throw
        IllegalArgumentException("Char sequence has more than one element.")\n    }\n}\n\n/**\n * Returns the single
character matching the given [predicate], or throws exception if there is no or more than one matching character.\n */\n\npublic inline fun CharSequence.single(predicate:
(Char) -> Boolean): Char {\n    var single: Char? = null\n    var found = false\n    for (element in this) {\n        if
        (predicate(element)) {\n            if (found) throw IllegalArgumentException("Char sequence contains more than one
matching element.")\n            single = element\n            found = true\n        }\n    }\n    if (!found) throw
        NoSuchElementException("Char sequence contains no character matching the predicate.")\n    @Suppress("UNCHECKED_CAST")\n    return single as Char\n}\n\n/**\n * Returns single character, or `null` if
the char sequence is empty or has more than one character.\n */\n\npublic fun CharSequence.singleOrNull(): Char?
{\n    return if (length == 1) this[0] else null\n}\n\n/**\n * Returns the single character matching the given
[predicate], or `null` if character was not found or more than one character was found.\n */\n\npublic inline fun
    CharSequence.singleOrNull(predicate: (Char) -> Boolean): Char? {\n        var single:
        Char? = null\n        var found = false\n        for (element in this) {\n            if (predicate(element)) {\n                if (found)
                return null\n                single = element\n                found = true\n            }\n        }\n        if (!found) return null\n        return
        single\n    }\n\n/**\n * Returns a subsequence of this char sequence with the first [n] characters removed.\n * \n *
@throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.drop\n */\n\npublic fun
    CharSequence.drop(n: Int): CharSequence {\n        require(n >= 0) { "Requested character count $n is less than zero." }\n        return subSequence(n.coerceAtMost(length), length)\n    }\n\n/**\n * Returns a string with the first [n] characters
removed.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
    samples.text.Strings.drop\n */\n\npublic fun String.drop(n: Int): String {\n        require(n >= 0) { "Requested character
count $n is less than zero." }\n        return substring(n.coerceAtMost(length))\n    }\n\n/**\n * Returns a subsequence of this char sequence with the last [n] characters removed.\n * \n *
@throws
        IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.drop\n */\n\npublic fun
    CharSequence.dropLast(n: Int): CharSequence {\n        require(n >= 0) { "Requested character count $n is less than
zero." }\n        return take((length - n).coerceAtLeast(0))\n    }\n\n/**\n * Returns a string with the last [n] characters
removed.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
    samples.text.Strings.drop\n */\n\npublic fun String.dropLast(n: Int): String {\n        require(n >= 0) { "Requested
character count $n is less than zero." }\n        return take((length - n).coerceAtLeast(0))\n    }\n\n/**\n * Returns a

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subsequence of this char sequence containing all characters except last characters that satisfy the given [predicate].\n
*\n * @sample samples.text.Strings.drop\n *\npublic inline fun CharSequence.dropLastWhile(predicate: (Char) ->
Boolean):
CharSequence {\n for (index in lastIndex downTo 0)\n if (!predicate(this[index]))\n return
subSequence(0, index + 1)\n return ""\n}\n\n/**\n * Returns a string containing all characters except last
characters that satisfy the given [predicate].\n *\n * @sample samples.text.Strings.drop\n *\npublic inline fun
String.dropLastWhile(predicate: (Char) -> Boolean): String {\n for (index in lastIndex downTo 0)\n if
(!predicate(this[index]))\n return substring(0, index + 1)\n return ""\n}\n\n/**\n * Returns a subsequence
of this char sequence containing all characters except first characters that satisfy the given [predicate].\n *\n *
@sample samples.text.Strings.drop\n *\npublic inline fun CharSequence.dropWhile(predicate: (Char) -> Boolean):
CharSequence {\n for (index in this.indices)\n if (!predicate(this[index]))\n return subSequence(index,
length)\n return ""\n}\n\n/**\n * Returns a string containing
all characters except first characters that satisfy the given [predicate].\n *\n * @sample samples.text.Strings.drop\n
*\npublic inline fun String.dropWhile(predicate: (Char) -> Boolean): String {\n for (index in this.indices)\n if
(!predicate(this[index]))\n return substring(index)\n return ""\n}\n\n/**\n * Returns a char sequence
containing only those characters from the original char sequence that match the given [predicate].\n *\n * @sample
samples.text.Strings.filter\n *\npublic inline fun CharSequence.filter(predicate: (Char) -> Boolean): CharSequence
{\n return filterTo(StringBuilder(), predicate)\n}\n\n/**\n * Returns a string containing only those characters from
the original string that match the given [predicate].\n *\n * @sample samples.text.Strings.filter\n *\npublic inline
fun String.filter(predicate: (Char) -> Boolean): String {\n return filterTo(StringBuilder(),
predicate.toString())\n}\n\n/**\n * Returns a char sequence containing
only those characters from the original char sequence that match the given [predicate].\n * @param [predicate]
function that takes the index of a character and the character itself\n * and returns the result of predicate evaluation
on the character.\n *\n * @sample samples.collections.Collections.Filtering.filterIndexed\n *\npublic inline fun
CharSequence.filterIndexed(predicate: (index: Int, Char) -> Boolean): CharSequence {\n return
filterIndexedTo(StringBuilder(), predicate)\n}\n\n/**\n * Returns a string containing only those characters from the
original string that match the given [predicate].\n * @param [predicate] function that takes the index of a character
and the character itself\n * and returns the result of predicate evaluation on the character.\n *\n * @sample
samples.collections.Collections.Filtering.filterIndexed\n *\npublic inline fun String.filterIndexed(predicate: (index:
Int, Char) -> Boolean): String {\n return filterIndexedTo(StringBuilder(), predicate).toString()\n}\n\n/**\n
* Appends all characters matching the given [predicate] to the given [destination].\n * @param [predicate] function
that takes the index of a character and the character itself\n * and returns the result of predicate evaluation on the
character.\n *\n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n *\npublic inline fun <C :
Appendable> CharSequence.filterIndexedTo(destination: C, predicate: (index: Int, Char) -> Boolean): C {\n
forEachIndexed { index, element ->\n if (predicate(index, element)) destination.append(element)\n }\n
return destination\n}\n\n/**\n * Returns a char sequence containing only those characters from the original char
sequence that do not match the given [predicate].\n *\n * @sample samples.text.Strings.filterNot\n *\npublic inline
fun CharSequence.filterNot(predicate: (Char) -> Boolean): CharSequence {\n return filterNotTo(StringBuilder(),
predicate)\n}\n\n/**\n * Returns a string containing only
those characters from the original string that do not match the given [predicate].\n *\n * @sample
samples.text.Strings.filterNot\n *\npublic inline fun String.filterNot(predicate: (Char) -> Boolean): String {\n
return filterNotTo(StringBuilder(), predicate).toString()\n}\n\n/**\n * Appends all characters not matching the given
[predicate] to the given [destination].\n *\n * @sample samples.collections.Collections.Filtering.filterTo\n
*\npublic inline fun <C : Appendable> CharSequence.filterNotTo(destination: C, predicate: (Char) -> Boolean): C
{\n for (element in this) if (!predicate(element)) destination.append(element)\n return destination\n}\n\n/**\n
* Appends all characters matching the given [predicate] to the given [destination].\n *\n * @sample
samples.collections.Collections.Filtering.filterTo\n *\npublic inline fun <C : Appendable>
CharSequence.filterTo(destination: C, predicate: (Char) -> Boolean): C {\n for (index in 0 until length) {\n val

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element

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= get(index)\n    if (predicate(element)) destination.append(element)\n }\n return destination\n}\n\n/**\n * Returns a char sequence containing characters of the original char sequence at the specified range of [indices].\n */\npublic fun CharSequence.slice(indices: IntRange): CharSequence {\n    if (indices.isEmpty()) return ""\n    return subSequence(indices)\n}\n\n/**\n * Returns a string containing characters of the original string at the specified range of [indices].\n */\npublic fun String.slice(indices: IntRange): String {\n    if (indices.isEmpty())\n        return ""\n    return substring(indices)\n}\n\n/**\n * Returns a char sequence containing characters of the original char sequence at specified [indices].\n */\npublic fun CharSequence.slice(indices: Iterable<Int>): CharSequence {\n    val size = indices.collectionSizeOrDefault(10)\n    if (size == 0) return ""\n    val result = StringBuilder(size)\n    for (i in indices) {\n        result.append(get(i))\n    }\n    return result\n}\n\n/**\n * Returns a string containing characters of the original string at specified [indices].\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.slice(indices: Iterable<Int>): String {\n    return (this as CharSequence).slice(indices).toString()\n}\n\n/**\n * Returns a subsequence of this char sequence containing the first [n] characters from this char sequence, or the entire char sequence if this char sequence is shorter.\n * \n * @throws IllegalArgumentException if [n] is negative.\n */\npublic fun CharSequence.take(n: Int): CharSequence {\n    require(n >= 0) { "Requested character count $n is less than zero." }\n    return subSequence(0, n.coerceAtMost(length))\n}\n\n/**\n * Returns a string containing the first [n] characters from this string, or the entire string if this string is shorter.\n * \n * @throws IllegalArgumentException if [n] is negative.\n */\npublic fun String.take(n: Int): String {\n    require(n >= 0) { "Requested character count $n is less than zero." }\n    return substring(0, n.coerceAtMost(length))\n}\n\n/**\n * Returns a subsequence of this char sequence containing the last [n] characters from this char sequence, or the entire char sequence if this char sequence is shorter.\n * \n * @throws IllegalArgumentException if [n] is negative.\n */\npublic fun CharSequence.takeLast(n: Int): CharSequence {\n    require(n >= 0) { "Requested character count $n is less than zero." }\n    val length = length\n    return subSequence(length - n.coerceAtMost(length), length)\n}\n\n/**\n * Returns a string containing the last [n] characters from this string, or the entire string if this string is shorter.\n * \n * @throws IllegalArgumentException if [n] is negative.\n */\npublic fun String.takeLast(n: Int): String {\n    require(n >= 0) { "Requested character count $n is less than zero." }\n    val length = length\n    return substring(length - n.coerceAtMost(length))\n}\n\n/**\n * Returns a subsequence of this char sequence containing last characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.take\n */\npublic inline fun CharSequence.takeLastWhile(predicate: (Char) -> Boolean): CharSequence {\n    for (index in lastIndex downTo 0) {\n        if (!predicate(this[index]))\n            return subSequence(index + 1, length)\n    }\n    return subSequence(0, length)\n}\n\n/**\n * Returns a string containing last characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.take\n */\npublic inline fun String.takeLastWhile(predicate: (Char) -> Boolean): String {\n    for (index in lastIndex downTo 0) {\n        if (!predicate(this[index]))\n            return substring(index + 1)\n    }\n    return this\n}\n\n/**\n * Returns a subsequence of this char sequence containing the first characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.take\n */\npublic inline fun CharSequence.takeWhile(predicate: (Char) -> Boolean): CharSequence {\n    for (index in 0 until length)\n        if (!predicate(get(index)))\n            return subSequence(0, index)\n    return subSequence(0, length)\n}\n\n/**\n * Returns a string containing the first characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.take\n */\npublic inline fun String.takeWhile(predicate: (Char) -> Boolean): String {\n    for (index in 0 until length)\n        if (!predicate(get(index)))\n            return substring(0, index)\n    return this\n}\n\n/**\n * Returns a char sequence with characters in reversed order.\n */\npublic fun CharSequence.reversed(): CharSequence {\n    return StringBuilder(this).reverse()\n}\n\n/**\n * Returns a string with characters in reversed order.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.reversed(): String {\n    return (this as CharSequence).reversed().toString()\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to characters of the given char
```

```

sequence.
 * If any of two pairs would have the same key the last one gets added to the map.
 * The returned map preserves the entry iteration order of the original char sequence.
 * @sample
samples.text.Strings.associate
 *public inline fun <K, V> CharSequence.associate(transform: (Char) -> Pair<K,
V>): Map<K, V> {
    val capacity = mapCapacity(length).coerceAtLeast(16)
    return
    associateTo(LinkedHashMap<K, V>(capacity), transform)
}
 * Returns a [Map] containing the characters
from the given char sequence indexed by the key
 * returned from [keySelector] function applied to each
character.
 * If any two characters would have the same key returned by [keySelector] the last one gets added
to the map.
 *
 * The returned map preserves the entry iteration order of the original char sequence.
 * @sample
samples.text.Strings.associateBy
 *public inline fun <K> CharSequence.associateBy(keySelector: (Char) -> K):
Map<K, Char> {
    val capacity = mapCapacity(length).coerceAtLeast(16)
    return
    associateByTo(LinkedHashMap<K, Char>(capacity), keySelector)
}
 * Returns a [Map] containing the
values provided by [valueTransform] and indexed by [keySelector] functions applied to characters of the given char
sequence.
 * If any two characters would have the same key returned by [keySelector] the last one gets added
to the map.
 * The returned map preserves the entry iteration order of the original char sequence.
 * @sample
samples.text.Strings.associateByWithValueTransform
 *public inline fun <K, V>
CharSequence.associateBy(keySelector: (Char) -> K, valueTransform: (Char) -> V): Map<K, V> {
    val capacity
= mapCapacity(length).coerceAtLeast(16)
    return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)
}
 * Populates
and returns the [destination] mutable map with key-value pairs,
 * where key is provided by the [keySelector]
function applied to each character of the given char sequence
 * and value is the character itself.
 * If any two
characters would have the same key returned by [keySelector] the last one gets added to the map.
 * @sample
samples.text.Strings.associateByTo
 *public inline fun <K, M : MutableMap<in K, in Char>>
CharSequence.associateByTo(destination: M, keySelector: (Char) -> K): M {
    for (element in this) {
    destination.put(keySelector(element), element)
    }
    return destination
}
 * Populates and returns the
[destination] mutable map with key-value pairs,
 * where key is provided by the [keySelector] function and
 * value is provided by the [valueTransform] function applied to characters of the given char sequence.
 * If any two characters would have the same key returned by [keySelector] the last one gets added to the map.
 * @sample
samples.text.Strings.associateByToWithValueTransform
 *public inline fun <K, V, M :
MutableMap<in K, in V>> CharSequence.associateByTo(destination: M, keySelector: (Char) -> K,
valueTransform: (Char) -> V): M {
    for (element in this) {
    destination.put(keySelector(element),
valueTransform(element))
    }
    return destination
}
 * Populates and returns the [destination] mutable
map with key-value pairs
 * provided by [transform] function applied to each character of the given char
sequence.
 * If any of two pairs would have the same key the last one gets added to the map.
 * @sample
samples.text.Strings.associateTo
 *public inline fun <K, V, M : MutableMap<in K, in V>>
CharSequence.associateTo(destination: M, transform: (Char) -> Pair<K, V>): M {
    for (element in this) {
    destination += transform(element)
    }
    return destination
}
 * Returns a [Map] where keys are characters from the given char sequence
and values are
 * produced by the [valueSelector] function applied to each character.
 * If any two characters
are equal, the last one gets added to the map.
 * The returned map preserves the entry iteration order of the
original char sequence.
 * @sample
samples.text.Strings.associateWith
 *public
inline fun <V> CharSequence.associateWith(valueSelector: (Char) -> V): Map<Char, V> {
    val result =
    LinkedHashMap<Char, V>(mapCapacity(length).coerceAtMost(128)).coerceAtLeast(16)
    return
    associateWithTo(result, valueSelector)
}
 * Populates and returns the [destination] mutable map with key-
value pairs for each character of the given char sequence,
 * where key is the character itself and value is provided
by the [valueSelector] function applied to that key.
 * If any two characters are equal, the last one
overwrites the former value in the map.
 * @sample
samples.text.Strings.associateWithTo
 *public inline fun <V, M : MutableMap<in Char, in V>>

```

```

CharSequence.associateWithTo(destination: M, valueSelector: (Char) -> V): M {
    for (element in this) {
        destination.put(element, valueSelector(element))
    }
    return destination
}
Append all characters to the given [destination] collection.
public fun <C : MutableCollection<in Char>>
CharSequence.toCollection(destination: C): C {
    for (item in this) {
        destination.add(item)
    }
    return destination
}
Returns a new [HashSet] of all characters.
public fun CharSequence.toHashSet():
HashSet<Char> {
    return toCollection(HashSet<Char>(mapCapacity(length.coerceAtMost(128))))
}
Returns a [List] containing all characters.
public fun CharSequence.toList(): List<Char> {
    return when (length) {
        0 -> emptyList()
        1 -> listOf(this[0])
        else -> this.toMutableList()
    }
}
Returns a new [MutableList] filled with all characters of this char sequence.
public fun CharSequence.toMutableList(): MutableList<Char> {
    return toCollection(ArrayList<Char>(length))
}
Returns a [Set] of all characters.
* The returned set preserves the element iteration order of the original char sequence.
public fun CharSequence.toSet():
Set<Char> {
    return when (length) {
        0 -> emptySet()
        1 -> setOf(this[0])
        else ->
toCollection(LinkedHashSet<Char>(mapCapacity(length.coerceAtMost(128))))
    }
}
Returns a single list of all elements yielded from results of [transform] function being invoked on each character of original char sequence.
* @sample samples.collections.Collections.Transformations.flatMap
public inline fun <R>
CharSequence.flatMap(transform: (Char) -> Iterable<R>): List<R> {
    return flatMapTo(ArrayList<R>(), transform)
}
Returns a single list of all elements yielded from results of [transform] function being invoked on each character and its index in the original char sequence.
* @sample
samples.collections.Collections.Transformations.flatMapIndexed
* Since Kotlin("1.4")
* OptIn(kotlin.experimental.ExperimentalTypeInference::class)
* OverloadResolutionByLambdaReturnType
* kotlin.jvm.JvmName("flatMapIndexedIterable")
* kotlin.internal.InlineOnly
public inline fun <R>
CharSequence.flatMapIndexed(transform: (index: Int, Char) -> Iterable<R>): List<R> {
    return flatMapIndexedTo(ArrayList<R>(), transform)
}
Append all elements yielded from results of [transform] function being invoked on each character and its index in the original char sequence, to the given [destination].
* Since Kotlin("1.4")
* OptIn(kotlin.experimental.ExperimentalTypeInference::class)
* OverloadResolutionByLambdaReturnType
* kotlin.jvm.JvmName("flatMapIndexedIterableTo")
* kotlin.internal.InlineOnly
public inline fun <R, C : MutableCollection<in R>>
CharSequence.flatMapIndexedTo(destination: C, transform: (index: Int, Char) -> Iterable<R>): C {
    var index = 0
    for (element in this) {
        val list = transform(index++, element)
        destination.addAll(list)
    }
    return destination
}
Append all elements yielded from results of [transform] function being invoked on each character of original char sequence, to the given [destination].
public inline fun <R, C : MutableCollection<in R>>
CharSequence.flatMapTo(destination: C, transform: (Char) -> Iterable<R>): C {
    for (element in this) {
        val list = transform(element)
        destination.addAll(list)
    }
    return destination
}
Groups characters of the original char sequence by the key returned by the given [keySelector] function applied to each character and returns a map where each group key is associated with a list of corresponding characters.
* The returned map preserves the entry iteration order of the keys produced from the original char sequence.
* @sample samples.collections.Collections.Transformations.groupBy
* public inline fun <K>
CharSequence.groupBy(keySelector: (Char) -> K): Map<K, List<Char>> {
    return groupByTo(LinkedHashMap<K, MutableList<Char>>(), keySelector)
}
Groups values returned by the [valueTransform] function applied to each character of the original char sequence by the key returned by the given [keySelector] function applied to the character and returns a map where each group key is associated with a list of corresponding values.
* The returned map preserves the entry iteration order of the keys produced from the original char sequence.
* @sample
samples.collections.Collections.Transformations.groupByKeysAndValues
* public inline fun <K, V>
CharSequence.groupBy(keySelector: (Char) -> K, valueTransform: (Char)

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-> V): Map<K, List<V>> {\n  return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector,
valueTransform)\n}\n\n/**\n * Groups characters of the original char sequence by the key returned by the given
[keySelector] function\n * applied to each character and puts to the [destination] map each group key associated
with a list of corresponding characters.\n * \n * @return The [destination] map.\n * \n * @sample
samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M : MutableMap<in K,
MutableList<Char>>> CharSequence.groupByTo(destination: M, keySelector: (Char) -> K): M {\n  for (element in
this) {\n    val key = keySelector(element)\n    val list = destination.getOrPut(key) { ArrayList<Char>() }\n    list.add(element)\n  }\n  return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function
applied to each character of the original char sequence\n * by the key returned by the given [keySelector] function
applied
to the character\n * and puts to the [destination] map each group key associated with a list of corresponding
values.\n * \n * @return The [destination] map.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V, M :
MutableMap<in K, MutableList<V>>> CharSequence.groupByTo(destination: M, keySelector: (Char) -> K,
valueTransform: (Char) -> V): M {\n  for (element in this) {\n    val key = keySelector(element)\n    val list =
destination.getOrPut(key) { ArrayList<V>() }\n    list.add(valueTransform(element))\n  }\n  return
destination\n}\n\n/**\n * Creates a [Grouping] source from a char sequence to be used later with one of group-and-
fold operations\n * using the specified [keySelector] function to extract a key from each character.\n * \n * @sample
samples.collections.Grouping.groupingByEachCount\n */\n@SinceKotlin("1.1")\npublic inline fun <K>
CharSequence.groupingBy(crossinline keySelector: (Char)
-> K): Grouping<Char, K> {\n  return object : Grouping<Char, K> {\n    override fun sourceIterator():
Iterator<Char> = this@groupingBy.iterator()\n    override fun keyOf(element: Char): K = keySelector(element)\n
  }\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each character
in the original char sequence.\n * \n * @sample samples.text.Strings.map\n */\npublic inline fun <R>
CharSequence.map(transform: (Char) -> R): List<R> {\n  return mapTo(ArrayList<R>(length),
transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each
character and its index in the original char sequence.\n * @param [transform] function that takes the index of a
character and the character itself\n * and returns the result of the transform applied to the character.\n */\npublic
inline fun <R> CharSequence.mapIndexed(transform: (index: Int, Char) -> R): List<R> {\n  return
mapIndexedTo(ArrayList<R>(length),
transform)\n}\n\n/**\n * Returns a list containing only the non-null results of applying the given [transform]
function\n * to each character and its index in the original char sequence.\n * @param [transform] function that
takes the index of a character and the character itself\n * and returns the result of the transform applied to the
character.\n */\npublic inline fun <R : Any> CharSequence.mapIndexedNotNull(transform: (index: Int, Char) ->
R?): List<R> {\n  return mapIndexedNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given
[transform] function to each character and its index in the original char sequence\n * and appends only the non-null
results to the given [destination].\n * @param [transform] function that takes the index of a character and the
character itself\n * and returns the result of the transform applied to the character.\n */\npublic inline fun <R : Any,
C : MutableCollection<in R>> CharSequence.mapIndexedNotNullTo(destination:
C, transform: (index: Int, Char) -> R?): C {\n  forEachIndexed { index, element -> transform(index, element)?.let
{ destination.add(it) } }\n  return destination\n}\n\n/**\n * Applies the given [transform] function to each character
and its index in the original char sequence\n * and appends the results to the given [destination].\n * @param
[transform] function that takes the index of a character and the character itself\n * and returns the result of the
transform applied to the character.\n */\npublic inline fun <R, C : MutableCollection<in R>>
CharSequence.mapIndexedTo(destination: C, transform: (index: Int, Char) -> R): C {\n  var index = 0\n  for (item
in this)\n    destination.add(transform(index++, item))\n  return destination\n}\n\n/**\n * Returns a list
containing only the non-null results of applying the given [transform] function\n * to each character in the original
char sequence.\n * \n * @sample samples.collections.Collections.Transformations.mapNotNull\n

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*public inline fun <R : Any> CharSequence.mapNotNull(transform: (Char) -> R?): List<R> {
    return mapNotNullTo(ArrayList<R>(), transform)
}
* Applies the given [transform] function to each character in the original char sequence
* and appends only the non-null results to the given [destination].
*public inline fun <R : Any, C : MutableCollection<in R>> CharSequence.mapNotNullTo(destination: C, transform: (Char) -> R?): C {
    forEach { element -> transform(element)?.let { destination.add(it) } }
    return destination
}
* Applies the given [transform] function to each character of the original char sequence
* and appends the results to the given [destination].
*public inline fun <R, C : MutableCollection<in R>> CharSequence.mapTo(destination: C, transform: (Char) -> R): C {
    for (item in this)
        destination.add(transform(item))
    return destination
}
* Returns a lazy [Iterable] that wraps each character of the original char sequence
* into an [IndexedValue] containing the index of that character and the character itself.
*public fun CharSequence.withIndex(): Iterable<IndexedValue<Char>> {
    return IndexingIterable { iterator() }
}
* Returns `true` if all characters match the given [predicate].
* Note that if the char sequence contains no characters, the function returns `true`
* because there are no characters in it that do not match the predicate.
* See a more detailed explanation of this logic concept in ["Vacuous truth"](https://en.wikipedia.org/wiki/Vacuous_truth) article.
* @sample
samples.collections.Collections.Aggregates.all
*public inline fun CharSequence.all(predicate: (Char) -> Boolean): Boolean {
    for (element in this) if (!predicate(element)) return false
    return true
}
* Returns `true` if char sequence has at least one character.
* @sample
samples.collections.Collections.Aggregates.any
*public fun CharSequence.any(): Boolean {
    return !isEmpty()
}
* Returns `true` if at least one character matches the given [predicate].
* @sample
samples.collections.Collections.Aggregates.anyWithPredicate
*public inline fun CharSequence.any(predicate: (Char) -> Boolean): Boolean {
    for (element in this) if (predicate(element)) return true
    return false
}
* Returns the length of this char sequence.
* @kotlin.internal.InlineOnly
*public inline fun CharSequence.count(): Int {
    return length
}
* Returns the number of characters matching the given [predicate].
*public inline fun CharSequence.count(predicate: (Char) -> Boolean): Int {
    var count = 0
    for (element in this) if (predicate(element)) ++count
    return count
}
* Accumulates value starting with [initial] value and applying [operation] from left to right
* to current accumulator value and each character.
* Returns the specified [initial] value if the char sequence is empty.
* @param [operation] function that takes current accumulator value and a character, and calculates the next accumulator value.
*public inline fun <R> CharSequence.fold(initial: R, operation: (acc: R, Char) -> R): R {
    var accumulator = initial
    for (element in this) accumulator = operation(accumulator, element)
    return accumulator
}
* Accumulates value starting with [initial] value and applying [operation] from left to right
* to current accumulator value and each character with its index in the original char sequence.
* Returns the specified [initial] value if the char sequence is empty.
* @param [operation] function that takes the index of a character, current accumulator value
* and the character itself, and calculates the next accumulator value.
*public inline fun <R> CharSequence.foldIndexed(initial: R, operation: (index: Int, acc: R, Char) -> R): R {
    var index = 0
    var accumulator = initial
    for (element in this) accumulator = operation(index++, accumulator, element)
    return accumulator
}
* Accumulates value starting with [initial] value and applying [operation] from right to left
* to each character and current accumulator value.
* Returns the specified [initial] value if the char sequence is empty.
* @param [operation] function that takes a character and current accumulator value, and calculates the next accumulator value.
*public inline fun <R> CharSequence.foldRight(initial: R, operation: (Char, acc: R) -> R): R {
    var index = lastIndex
    var accumulator = initial
    while (index >= 0) {
        accumulator = operation(get(index--), accumulator)
    }
    return accumulator
}
* Accumulates value starting with [initial] value and applying [operation] from right to left
* to each character with its index in the original char sequence and current accumulator value.
* Returns the specified [initial] value if the

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char sequence is empty.\n * \n * @param [operation] function that takes the index of a character, the character
itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R>
CharSequence.foldRightIndexed(initial: R, operation: (index: Int, Char, acc: R) -> R): R {\n    var index =
lastIndex\n    var accumulator = initial\n    while (index >= 0) {\n        accumulator = operation(index, get(index),
accumulator)\n        --index\n    }\n    return accumulator\n}\n\n/**\n * Performs the given [action] on each
character.\n */\npublic inline fun CharSequence.forEach(action: (Char) -> Unit): Unit {\n    for (element in this)
action(element)\n}\n\n/**\n * Performs the given [action] on each character, providing sequential index with the
character.\n * @param [action] function that takes the index of a character and the character itself\n * and performs
the action on the character.\n */\npublic inline fun CharSequence.forEachIndexed(action: (index:
Int, Char) -> Unit): Unit {\n    var index = 0\n    for (item in this) action(index++, item)\n}\n\n/**\n * Returns the
largest character.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\n\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxOrThrow")\n@Suppress("CONFLICTING_OVERLOA
DS")\npublic fun CharSequence.max(): Char {\n    if (isEmpty()) throw NoSuchElementException()\n    var max =
this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (max < e) max = e\n    }\n    return max\n}\n\n/**\n * Returns the first character yielding the largest value of the given function.\n * \n * @throws
NoSuchElementException if the char sequence is empty.\n * \n * @sample
samples.collections.Collections.Aggregates.maxBy\n */\n\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxByOrThrow")\n@Suppress("CONFLICTING_OVERL
OADS")\npublic inline fun <R : Comparable<R>> CharSequence.maxBy(selector: (Char) -> R): Char {\n    if
(isEmpty()) throw NoSuchElementException()\n\n    var maxElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return maxElem\n    var maxValue =
selector(maxElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (maxValue <
v) {\n            maxElem = e\n            maxValue = v\n        }\n    }\n    return maxElem\n}\n\n/**\n * Returns the first
character yielding the largest value of the given function or `null` if there are no characters.\n * \n * @sample
samples.collections.Collections.Aggregates.maxByOrNull\n */\n\n@SinceKotlin("1.4")\npublic inline fun <R :
Comparable<R>> CharSequence.maxByOrNull(selector: (Char) -> R): Char? {\n    if (isEmpty()) return null\n    var
maxElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return maxElem\n    var maxValue =
selector(maxElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (maxValue < v)
{\n            maxElem = e\n            maxValue = v\n        }\n    }\n    return maxElem\n}\n\n/**\n * Returns the largest value among all values
produced by [selector] function\n * applied to each character in the char sequence.\n * \n * If any of values produced
by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the char
sequence is empty.\n */\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.maxOf(selector: (Char) ->
Double): Double {\n    if (isEmpty()) throw NoSuchElementException()\n    var maxValue = selector(this[0])\n    for
(i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return
maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to
each character in the char sequence.\n * \n * If any of values produced
by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the char
sequence is empty.\n */\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.maxOf(selector: (Char) ->
Float): Float {\n    if (isEmpty()) throw NoSuchElementException()\n    var maxValue = selector(this[0])\n    for (i
in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return
maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to
each character in the char sequence.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\n\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

```

```

ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
CharSequence.maxOf(selector:
(Char) -> R): R {\n if (isEmpty()) throw NoSuchElementException()\n var maxValue = selector(this[0])\n for
(i in 1..lastIndex) {\n val v = selector(this[i])\n if (maxValue < v) {\n maxValue = v\n }\n }\n
return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n *
applied to each character in the char sequence or `null` if there are no characters.\n * \n * If any of values produced
by [selector] function is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.maxOfOrNull(selector:
(Char) -> Double): Double? {\n if (isEmpty()) return null\n var maxValue = selector(this[0])\n for (i in
1..lastIndex) {\n val v = selector(this[i])\n maxValue = maxOf(maxValue, v)\n }\n return
maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to
each character in the char sequence or `null` if there are no characters.\n * \n * If any of values produced by
[selector] function is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.maxOfOrNull(selector:
(Char) -> Float): Float? {\n if (isEmpty()) return null\n var maxValue = selector(this[0])\n for (i in
1..lastIndex) {\n val v = selector(this[i])\n maxValue = maxOf(maxValue, v)\n }\n return
maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to
each character in the char sequence or `null` if there are no characters.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <R : Comparable<R>> CharSequence.maxOfOrNull(selector: (Char) -> R): R? {\n if (isEmpty()) return
null\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if
(maxValue < v) {\n maxValue = v\n }\n }\n return maxValue\n}\n\n/**\n * Returns the largest value
according to the provided [comparator]\n * among all values produced by [selector] function applied to each
character in the char sequence.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharSequence.maxOfWith(comparator:
Comparator<in R>, selector: (Char) -> R): R {\n if (isEmpty()) throw NoSuchElementException()\n var
maxValue = selector(this[0])\n for
(i in 1..lastIndex) {\n val v = selector(this[i])\n if (comparator.compare(maxValue, v) < 0) {\n
maxValue = v\n }\n }\n return maxValue\n}\n\n/**\n * Returns the largest value according to the provided
[comparator]\n * among all values produced by [selector] function applied to each character in the char sequence or
`null` if there are no characters.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
CharSequence.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Char) -> R): R? {\n if (isEmpty())
return null\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if
(comparator.compare(maxValue, v) < 0) {\n maxValue = v\n }\n }\n return maxValue\n}\n\n/**\n *
Returns the largest character or `null` if there are no characters.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
fun CharSequence.maxOrNull(): Char? {\n if (isEmpty()) return null\n var max = this[0]\n for (i in
1..lastIndex) {\n val e = this[i]\n if (max < e) max = e\n }\n return max\n}\n\n/**\n * Returns the first
character having the largest value according to the provided [comparator].\n * \n * @throws
NoSuchElementException if the char sequence is empty.\n
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxWithOrThrow")\n@Suppress("CONFLICTING_OVER
LOADS")\npublic fun CharSequence.maxWith(comparator: Comparator<in Char>): Char {\n if (isEmpty())
throw NoSuchElementException()\n var max = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if

```

```

(comparator.compare(max, e) < 0) max = e\n } \n return max\n}\n\n/**\n * Returns the first character having the
largest value according to the provided [comparator] or `null` if there are no characters.\n
*\n@SinceKotlin("1.4")\npublic fun CharSequence.maxWithOrNull(comparator:
Comparator<in Char>): Char? {\n if (isEmpty()) return null\n var max = this[0]\n for (i in 1..lastIndex) {\n
val e = this[i]\n if (comparator.compare(max, e) < 0) max = e\n }\n return max\n}\n\n/**\n * Returns the
smallest character.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minOrThrow")\n@Suppress("CONFLICTING_OVERLOA
DS")\npublic fun CharSequence.min(): Char {\n if (isEmpty()) throw NoSuchElementException()\n var min =
this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (min > e) min = e\n }\n return min\n}\n\n/**\n *
Returns the first character yielding the smallest value of the given function.\n * \n * @throws
NoSuchElementException if the char sequence is empty.\n * \n * @sample
samples.collections.Collections.Aggregates.minBy\n
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minByOrThrow")\n@Suppress("CONFLICTING_OVERLO
ADS")\npublic
inline fun <R : Comparable<R>> CharSequence.minBy(selector: (Char) -> R): Char {\n if (isEmpty()) throw
NoSuchElementException()\n var minElem = this[0]\n val lastIndex = this.lastIndex\n if (lastIndex == 0)
return minElem\n var minValue = selector(minElem)\n for (i in 1..lastIndex) {\n val e = this[i]\n val v =
selector(e)\n if (minValue > v) {\n minElem = e\n minValue = v\n }\n }\n return
minElem\n}\n\n/**\n * Returns the first character yielding the smallest value of the given function or `null` if there
are no characters.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n
*\n@SinceKotlin("1.4")\npublic inline fun <R : Comparable<R>> CharSequence.minByOrNull(selector: (Char) -
> R): Char? {\n if (isEmpty()) return null\n var minElem = this[0]\n val lastIndex = this.lastIndex\n if
(lastIndex == 0) return minElem\n var minValue = selector(minElem)\n
for (i in 1..lastIndex) {\n val e = this[i]\n val v = selector(e)\n if (minValue > v) {\n minElem
= e\n minValue = v\n }\n }\n return minElem\n}\n\n/**\n * Returns the smallest value among all
values produced by [selector] function\n * applied to each character in the char sequence.\n * \n * If any of values
produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException
if the char sequence is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.minOf(selector: (Char) ->
Double): Double {\n if (isEmpty()) throw NoSuchElementException()\n var minValue = selector(this[0])\n for
(i in 1..lastIndex) {\n val v = selector(this[i])\n minValue = minOf(minValue, v)\n }\n return
minValue\n}\n\n/**\n * Returns the smallest
value among all values produced by [selector] function\n * applied to each character in the char sequence.\n * \n *
If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws
NoSuchElementException if the char sequence is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.minOf(selector: (Char) ->
Float): Float {\n if (isEmpty()) throw NoSuchElementException()\n var minValue = selector(this[0])\n for (i in
1..lastIndex) {\n val v = selector(this[i])\n minValue = minOf(minValue, v)\n }\n return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each character in the char sequence.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <R : Comparable<R>> CharSequence.minOf(selector: (Char) -> R): R {\n if (isEmpty()) throw
NoSuchElementException()\n var minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v =
selector(this[i])\n if (minValue > v) {\n minValue = v\n }\n }\n return minValue\n}\n\n/**\n *
Returns the smallest value among all values produced by [selector] function\n * applied to each character in the char

```

sequence or `null` if there are no characters.\n \* \n \* If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.minOrNull(selector:\n(Char) -> Double): Double? {\n    if (isEmpty()) return null\n    var\n    minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        minValue =\n        minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values produced\n * by [selector] function\n * applied to each character\n * in the char sequence or `null` if there are no characters.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.minOrNull(selector:\n(Char) -> Float): Float? {\n    if (isEmpty()) return null\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex)\n    {\n        val v = selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each character\n * in the char sequence or `null` if there are no characters.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>\nCharSequence.minOrNull(selector: (Char) -> R): R? {\n    if (isEmpty()) return null\n    var minValue =\n    selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if (minValue > v) {\n            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value according to the provided\n * [comparator]\n * among all values produced by [selector] function applied to each character in the char sequence.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharSequence.minWith(comparator:\nComparator<in R>, selector: (Char) -> R): R {\n    if (isEmpty()) throw NoSuchElementException()\n    var\n    minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if\n        (comparator.compare(minValue, v) > 0) {\n            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector]\n * function applied to each character in the char sequence or `null` if there are no characters.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>\nCharSequence.minWithOrNull(comparator: Comparator<in R>, selector: (Char) -> R): R? {\n    if (isEmpty())\n    return null\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if\n        (comparator.compare(minValue, v) > 0)\n        {\n            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest character or `null` if\n * there are no characters.\n
```

```
*\n@SinceKotlin("1.4")\npublic fun CharSequence.minOrNull(): Char? {\n    if\n    (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (min > e) min =\n        e\n    }\n    return min\n}\n\n/**\n * Returns the first character having the smallest value according to the provided\n * [comparator].\n * \n * @throws NoSuchElementException if the char sequence is empty.\n
```

```
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minWithOrThrow")\n@Suppress("CONFLICTING_OVERLOADS")\npublic fun CharSequence.minWith(comparator: Comparator<in Char>): Char {\n    if (isEmpty()) throw\n    NoSuchElementException()\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if\n        (comparator.compare(min, e) > 0) min = e\n    }\n    return min\n}\n\n/**\n * Returns the first character having\n * the smallest value according to the provided [comparator] or `null` if there are no characters.\n
```

```
*\n@SinceKotlin("1.4")\npublic fun CharSequence.minWithOrNull(comparator: Comparator<in Char>): Char?\n{\n    if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if\n        (comparator.compare(min, e) > 0) min = e\n    }\n    return min\n}\n\n/**\n * Returns `true` if the char sequence has\n * no characters.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun
```

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CharSequence.none(): Boolean {
    return isEmpty()
}

Returns `true` if no characters match the given [predicate].

@sample samples.collections.Collections.Aggregates.noneWithPredicate

public inline fun
CharSequence.none(predicate: (Char) -> Boolean): Boolean {
    for (element in this) if (predicate(element)) return
    false
    return true
}

Performs the given [action] on each character and returns the char sequence
itself afterwards.

@SinceKotlin("1.1")
public inline fun <S : CharSequence> S.onEach(action: (Char) ->
Unit): S {
    return apply { for (element in this) action(element) }
}

Performs the given [action] on
each character, providing sequential index with the character,
and returns the char sequence itself afterwards.

@param [action] function that takes the index of a character and the character itself
and performs the action on
the character.

@SinceKotlin("1.4")
public inline fun <S : CharSequence> S.onEachIndexed(action: (index:
Int, Char) -> Unit): S {
    return apply { forEachIndexed(action) }
}

Accumulates value starting with
the first character and applying [operation] from left to right
to current accumulator value and each character.

Throws an exception if this char sequence is empty. If the char sequence can be empty in an expected way,
please use [reduceOrNull] instead. It returns `null` when its receiver
is empty.

@param [operation] function that takes current accumulator value and a character,
and
calculates the next accumulator value.

@sample samples.collections.Collections.Aggregates.reduce

public inline fun
CharSequence.reduce(operation: (acc: Char, Char) -> Char): Char {
    if (isEmpty())
    throw UnsupportedOperationException("Empty char sequence can't be reduced.")
    var accumulator = this[0]
    for (index in 1..lastIndex) {
        accumulator = operation(accumulator, this[index])
    }
    return
    accumulator
}

Accumulates value starting with the first character and applying [operation] from left to
right
to current accumulator value and each character with its index in the original char sequence.

Throws an exception if this char sequence is empty. If the char sequence can be empty in an expected way,
please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.

@param [operation] function that takes the index of a character, current accumulator value and the character
itself,
and calculates the next accumulator value.

@sample
samples.collections.Collections.Aggregates.reduce

public inline fun
CharSequence.reduceIndexed(operation:
(index: Int, acc: Char, Char) -> Char): Char {
    if (isEmpty())
    throw
    UnsupportedOperationException("Empty char sequence can't be reduced.")
    var accumulator = this[0]
    for (index in 1..lastIndex) {
        accumulator = operation(index, accumulator, this[index])
    }
    return
    accumulator
}

Accumulates value starting with the first character and applying [operation] from left to
right
to current accumulator value and each character with its index in the original char sequence.

Returns `null` if the char sequence is empty.

@param [operation] function that takes the index of a
character, current accumulator value and the character itself,
and calculates the next accumulator value.

@sample
samples.collections.Collections.Aggregates.reduceOrNull

@SinceKotlin("1.4")
public inline fun
CharSequence.reduceIndexedOrNull(operation: (index: Int, acc: Char, Char) -> Char): Char? {
    if (isEmpty())
    return null
    var accumulator = this[0]
    for (index in 1..lastIndex) {
        accumulator = operation(index,
        accumulator, this[index])
    }
    return accumulator
}

Accumulates value starting with the first
character and applying [operation] from left to right
to current accumulator value and each character.

Returns `null` if the char sequence is empty.

@param [operation] function that takes current accumulator
value and a character,
and calculates the next accumulator value.

@sample
samples.collections.Collections.Aggregates.reduceOrNull

@SinceKotlin("1.4")
@WasExperimental(ExperimentalStdlibApi::class)
public inline fun
CharSequence.reduceOrNull(operation:
(acc: Char, Char) -> Char): Char? {
    if (isEmpty())
    return null
    var accumulator = this[0]
    for (index
    in 1..lastIndex) {
        accumulator = operation(accumulator, this[index])
    }
    return accumulator
}

Accumulates value starting with the last character and applying [operation] from right to left
to each character
and current accumulator value.

Throws an exception if this char sequence is empty. If the char sequence can
be empty in an expected way,
please use [reduceRightOrNull] instead. It returns `null` when its receiver is

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empty.\n * \n * @param [operation] function that takes a character and current accumulator value,\n * and calculates
the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n * \npublic
inline fun CharSequence.reduceRight(operation: (Char, acc: Char) -> Char): Char {\n  var index = lastIndex\n  if
(index < 0) throw UnsupportedOperationException("\nEmpty
char sequence can't be reduced.")\n  var accumulator = get(index--)\n  while (index >= 0) {\n    accumulator =
operation(get(index--), accumulator)\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with the
last character and applying [operation] from right to left\n * to each character with its index in the original char
sequence and current accumulator value.\n * \n * Throws an exception if this char sequence is empty. If the char
sequence can be empty in an expected way,\n * please use [reduceRightIndexedOrNull] instead. It returns `null`
when its receiver is empty.\n * \n * @param [operation] function that takes the index of a character, the character
itself and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceRight\n * \npublic inline fun
CharSequence.reduceRightIndexed(operation: (index: Int, Char, acc: Char) -> Char): Char {\n  var index
= lastIndex\n  if (index < 0) throw UnsupportedOperationException("\nEmpty char sequence can't be reduced.")\n
var accumulator = get(index--)\n  while (index >= 0) {\n    accumulator = operation(index, get(index),
accumulator)\n    --index\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with the last
character and applying [operation] from right to left\n * to each character with its index in the original char sequence
and current accumulator value.\n * \n * Returns `null` if the char sequence is empty.\n * \n * @param [operation]
function that takes the index of a character, the character itself and current accumulator value,\n * and calculates the
next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n
*\n * \n@SinceKotlin("1.4")\npublic inline fun CharSequence.reduceRightIndexedOrNull(operation: (index: Int, Char,
acc: Char) -> Char): Char? {\n  var index = lastIndex\n  if (index < 0) return null\n
  var accumulator = get(index--)\n  while (index >= 0) {\n    accumulator = operation(index, get(index),
accumulator)\n    --index\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with the last
character and applying [operation] from right to left\n * to each character and current accumulator value.\n * \n *
Returns `null` if the char sequence is empty.\n * \n * @param [operation] function that takes a character and current
accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceRightOrNull\n
*\n * \n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun
CharSequence.reduceRightOrNull(operation: (Char, acc: Char) -> Char): Char? {\n  var index = lastIndex\n  if
(index < 0) return null\n  var accumulator = get(index--)\n  while (index >= 0) {\n    accumulator =
operation(get(index--), accumulator)\n  }\n  return accumulator\n}\n\n/**\n * Returns a list containing successive
accumulation values generated by applying [operation] from left to right\n * to each character and current accumulator
value that starts with [initial] value.\n * \n * Note that `acc` value passed
to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n *
\n * \n * @param [operation] function that takes current accumulator value and a character, and calculates the next
accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n
*\n * \n@SinceKotlin("1.4")\npublic inline fun <R> CharSequence.runningFold(initial: R, operation: (acc: R, Char) ->
R): List<R> {\n  if (isEmpty()) return listOf(initial)\n  val result = ArrayList<R>(length + 1).apply { add(initial)
}\n  var accumulator = initial\n  for (element in this) {\n    accumulator = operation(accumulator, element)\n
result.add(accumulator)\n  }\n  return result\n}\n\n/**\n * Returns
a list containing successive accumulation values generated by applying [operation] from left to right\n * to each
character, its index in the original char sequence and current accumulator value that starts with [initial] value.\n *
\n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the
previous value in resulting list.\n * \n * @param [operation] function that takes the index of a character, current
accumulator value\n * and the character itself, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.runningFold\n * \n@SinceKotlin("1.4")\npublic inline fun <R>
CharSequence.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Char) -> R): List<R> {\n  if

```

```

(isEmpty()) return listOf(initial)\n    val result = ArrayList<R>(length + 1).apply { add(initial) }\n    var accumulator
= initial\n    for (index in indices) {\n        accumulator = operation(index, accumulator,
    this[index])\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive
accumulation values generated by applying [operation] from left to right\n * to each character and current
accumulator value that starts with the first character of this char sequence.\n * \n * Note that `acc` value passed to
[operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n *
@param [operation] function that takes current accumulator value and a character, and calculates the next
accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n
*\n@SinceKotlin("1.4")\npublic inline fun CharSequence.runningReduce(operation: (acc: Char, Char) -> Char):
List<Char> {\n    if (isEmpty()) return emptyList()\n    var accumulator = this[0]\n    val result =
ArrayList<Char>(length).apply { add(accumulator) }\n    for (index in 1 until length) {\n        accumulator =
operation(accumulator,
    this[index])\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive
accumulation values generated by applying [operation] from left to right\n * to each character, its index in the
original char sequence and current accumulator value that starts with the first character of this char sequence.\n * \n *
Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the
previous value in resulting list.\n * \n * @param [operation] function that takes the index of a character, current
accumulator value\n * and the character itself, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.runningReduce\n
*\n@SinceKotlin("1.4")\npublic inline fun
CharSequence.runningReduceIndexed(operation: (index: Int, acc: Char, Char) -> Char): List<Char> {\n    if
(isEmpty()) return emptyList()\n    var accumulator = this[0]\n    val result =
ArrayList<Char>(length).apply { add(accumulator) }\n    for (index in 1 until length) {\n        accumulator =
operation(index, accumulator, this[index])\n        result.add(accumulator)\n    }\n    return result\n}\n\n/**\n *
Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to
each character and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to
[operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n *
@param [operation] function that takes current accumulator value and a character, and calculates the next
accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <R>
CharSequence.scan(initial: R, operation: (acc: R, Char) -> R): List<R> {\n    return runningFold(initial,
operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n *
to each character, its index in the original char sequence and current accumulator value that starts with [initial]
value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would
affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of a character,
current accumulator value\n * and the character itself, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.scan\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <R>
CharSequence.scanIndexed(initial: R, operation: (index: Int, acc: R, Char) -> R): List<R> {\n    return
runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each character in the char sequence.\n
*\n@Deprecated("Use sumOf instead.")\nReplaceWith("this.sumOf(selector)")\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline fun
CharSequence.sumBy(selector: (Char) -> Int): Int {\n    var sum: Int = 0\n    for (element in this) {\n        sum +=
selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each character in the char sequence.\n
*\n@Deprecated("Use sumOf instead.")\nReplaceWith("this.sumOf(selector)")\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic inline fun
CharSequence.sumByDouble(selector: (Char) -> Double): Double {\n    var sum: Double = 0.0\n    for (element in

```



```

this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each character in the char sequence.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfDouble")\n@kotlin.internal.InlineOnly\npublic
inline fun CharSequence.sumOf(selector: (Char) -> Double): Double {\n  var sum: Double = 0.toDouble()\n  for
(element in this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values
produced by [selector] function applied to each character in the char sequence.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfInt")\n@kotlin.internal.InlineOnly\npublic inline fun
CharSequence.sumOf(selector: (Char) -> Int): Int {\n  var sum: Int = 0.toInt()\n  for (element in this) {\n    sum
+= selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector]
function applied to each character in the char sequence.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfLong")\n@kotlin.internal.InlineOnly\npublic
inline fun CharSequence.sumOf(selector: (Char) -> Long): Long {\n  var sum: Long = 0.toLong()\n  for (element
in this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced
by [selector] function applied to each character in the char sequence.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfUInt")\n@WasExperimental(ExperimentalUnsignedType
s::class)\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.sumOf(selector: (Char) -> UInt): UInt {\n
var sum: UInt = 0.toUInt()\n  for (element in this) {\n    sum += selector(element)\n  }\n  return
sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each character in the char
sequence.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName("sumOfULong")\n@WasExperimental(ExperimentalUnsignedTy
pes::class)\n@kotlin.internal.InlineOnly\npublic
inline fun CharSequence.sumOf(selector: (Char) -> ULong): ULong {\n  var sum: ULong = 0.toULong()\n  for
(element in this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Splits this char sequence into
a list of strings each not exceeding the given [size].\n * \n * The last string in the resulting list may have fewer
characters than the given [size].\n * \n * @param size the number of elements to take in each string, must be positive
and can be greater than the number of elements in this char sequence.\n * \n * @sample
samples.text.Strings.chunked\n *\n@SinceKotlin("1.2")\npublic fun CharSequence.chunked(size: Int):
List<String> {\n  return windowed(size, size, partialWindows = true)\n}\n\n/**\n * Splits this char sequence into
several
char sequences each not exceeding the given [size]\n * and applies the given [transform] function to an each.\n * \n
* @return list of results of the [transform] applied to an each char sequence.\n * \n * Note that the char sequence
passed to the [transform] function is ephemeral and is valid only inside that function.\n * You should not store it or
allow it to escape in some way, unless you made a snapshot of it.\n * The last char sequence may have fewer
characters than the given [size].\n * \n * @param size the number of elements to take in each char sequence, must be
positive and can be greater than the number of elements in this char sequence.\n * \n * @sample
samples.text.Strings.chunkedTransform\n *\n@SinceKotlin("1.2")\npublic fun <R> CharSequence.chunked(size:
Int, transform: (CharSequence) -> R): List<R> {\n  return windowed(size, size, partialWindows = true, transform =
transform)\n}\n\n/**\n * Splits this char sequence into a sequence of strings each not exceeding the
given [size].\n * \n * The last string in the resulting sequence may have fewer characters than the given [size].\n * \n
* @param size the number of elements to take in each string, must be positive and can be greater than the number of
elements in this char sequence.\n * \n * @sample samples.collections.Collections.Transformations.chunked\n
*\n@SinceKotlin("1.2")\npublic fun CharSequence.chunkedSequence(size: Int): Sequence<String> {\n  return
chunkedSequence(size) { it.toString() }\n}\n\n/**\n * Splits this char sequence into several char sequences each not

```

exceeding the given [size] and applies the given [transform] function to an each. @return sequence of results of the [transform] applied to an each char sequence. Note that the char sequence passed to the [transform] function is ephemeral and is valid only inside that function. You should not store it or allow it to escape in some way, unless you made a snapshot of it. The last char sequence may have fewer characters than the given [size].

@param size the number of elements to take in each char sequence, must be positive and can be greater than the number of elements in this char sequence.

@sample samples.text.Strings.chunkedTransformToSequence

```

@SinceKotlin("1.2")
public fun <R>
CharSequence.chunkedSequence(size: Int, transform: (CharSequence) -> R): Sequence<R> {
    return
    windowedSequence(size, size, partialWindows = true, transform = transform)
}

```

Splits the original char sequence into pair of char sequences, where \*first\* char sequence contains characters for which [predicate] yielded `true`, while \*second\* char sequence contains characters for which [predicate] yielded `false`.

@sample samples.text.Strings.partition

```

public inline fun CharSequence.partition(predicate: (Char) ->
Boolean): Pair<CharSequence, CharSequence> {
    val first = StringBuilder()
    val second = StringBuilder()
    for (element in this)
        if (predicate(element))
            first.append(element)
        else
            second.append(element)
    return Pair(first, second)
}

```

Splits the original string into pair of strings, where \*first\* string contains characters for which [predicate] yielded `true`, while \*second\* string contains characters for which [predicate] yielded `false`.

@sample samples.text.Strings.partition

```

public inline fun
String.partition(predicate: (Char) -> Boolean): Pair<String, String> {
    val first = StringBuilder()
    val second =
    StringBuilder()
    for (element in this)
        if (predicate(element))
            first.append(element)
        else
            second.append(element)
    return Pair(first.toString(), second.toString())
}

```

Returns a list of snapshots of the window of the given [size] sliding along this char sequence with the given [step], where each snapshot is a string. Several last strings may have fewer characters than the given [size]. Both [size] and [step] must be positive and can be greater than the number of elements in this char sequence.

@param size the number of elements to take in each window

@param step the number of elements to move the window forward by on an each step, by default 1

@param partialWindows controls whether or not to keep partial windows in the end if any, by default `false` which means partial windows won't be preserved

@sample samples.collections.Sequences.Transformations.takeWindows

```

@SinceKotlin("1.2")
public fun
CharSequence.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false): List<String> {
    return
    windowed(size, step, partialWindows) { it.toString() }
}

```

Returns a list of results of applying the given [transform] function to an each char sequence representing a view over the window of the given [size] sliding along this char sequence with the given [step]. Note that the char sequence passed to the [transform] function is ephemeral and is valid only inside that function. You should not store it or allow it to escape in some way, unless you made a snapshot of it. Several last char sequences may have fewer characters than the given [size]. Both [size] and [step] must be positive and can be greater than the number of elements in this char sequence.

@param size the number of elements to take in each window

@param step the number of elements to move the window forward by on an each step, by default 1

@param partialWindows controls whether or not to keep partial windows in the end if any, by default `false` which means partial windows won't be preserved

@sample samples.collections.Sequences.Transformations.averageWindows

```

@SinceKotlin("1.2")
public fun <R>
CharSequence.windowed(size: Int, step: Int = 1, partialWindows:
Boolean = false, transform:
(CharSequence) -> R): List<R> {
    checkWindowSizeStep(size, step)
    val thisSize = this.length
    val resultCapacity = thisSize / step + if (thisSize % step == 0) 0 else 1
    val result = ArrayList<R>(resultCapacity)
    var index = 0
    while (index in 0 until thisSize)
        val end = index + size
        val coercedEnd = if (end < 0
|| end > thisSize)
            { if (partialWindows) thisSize else break }
        else end
        result.add(transform(subSequence(index,
coercedEnd)))
        index += step
    return result
}

```

Returns a sequence of snapshots of the

window of the given [size]\n \* sliding along this char sequence with the given [step], where each\n \* snapshot is a string.\n \* \n \* Several last strings may have fewer characters than the given [size].\n \* \n \* Both [size] and [step] must be positive and can be greater than the number of elements in this char sequence.\n \* @param size the number of elements to take in each window\n \* @param step

the number of elements to move the window forward by on an each step, by default 1\n \* @param partialWindows controls whether or not to keep partial windows in the end if any,\n \* by default `false` which means partial windows won't be preserved\n \* \n \* @sample samples.collections.Sequences.Transformations.takeWindows\n \* \n \* @SinceKotlin("1.2")\n \* public fun CharSequence.windowedSequence(size: Int, step: Int = 1, partialWindows: Boolean = false): Sequence<String> {\n \* return windowedSequence(size, step, partialWindows) { it.toString() }\n \* }\n \* \n \* Returns a sequence of results of applying the given [transform] function to\n \* an each char sequence representing a view over the window of the given [size]\n \* sliding along this char sequence with the given [step].\n \* \n \* Note that the char sequence passed to the [transform] function is ephemeral and is valid only inside that function.\n \* You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n \* \n \* Several last char sequences may have fewer characters than the given [size].\n \* \n \* Both [size] and [step] must be positive and can be greater than the number of elements in this char sequence.\n \* @param size the number of elements to take in each window\n \* @param step the number of elements to move the window forward by on an each step, by default 1\n \* @param partialWindows controls whether or not to keep partial windows in the end if any,\n \* by default `false` which means partial windows won't be preserved\n \* \n \* @sample samples.collections.Sequences.Transformations.averageWindows\n \* \n \* @SinceKotlin("1.2")\n \* public fun <R> CharSequence.windowedSequence(size: Int, step: Int = 1, partialWindows: Boolean = false, transform: (CharSequence) -> R): Sequence<R> {\n \* checkWindowSizeStep(size, step)\n \* val windows = (if (partialWindows) indices else 0 until length - size + 1) step step\n \* return windows.asSequence().map { index ->\n \* val end = index + size\n \* val coercedEnd = if (end < 0 || end > length) length else end\n \* transform(subSequence(index, coercedEnd))\n \* }\n \* }\n \* \n \* Returns a list of pairs built from the characters of `this` and the [other] char sequences with the same index\n \* The returned list has length of the shortest char sequence.\n \* \n \* @sample samples.text.Strings.zip\n \* \n \* public infix fun CharSequence.zip(other: CharSequence): List<Pair<Char, Char>> {\n \* return zip(other) { c1, c2 -> c1 to c2 }\n \* }\n \* \n \* Returns a list of values built from the characters of `this` and the [other] char sequences with the same index\n \* using the provided [transform] function applied to each pair of characters.\n \* \n \* The returned list has length of the shortest char sequence.\n \* \n \* @sample samples.text.Strings.zipWithTransform\n \* \n \* public inline fun <V> CharSequence.zip(other: CharSequence, transform: (a: Char, b: Char) -> V): List<V> {\n \* val length = minOf(this.length, other.length)\n \* val list = ArrayList<V>(length)\n \* for (i in 0 until length) {\n \* list.add(transform(this[i], other[i]))\n \* }\n \* return list\n \* }\n \* \n \* Returns a list of pairs of each two adjacent characters in this char sequence.\n \* \n \* The returned list is empty if this char sequence contains less than two characters.\n \* \n \* @sample samples.collections.Collections.Transformations.zipWithNext\n \* \n \* @SinceKotlin("1.2")\n \* public fun CharSequence.zipWithNext(): List<Pair<Char, Char>> {\n \* return zipWithNext { a, b -> a to b }\n \* }\n \* \n \* Returns a list containing the results of applying the given [transform] function\n \* to an each pair of two adjacent characters in this char sequence.\n \* \n \* The returned list is empty if this char sequence contains less than two characters.\n \* \n \* @sample samples.collections.Collections.Transformations.zipWithNextToFindDeltas\n \* \n \* @SinceKotlin("1.2")\n \* public inline fun <R> CharSequence.zipWithNext(transform: (a: Char, b: Char) -> R): List<R> {\n \* val size = length - 1\n \* if (size < 1) return emptyList()\n \* val result = ArrayList<R>(size)\n \* for (index in 0 until size) {\n \* result.add(transform(this[index], this[index + 1]))\n \* }\n \* return result\n \* }\n \* \n \* Creates an [Iterable] instance that wraps the original char sequence returning its characters when being iterated.\n \* \n \* public fun CharSequence.asIterable(): Iterable<Char> {\n \* if (this is String && isEmpty()) return emptyList()\n \* return Iterable { this.iterator() }\n \* }\n \* \n \* Creates a [Sequence] instance that wraps the original char sequence

```

returning its characters when being iterated.\n */\npublic fun CharSequence.asSequence(): Sequence<Char> {\n    if
(this is String && isEmpty()) return emptySequence()\n    return Sequence { this.iterator() }\n}\n\n"/**\n *
Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is
governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("StringsKt")\n\npackage
kotlin.text\nimport kotlin.contracts.contract\nimport kotlin.jvm.JvmName\n/**\n * Returns a copy of this string
converted to upper case using the rules of the default locale.\n */\n@Deprecated("Use uppercase() instead.",
ReplaceWith("uppercase()"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic expect fun
String.toUpperCase(): String\n/**\n * Returns a copy of this string converted to upper case using Unicode
mapping rules of the invariant locale.\n */\n * This function supports one-to-many and many-to-one character
mapping,\n * thus the length of the returned string can be different from the length of the original string.\n */\n *
@sample samples.text.Strings.uppercase\n
*/\n\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun
String.uppercase(): String\n/**\n * Returns a copy of this string converted to lower case using the rules of
the default locale.\n */\n@Deprecated("Use lowercase() instead.",
ReplaceWith("lowercase()"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic expect fun
String.toLowerCase(): String\n/**\n * Returns a copy of this string converted to lower case using Unicode
mapping rules of the invariant locale.\n */\n * This function supports one-to-many and many-to-one character
mapping,\n * thus the length of the returned string can be different from the length of the original string.\n */\n *
@sample samples.text.Strings.lowercase\n
*/\n\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun
String.lowercase(): String\n/**\n * Returns a copy of this string having its first letter titlecased using the rules of
the default locale,\n * or the original string if it's empty or already starts with a title case letter.\n */\n * The title case
of a character is usually the same as its upper case with several exceptions.\n * The particular list of characters with
the special title case form depends on the underlying platform.\n */\n * @sample samples.text.Strings.capitalize\n
*/\n@Deprecated("Use replaceFirstChar instead.", ReplaceWith("replaceFirstChar { if (it.isLowerCase())
it.titlecase() else it.toString() }"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic expect fun
String.capitalize(): String\n/**\n * Returns a copy of this string having its first letter lowercased using the rules of
the default locale,\n * or the original string if it's empty or already starts with a lower case letter.\n */\n * @sample
samples.text.Strings.decapsialize\n */\n@Deprecated("Use replaceFirstChar instead.",
ReplaceWith("replaceFirstChar { it.lowercase() }"))\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic
expect fun String.decapsialize(): String\n/**\n * Returns a sub sequence of this char sequence having leading and
trailing characters matching the [predicate] removed.\n */\npublic inline fun CharSequence.trim(predicate: (Char)
-> Boolean): CharSequence {\n    var startIndex = 0\n    var endIndex = length - 1\n    var startFound = false\n\n    while (startIndex <= endIndex) {\n        val index = if (!startFound) startIndex else endIndex\n        val match =
predicate(this[index])\n\n        if (!startFound) {\n            if (!match)\n                startFound = true\n            else\n                startIndex += 1\n        } else {\n            if (!match)\n                break\n            else\n                endIndex -= 1\n        }\n    }\n\n    return subSequence(startIndex, endIndex + 1)\n}\n\n/**\n * Returns a string having leading and
trailing characters matching the [predicate] removed.\n */\npublic inline fun String.trim(predicate: (Char) ->
Boolean): String =\n    (this as CharSequence).trim(predicate).toString()\n\n/**\n * Returns a sub sequence of this
char sequence having leading characters matching the [predicate] removed.\n */\npublic inline fun
CharSequence.trimStart(predicate: (Char)
-> Boolean): CharSequence {\n    for (index in this.indices)\n        if (!predicate(this[index]))\n            return
subSequence(index, length)\n\n    return ""\n}\n\n/**\n * Returns a string having leading characters matching the
[predicate] removed.\n */\npublic inline fun String.trimStart(predicate: (Char) -> Boolean): String =\n    (this as
CharSequence).trimStart(predicate).toString()\n\n/**\n * Returns a sub sequence of this char sequence having
trailing characters matching the [predicate] removed.\n */\npublic inline fun CharSequence.trimEnd(predicate:
(Char) -> Boolean): CharSequence {\n    for (index in this.indices.reversed())\n        if (!predicate(this[index]))\n

```



```

[length] at the end with the specified character or space.\n * @param length
the desired string length.\n * @param padChar the character to pad string with, if it has length less than the [length]
specified. Space is used by default.\n * @return Returns a string of length at least [length] consisting of `this` string
appended with [padChar] as many times\n * as are necessary to reach that length.\n * @sample
samples.text.Strings.padEnd\n * \npublic fun String.padEnd(length: Int, padChar: Char = ' '): String =\n (this as
CharSequence).padEnd(length, padChar).toString()\n\n/**\n * Returns `true` if this nullable char sequence is either
`null` or empty.\n * \n * @sample samples.text.Strings.stringOrNullOrNull\n * \n\n\n * @kotlin.internal.InlineOnly\npublic inline fun CharSequence?.isNullOrNull(): Boolean {\n contract {\n
returns(false) implies (this@isNullOrNull != null)\n } \n\n return this == null || this.length == 0\n}\n\n/**\n * Returns `true` if this char sequence is empty (contains no characters).\n * \n * @sample
samples.text.Strings.stringIsNullOrEmpty\n * \n\n\n * @kotlin.internal.InlineOnly\npublic inline fun CharSequence.isEmpty(): Boolean = length == 0\n\n/**\n * Returns `true` if this char sequence is not empty.\n * \n * @sample samples.text.Strings.stringIsNotEmpty\n * \n\n\n * @kotlin.internal.InlineOnly\npublic inline fun CharSequence.isNotEmpty(): Boolean = length > 0\n\n//
implemented differently in JVM and JS\n//public fun String.isBlank(): Boolean = length() == 0 || all {
it.isWhitespace() }\n\n\n/**\n * Returns `true` if this char sequence is not empty and contains some characters
except of whitespace characters.\n * \n * @sample samples.text.Strings.stringIsNotBlank\n * \n\n\n * @kotlin.internal.InlineOnly\npublic inline fun CharSequence.isNotBlank(): Boolean = !isBlank()\n\n\n/**\n * Returns `true` if this nullable char sequence is either `null` or empty or consists solely of whitespace characters.\n * \n * @sample samples.text.Strings.stringOrNullOrNull\n * \n\n\n * @kotlin.internal.InlineOnly\npublic inline fun
CharSequence?.isNullOrNull(): Boolean
{\n contract {\n returns(false) implies (this@isNullOrNull != null)\n } \n\n return this == null ||
this.isBlank()\n}\n\n\n/**\n * Iterator for characters of the given char sequence.\n * \npublic operator fun
CharSequence.iterator(): CharIterator = object : CharIterator() {\n private var index = 0\n public override fun
nextChar(): Char = get(index++)\n\n public override fun hasNext(): Boolean = index < length\n}\n\n\n/** Returns
the string if it is not `null`, or the empty string otherwise. \n * \n * @kotlin.internal.InlineOnly\npublic inline fun
String?.orEmpty(): String = this ?: ""\n\n\n/**\n * Returns this char sequence if it's not empty\n * or the result of
calling [defaultValue] function if the char sequence is empty.\n * \n * @sample samples.text.Strings.stringIfEmpty\n * \n\n\n * @SinceKotlin("1.3")\n * @kotlin.internal.InlineOnly\npublic inline fun <C, R> C.ifEmpty(defaultValue: () ->
R): R where C : CharSequence, C : R =\n if (isEmpty()) defaultValue() else
this\n\n\n/**\n * Returns this char sequence if it is not empty and doesn't consist solely of whitespace characters,\n * or the result of calling [defaultValue] function otherwise.\n * \n * @sample samples.text.Strings.stringIfBlank\n * \n\n\n * @SinceKotlin("1.3")\n * @kotlin.internal.InlineOnly\npublic inline fun <C, R> C.ifBlank(defaultValue: () -> R):
R where C : CharSequence, C : R =\n if (isBlank()) defaultValue() else this\n\n\n/**\n * Returns the range of valid
character indices for this char sequence.\n * \npublic val CharSequence.indices: IntRange\n get() = 0..length -
1\n\n\n/**\n * Returns the index of the last character in the char sequence or -1 if it is empty.\n * \npublic val
CharSequence.lastIndex: Int\n get() = this.length - 1\n\n\n/**\n * Returns `true` if this CharSequence has Unicode
surrogate pair at the specified [index].\n * \npublic fun CharSequence.hasSurrogatePairAt(index: Int): Boolean {\n
return index in 0..length - 2\n && this[index].isHighSurrogate()\n
&& this[index + 1].isLowSurrogate()\n}\n\n\n/**\n * Returns a substring specified by the given [range] of
indices.\n * \npublic fun String.substring(range: IntRange): String = substring(range.start, range.endInclusive +
1)\n\n\n/**\n * Returns a subsequence of this char sequence specified by the given [range] of indices.\n * \npublic fun
CharSequence.subSequence(range: IntRange): CharSequence = subSequence(range.start, range.endInclusive +
1)\n\n\n/**\n * Returns a subsequence of this char sequence.\n * \n * This extension is chosen only for invocation with
old-named parameters.\n * Replace parameter names with the same as those of [CharSequence.subSequence].\n * \n * @kotlin.internal.InlineOnly\n * @Suppress("EXTENSION_SHADOWED_BY_MEMBER") // false
warning\n * @Deprecated("Use parameters named startIndex and endIndex.\", ReplaceWith("subSequence(startIndex
= start, endIndex = end)"))\npublic inline fun String.subSequence(start: Int, end: Int): CharSequence =

```

subSequence(start, end)\n\n/\*\*\n

\* Returns a substring of chars from a range of this char sequence starting at the [startIndex] and ending right before the [endIndex].\n\n \* @param startIndex the start index (inclusive).\n\n \* @param endIndex the end index (exclusive). If not specified, the length of the char sequence is used.\n\n \*/\n\n@kotlin.internal.InlineOnly\n\npublic inline fun CharSequence.substring(startIndex: Int, endIndex: Int = length): String = subSequence(startIndex, endIndex).toString()\n\n\n/\*\*\n\n \* Returns a substring of chars at indices from the specified [range] of this char sequence.\n\n \*/\n\npublic fun CharSequence.substring(range: IntRange): String = subSequence(range.start, range.endInclusive + 1).toString()\n\n\n/\*\*\n\n \* Returns a substring before the first occurrence of [delimiter].\n\n \* If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n\n \*/\n\npublic fun String.substringBefore(delimiter: Char, missingDelimiterValue: String = this): String {\n\n val index = indexOf(delimiter)\n\n return if (index == -1) missingDelimiterValue else substring(0, index)\n\n}\n\n\n/\*\*\n\n \* Returns a substring before the first occurrence of [delimiter].\n\n \* If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n\n \*/\n\npublic fun String.substringBefore(delimiter: String, missingDelimiterValue: String = this): String {\n\n val index = indexOf(delimiter)\n\n return if (index == -1) missingDelimiterValue else substring(0, index)\n\n}\n\n\n/\*\*\n\n \* Returns a substring after the first occurrence of [delimiter].\n\n \* If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n\n \*/\n\npublic fun String.substringAfter(delimiter: Char, missingDelimiterValue: String = this): String {\n\n val index = indexOf(delimiter)\n\n return if (index == -1) missingDelimiterValue else substring(index + 1, length)\n\n}\n\n\n/\*\*\n\n \* Returns a substring after the first occurrence of [delimiter].\n\n \* If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n\n \*/\n\npublic fun String.substringAfter(delimiter: String, missingDelimiterValue: String = this): String {\n\n val index = indexOf(delimiter)\n\n return if (index == -1) missingDelimiterValue else substring(index + delimiter.length, length)\n\n}\n\n\n/\*\*\n\n \* Returns a substring before the last occurrence of [delimiter].\n\n \* If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n\n \*/\n\npublic fun String.substringBeforeLast(delimiter: Char, missingDelimiterValue: String = this): String {\n\n val index = lastIndexOf(delimiter)\n\n return if (index == -1) missingDelimiterValue else substring(0, index)\n\n}\n\n\n/\*\*\n\n \* Returns a substring before the last occurrence of [delimiter].\n\n \* If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n\n \*/\n\npublic fun String.substringBeforeLast(delimiter: String, missingDelimiterValue: String = this): String {\n\n val index = lastIndexOf(delimiter)\n\n return if (index == -1) missingDelimiterValue else substring(0, index)\n\n}\n\n\n/\*\*\n\n \* Returns a substring after the last occurrence of [delimiter].\n\n \* If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n\n \*/\n\npublic fun String.substringAfterLast(delimiter: Char, missingDelimiterValue: String = this): String {\n\n val index = lastIndexOf(delimiter)\n\n return if (index == -1) missingDelimiterValue else substring(index + 1, length)\n\n}\n\n\n/\*\*\n\n \* Returns a substring after the last occurrence of [delimiter].\n\n \* If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n\n \*/\n\npublic fun String.substringAfterLast(delimiter: String, missingDelimiterValue: String = this): String {\n\n val index = lastIndexOf(delimiter)\n\n return if (index == -1) missingDelimiterValue else substring(index + delimiter.length, length)\n\n}\n\n\n/\*\*\n\n \* Returns a char sequence with content of this char sequence where its part at the given range\n\n \* is replaced with the [replacement] char sequence.\n\n \* @param startIndex the index of the first character to be replaced.\n\n \* @param endIndex the index of the first character after the replacement to keep in the string.\n\n \*/\n\npublic fun CharSequence.replaceRange(startIndex: Int, endIndex: Int, replacement: CharSequence): CharSequence {\n\n if (endIndex < startIndex)\n\n throw IndexOutOfBoundsException("\n\nEnd index (\$endIndex) is less than start index (\$startIndex).")\n\n val sb = StringBuilder()\n\n sb.appendRange(this, 0, startIndex)\n\n sb.append(replacement)\n\n sb.appendRange(this, endIndex, length)\n\n return sb\n\n}\n\n\n/\*\*\n\n \* Replaces the part of the string at the given range with the [replacement] char sequence.\n\n \* @param startIndex the index of the first character to be replaced.\n\n \* @param endIndex the index of the first character after the replacement to keep in the string.\n\n \*/\n\n@kotlin.internal.InlineOnly\n\npublic inline fun

```

String.replaceRange(startIndex: Int, endIndex: Int, replacement: CharSequence): String =\n (this as
CharSequence).replaceRange(startIndex, endIndex, replacement).toString()\n\n/**\n * Returns a char sequence with
content of this char sequence where its part at the given [range]\n * is replaced with the [replacement] char
sequence.\n * The end index of the [range] is included in the part to be replaced.\n */\npublic fun
CharSequence.replaceRange(range: IntRange, replacement: CharSequence): CharSequence =\n
replaceRange(range.start, range.endInclusive + 1, replacement)\n\n/**\n * Replace the part of string at the given
[range] with the [replacement] string.\n * The end index of the [range] is included in the part to be replaced.\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun
String.replaceRange(range: IntRange, replacement: CharSequence): String =\n (this as
CharSequence).replaceRange(range, replacement).toString()\n\n/**\n * Returns a char sequence with content of this
char sequence where its part at the given range is removed.\n * @param startIndex the index of the first
character to be removed.\n * @param endIndex the index of the first character after the removed part to keep in the
string.\n * [endIndex] is not included in the removed part.\n */\npublic fun
CharSequence.removeRange(startIndex: Int, endIndex: Int): CharSequence {\n if (endIndex < startIndex)\n
throw IndexOutOfBoundsException("\nEnd index ($endIndex) is less than start index ($startIndex).\n")\n if
(endIndex == startIndex)\n return this.subSequence(0, length)\n val sb = StringBuilder(length - (endIndex -
startIndex))\n sb.appendRange(this, 0, startIndex)\n sb.appendRange(this, endIndex, length)\n return
sb}\n\n/**\n * Removes the part of a
string at a given range.\n * @param startIndex the index of the first character to be removed.\n * @param endIndex
the index of the first character after the removed part to keep in the string.\n * [endIndex] is not included in the
removed part.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.removeRange(startIndex: Int, endIndex:
Int): String =\n (this as CharSequence).removeRange(startIndex, endIndex).toString()\n\n/**\n * Returns a char
sequence with content of this char sequence where its part at the given [range] is removed.\n * The end index of
the [range] is included in the removed part.\n */\npublic fun CharSequence.removeRange(range: IntRange):
CharSequence = removeRange(range.start, range.endInclusive + 1)\n\n/**\n * Removes the part of a string at the
given [range].\n * The end index of the [range] is included in the removed part.\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun String.removeRange(range: IntRange): String =\n (this as
CharSequence).removeRange(range).toString()\n\n * If this char sequence starts with the given [prefix], returns a new char sequence\n * with the prefix removed.
Otherwise, returns a new char sequence with the same characters.\n */\npublic fun
CharSequence.removePrefix(prefix: CharSequence): CharSequence {\n if (startsWith(prefix)) {\n return
subSequence(prefix.length, length)\n }\n return subSequence(0, length)\n}\n\n/**\n * If this string starts with the
given [prefix], returns a copy of this string\n * with the prefix removed. Otherwise, returns this string.\n */\npublic
fun String.removePrefix(prefix: CharSequence): String {\n if (startsWith(prefix)) {\n return
substring(prefix.length)\n }\n return this}\n\n/**\n * If this char sequence ends with the given [suffix], returns
a new char sequence\n * with the suffix removed. Otherwise, returns a new char sequence with the same
characters.\n */\npublic fun CharSequence.removeSuffix(suffix: CharSequence):
CharSequence {\n if (endsWith(suffix)) {\n return subSequence(0, length - suffix.length)\n }\n return
subSequence(0, length)\n}\n\n/**\n * If this string ends with the given [suffix], returns a copy of this string\n * with
the suffix removed. Otherwise, returns this string.\n */\npublic fun String.removeSuffix(suffix: CharSequence):
String {\n if (endsWith(suffix)) {\n return substring(0, length - suffix.length)\n }\n return this}\n\n/**\n * When this char sequence starts with the given [prefix] and ends with the given [suffix],\n * returns a new char
sequence having both the given [prefix] and [suffix] removed.\n * Otherwise returns a new char sequence with the
same characters.\n */\npublic fun CharSequence.removeSurrounding(prefix: CharSequence, suffix: CharSequence):
CharSequence {\n if ((length >= prefix.length + suffix.length) && startsWith(prefix) && endsWith(suffix)) {\n
return subSequence(prefix.length, length - suffix.length)\n }\n return subSequence(0, length)\n}\n\n/**\n * Removes from a string both the given [prefix] and [suffix] if and
only if\n * it starts with the [prefix] and ends with the [suffix].\n * Otherwise returns this string unchanged.\n
*/

```



```

*^public fun String.removeSurrounding(prefix: CharSequence, suffix: CharSequence): String {
    if ((length >= prefix.length + suffix.length) && startsWith(prefix) && endsWith(suffix))
        return substring(prefix.length, length - suffix.length)
    return this
}

* When this char sequence starts with and ends with the given [delimiter],
* returns a new char sequence having this [delimiter] removed both from the start and end.
* Otherwise returns a new char sequence with the same characters.

^public fun
CharSequence.removeSurrounding(delimiter: CharSequence): CharSequence = removeSurrounding(delimiter,
delimiter)

* Removes the given [delimiter] string from both the start and the end of this string
* if and only
if it starts with and ends with the [delimiter].
* Otherwise returns this string unchanged.

^public fun
String.removeSurrounding(delimiter: CharSequence): String = removeSurrounding(delimiter, delimiter)

* Replace part of string before the first occurrence of given delimiter with the [replacement] string.
* If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.

^public fun
String.replaceBefore(delimiter: Char, replacement: String, missingDelimiterValue: String = this): String {
    val index = indexOf(delimiter)
    return if (index == -1) missingDelimiterValue else replaceRange(0, index, replacement)
}

* Replace part of string before the first occurrence of given delimiter with the [replacement] string.
* If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.

^public fun
String.replaceBefore(delimiter: String, replacement: String, missingDelimiterValue: String = this): String {
    val index = indexOf(delimiter)
    return if (index == -1) missingDelimiterValue else replaceRange(0, index, replacement)
}

* Replace part of string after the first occurrence of given delimiter with the [replacement] string.
* If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.

^public fun
String.replaceAfter(delimiter: Char, replacement: String, missingDelimiterValue: String = this): String {
    val index = indexOf(delimiter)
    return if (index == -1) missingDelimiterValue else replaceRange(index + 1, length, replacement)
}

* Replace part of string after the first occurrence of given delimiter with the [replacement] string.
* If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.

^public fun
String.replaceAfter(delimiter: String, replacement: String, missingDelimiterValue: String = this): String {
    val index = indexOf(delimiter)
    return if (index == -1) missingDelimiterValue else replaceRange(index + delimiter.length, length, replacement)
}

* Replace part of string after the last occurrence of given delimiter with the [replacement] string.
* If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.

^public fun
String.replaceAfterLast(delimiter: Char, replacement: String, missingDelimiterValue: String = this): String {
    val index = lastIndexOf(delimiter)
    return if (index == -1) missingDelimiterValue else replaceRange(index + 1, length, replacement)
}

* Replace part of string after the last occurrence of given delimiter with the [replacement] string.
* If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.

^public fun
String.replaceAfterLast(delimiter: String, replacement: String, missingDelimiterValue: String = this): String {
    val index = lastIndexOf(delimiter)
    return if (index == -1) missingDelimiterValue else replaceRange(index + delimiter.length, length, replacement)
}

* Replace part of string before the last occurrence of given delimiter with the [replacement] string.
* If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.

^public fun
String.replaceBeforeLast(delimiter: Char, replacement: String, missingDelimiterValue: String = this): String {
    val index = lastIndexOf(delimiter)
    return if (index == -1) missingDelimiterValue else replaceRange(0, index, replacement)
}

* Replace part of string before the last occurrence of given delimiter with the [replacement] string.
* If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.

^public fun
String.replaceBeforeLast(delimiter: String, replacement: String, missingDelimiterValue: String = this): String {
    val index = lastIndexOf(delimiter)
    return if (index == -1) missingDelimiterValue else replaceRange(0, index, replacement)
}

// JVM- and JS-specific
public fun
String.replace(oldChar: Char, newChar: Char, ignoreCase: Boolean): String
// JVM- and JS-specific
public fun
String.replace(oldValue: String, newValue: String, ignoreCase: Boolean): String

```

Returns a new string obtained by replacing each substring of this char sequence that matches the given regular expression `regex` with the given `replacement`. The `replacement` can consist of any combination of literal text and `$`-substitutions. To treat the replacement string literally escape it with the `[kotlin.text.Regex.Companion.escapeReplacement]` method.

```

public inline fun CharSequence.replace(regex: Regex, replacement: String): String = regex.replace(this, replacement)

```

Returns a new string obtained by replacing each substring of this char sequence that matches the given regular expression `regex` with the result of the given function `transform` that takes `MatchResult` and returns a string to be used as a replacement for that match.

```

public inline fun CharSequence.replace(regex: Regex, noinline transform: (MatchResult) -> CharSequence): String = regex.replace(this, transform)

```

Replaces the first occurrence of the given regular expression `regex` in this char sequence with specified `replacement` expression. @param replacement A replacement expression that can include substitutions. See `[Regex.replaceFirst]` for details.

```

public inline fun CharSequence.replaceFirst(regex: Regex, replacement: String): String = regex.replaceFirst(this, replacement)

```

Returns a copy of this string having its first character replaced with the result of the specified `transform`, or the original string if it's empty.

```

@sample samples.text.Strings.replaceFirstChar

```

Since Kotlin 1.5. Was Experimental (ExperimentalStdlibApi::class). OptIn(kotlin.experimental.ExperimentalTypeInference::class). OverloadResolutionByLambdaReturnType. JvmName("replaceFirstCharWithChar")

```

public inline fun String.replaceFirstChar(transform: (Char) -> Char): String {
    return if (isEmpty()) transform(this[0]) + substring(1) else this
}

```

Returns a copy of this string having its first character replaced with the result of the specified `transform`, or the original string if it's empty.

```

@sample samples.text.Strings.replaceFirstChar

```

Since Kotlin 1.5. Was Experimental (ExperimentalStdlibApi::class). OptIn(kotlin.experimental.ExperimentalTypeInference::class). OverloadResolutionByLambdaReturnType. JvmName("replaceFirstCharWithCharSequence")

```

public inline fun String.replaceFirstChar(transform: (Char) -> CharSequence): String {
    return if (isEmpty()) transform(this[0]).toString() + substring(1) else this
}

```

Returns `true` if this char sequence matches the given regular expression `regex`.

```

public infix fun CharSequence.matches(regex: Regex): Boolean = regex.matches(this)

```

Implementation of `[regionMatches]` for CharSequences. Invoked when it's already known that arguments are not Strings, so that no additional type checks are performed.

```

internal fun CharSequence.regionMatchesImpl(thisOffset: Int, other: CharSequence, otherOffset: Int, length: Int, ignoreCase: Boolean): Boolean {
    if ((otherOffset < 0) || (thisOffset < 0) || (thisOffset > this.length - length) || (otherOffset > other.length - length)) {
        return false
    }
    for (index in 0 until length) {
        if (!this[thisOffset + index].equals(other[otherOffset + index], ignoreCase)) {
            return false
        }
    }
    return true
}

```

Returns `true` if this char sequence starts with the specified character.

```

public fun CharSequence.startsWith(char: Char, ignoreCase: Boolean = false): Boolean = this.length > 0 && this[0].equals(char, ignoreCase)

```

Returns `true` if this char sequence ends with the specified character.

```

public fun CharSequence.endsWith(char: Char, ignoreCase: Boolean = false): Boolean = this.length > 0 && this[lastIndex].equals(char, ignoreCase)

```

Returns `true` if this char sequence starts with the specified prefix.

```

public fun CharSequence.startsWith(prefix: CharSequence, ignoreCase: Boolean = false): Boolean {
    if (!ignoreCase && this is String && prefix is String) {
        return this.startsWith(prefix)
    } else {
        return regionMatchesImpl(0, prefix, 0, prefix.length, ignoreCase)
    }
}

```

Returns `true` if a substring of this char sequence starting at the specified offset `startIndex` starts with the specified prefix.

```

public fun CharSequence.startsWith(prefix: CharSequence, startIndex: Int, ignoreCase: Boolean = false): Boolean {
    if (!ignoreCase && this is String && prefix is String) {

```

```

return this.startsWith(prefix, startIndex)\n else\n return regionMatchesImpl(startIndex, prefix, 0,
prefix.length, ignoreCase)\n}\n\n/**\n * Returns `true` if this char sequence ends with the specified suffix.\n
*/\npublic fun CharSequence.endsWith(suffix: CharSequence, ignoreCase: Boolean = false): Boolean {\n if
(!ignoreCase && this is String && suffix is String)\n return this.endsWith(suffix)\n else\n return
regionMatchesImpl(length - suffix.length, suffix, 0, suffix.length, ignoreCase)\n}\n\n//
common prefix and suffix\n\n/**\n * Returns the longest string `prefix` such that this char sequence and [other]
char sequence both start with this prefix,\n * taking care not to split surrogate pairs.\n * If this and [other] have no
common prefix, returns the empty string.\n\n * @param ignoreCase `true` to ignore character case when matching a
character. By default `false`.\n * @sample samples.text.Strings.commonPrefixWith\n */\npublic fun
CharSequence.commonPrefixWith(other: CharSequence, ignoreCase: Boolean = false): String {\n val
shortestLength = minOf(this.length, other.length)\n\n var i = 0\n while (i < shortestLength &&
this[i].equals(other[i], ignoreCase = ignoreCase)) {\n i++\n }\n if (this.hasSurrogatePairAt(i - 1) ||
other.hasSurrogatePairAt(i - 1)) {\n i--\n }\n return subSequence(0, i).toString()\n}\n\n/**\n * Returns the
longest string `suffix` such that this char sequence and [other] char sequence both end with this suffix,\n * taking
care not to split surrogate pairs.\n * If this and [other] have no common suffix, returns the empty string.\n\n *
@param ignoreCase `true` to ignore character case when matching a character. By default `false`.\n * @sample
samples.text.Strings.commonSuffixWith\n */\npublic fun CharSequence.commonSuffixWith(other: CharSequence,
ignoreCase: Boolean = false): String {\n val thisLength = this.length\n val otherLength = other.length\n val
shortestLength = minOf(thisLength, otherLength)\n\n var i = 0\n while (i < shortestLength && this[thisLength -
i - 1].equals(other[otherLength - i - 1], ignoreCase = ignoreCase)) {\n i++\n }\n if
(this.hasSurrogatePairAt(thisLength - i - 1) || other.hasSurrogatePairAt(otherLength - i - 1)) {\n i--\n }\n
return subSequence(thisLength - i, thisLength).toString()\n}\n\n// indexOfAny()\n\n/**\n * Finds the index of the
first occurrence of any of the specified [chars] in this char sequence,\n * starting from the specified
[startIndex] and optionally ignoring the case.\n\n * @param ignoreCase `true` to ignore character case when
matching a character. By default `false`.\n * @return An index of the first occurrence of matched character from
[chars] or -1 if none of [chars] are found.\n\n */\npublic fun CharSequence.indexOfAny(chars: CharArray,
startIndex: Int = 0, ignoreCase: Boolean = false): Int {\n if (!ignoreCase && chars.size == 1 && this is String) {\n
val char = chars.single()\n return nativeIndexOf(char, startIndex)\n }\n\n for (index in
startIndex.coerceAtLeast(0)..lastIndex) {\n val charAtIndex = get(index)\n if (chars.any {
it.equals(charAtIndex, ignoreCase) })\n return index\n }\n return -1\n}\n\n/**\n * Finds the index of the
last occurrence of any of the specified [chars] in this char sequence,\n * starting from the specified [startIndex] and
optionally ignoring the case.\n\n * @param startIndex The index of character to start
searching at. The search proceeds backward toward the beginning of the string.\n * @param ignoreCase `true` to
ignore character case when matching a character. By default `false`.\n * @return An index of the last occurrence of
matched character from [chars] or -1 if none of [chars] are found.\n\n */\npublic fun
CharSequence.lastIndexOfAny(chars: CharArray, startIndex: Int = lastIndex, ignoreCase: Boolean = false): Int {\n
if (!ignoreCase && chars.size == 1 && this is String) {\n val char = chars.single()\n return
nativeLastIndexOf(char, startIndex)\n }\n\n for (index in startIndex.coerceAtMost(lastIndex) downTo 0) {\n
val charAtIndex = get(index)\n if (chars.any { it.equals(charAtIndex, ignoreCase) })\n return index\n
}\n\n return -1\n}\n\nprivate fun CharSequence.indexOf(other: CharSequence, startIndex: Int, endIndex: Int,
ignoreCase: Boolean, last: Boolean = false): Int {\n val indices = if (!last)\n
startIndex.coerceAtLeast(0)..endIndex.coerceAtMost(length)\n
else\n startIndex.coerceAtMost(lastIndex) downTo endIndex.coerceAtLeast(0)\n\n if (this is String &&
other is String) { // smart cast\n for (index in indices) {\n if (other.regionMatches(0, this, index,
other.length, ignoreCase))\n return index\n }\n } else {\n for (index in indices) {\n if
(other.regionMatchesImpl(0, this, index, other.length, ignoreCase))\n return index\n }\n }\n return
-1\n}\n\nprivate fun CharSequence.findAnyOf(strings: Collection<String>, startIndex: Int, ignoreCase: Boolean,
last: Boolean): Pair<Int, String>? {\n if (!ignoreCase && strings.size == 1) {\n val string = strings.single()\n

```

```

    val index = if (!last) indexOf(string, startIndex) else lastIndexOf(string, startIndex)\n    return if (index < 0) null
else index to string\n } \n\n val indices = if (!last) startIndex.coerceAtLeast(0)..length
else startIndex.coerceAtMost(lastIndex) downTo 0\n\n if (this is String) {\n    for (index in indices) {\n
val matchingString = strings.firstOrNull { it.regionMatches(0, this, index, it.length, ignoreCase) }\n    if
(matchingString != null)\n        return index to matchingString\n    } \n } else {\n    for (index in indices)
{\n        val matchingString = strings.firstOrNull { it.regionMatchesImpl(0, this, index, it.length, ignoreCase) }\n
        if (matchingString != null)\n            return index to matchingString\n        } \n } \n\n return
null\n}\n\n/**\n * Finds the first occurrence of any of the specified [strings] in this char sequence,\n * starting from
the specified [startIndex] and optionally ignoring the case.\n *\n * @param ignoreCase `true` to ignore character
case when matching a string. By default `false`.\n *\n * @return A pair of an index of the first occurrence of matched
string from [strings] and the string
matched\n * or `null` if none of [strings] are found.\n *\n * To avoid ambiguous results when strings in [strings]
have characters in common, this method proceeds from\n * the beginning to the end of this string, and finds at each
position the first element in [strings]\n * that matches this string at that position.\n */\n\npublic fun
CharSequence.findAnyOf(strings: Collection<String>, startIndex: Int = 0, ignoreCase: Boolean = false): Pair<Int,
String>? =\n    findAnyOf(strings, startIndex, ignoreCase, last = false)\n\n/**\n * Finds the last occurrence of any of
the specified [strings] in this char sequence,\n * starting from the specified [startIndex] and optionally ignoring the
case.\n *\n * @param startIndex The index of character to start searching at. The search proceeds backward toward
the beginning of the string.\n *\n * @param ignoreCase `true` to ignore character case when matching a string. By
default `false`.\n *\n * @return A pair of an index of the last occurrence of matched string
from [strings] and the string matched or `null` if none of [strings] are found.\n *\n * To avoid ambiguous results
when strings in [strings] have characters in common, this method proceeds from\n * the end toward the beginning of
this string, and finds at each position the first element in [strings]\n * that matches this string at that position.\n
*/\n\npublic fun CharSequence.findLastAnyOf(strings: Collection<String>, startIndex: Int = lastIndex, ignoreCase:
Boolean = false): Pair<Int, String>? =\n    findAnyOf(strings, startIndex, ignoreCase, last = true)\n\n/**\n * Finds
the index of the first occurrence of any of the specified [strings] in this char sequence,\n * starting from the specified
[startIndex] and optionally ignoring the case.\n *\n * @param ignoreCase `true` to ignore character case when
matching a string. By default `false`.\n *\n * @return An index of the first occurrence of matched string from [strings]
or -1 if none of [strings] are found.\n *\n * To avoid ambiguous
results when strings in [strings] have characters in common, this method proceeds from\n * the beginning to the end
of this string, and finds at each position the first element in [strings]\n * that matches this string at that position.\n
*/\n\npublic fun CharSequence.indexOfAny(strings: Collection<String>, startIndex: Int = 0, ignoreCase: Boolean =
false): Int =\n    findAnyOf(strings, startIndex, ignoreCase, last = false)?.first ?: -1\n\n/**\n * Finds the index of the
last occurrence of any of the specified [strings] in this char sequence,\n * starting from the specified [startIndex] and
optionally ignoring the case.\n *\n * @param startIndex The index of character to start searching at. The search
proceeds backward toward the beginning of the string.\n *\n * @param ignoreCase `true` to ignore character case when
matching a string. By default `false`.\n *\n * @return An index of the last occurrence of matched string from [strings]
or -1 if none of [strings] are found.\n *\n * To avoid ambiguous
results when strings in [strings] have characters in common, this method proceeds from\n * the end toward the
beginning of this string, and finds at each position the first element in [strings]\n * that matches this string at that
position.\n */\n\npublic fun CharSequence.lastIndexOfAny(strings: Collection<String>, startIndex: Int = lastIndex,
ignoreCase: Boolean = false): Int =\n    findAnyOf(strings, startIndex, ignoreCase, last = true)?.first ?: -1\n\n//
indexOf\n\n/**\n * Returns the index within this string of the first occurrence of the specified character, starting
from the specified [startIndex].\n *\n * @param ignoreCase `true` to ignore character case when matching a
character. By default `false`.\n *\n * @return An index of the first occurrence of [char] or -1 if none is found.\n
*/\n\npublic fun CharSequence.indexOf(char: Char, startIndex: Int = 0, ignoreCase: Boolean = false): Int {\n    return
if (ignoreCase || this !is String)\n        indexOfAny(charArrayOf(char), startIndex,

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ignoreCase)\n else\n     nativeIndexOf(char, startIndex)\n}\n\n/**\n * Returns the index within this char
sequence of the first occurrence of the specified [string],\n * starting from the specified [startIndex].\n *\n * @param
ignoreCase `true` to ignore character case when matching a string. By default `false`.\n * @return An index of the
first occurrence of [string] or -1 if none is found.\n * @sample samples.text.Strings.indexOf\n */\npublic fun
CharSequence.indexOf(string: String, startIndex: Int = 0, ignoreCase: Boolean = false): Int {\n     return if
(ignoreCase || this !is String)\n         indexOf(string, startIndex, length, ignoreCase)\n     else\n         nativeIndexOf(string, startIndex)\n}\n\n/**\n * Returns the index within this char sequence of the last occurrence of
the specified character,\n * starting from the specified [startIndex].\n *\n * @param startIndex The index of
character to start searching at. The search proceeds backward toward the beginning of the string.\n
* @param ignoreCase `true` to ignore character case when matching a character. By default `false`.\n * @return An
index of the last occurrence of [char] or -1 if none is found.\n */\npublic fun CharSequence.lastIndexOf(char: Char,
startIndex: Int = lastIndexOf(char), ignoreCase: Boolean = false): Int {\n     return if (ignoreCase || this !is String)\n
lastIndexOfAny(charArrayOf(char), startIndex, ignoreCase)\n     else\n         nativeLastIndexOf(char,
startIndex)\n}\n\n/**\n * Returns the index within this char sequence of the last occurrence of the specified
[string],\n * starting from the specified [startIndex].\n *\n * @param startIndex The index of character to start
searching at. The search proceeds backward toward the beginning of the string.\n * @param ignoreCase `true` to
ignore character case when matching a string. By default `false`.\n * @return An index of the last occurrence of
[string] or -1 if none is found.\n */\npublic fun CharSequence.lastIndexOf(string: String,
startIndex: Int = lastIndexOf(string), ignoreCase: Boolean = false): Int {\n     return if (ignoreCase || this !is String)\n
indexOf(string, startIndex, 0, ignoreCase, last = true)\n     else\n         nativeLastIndexOf(string,
startIndex)\n}\n\n/**\n * Returns `true` if this char sequence contains the specified [other] sequence of characters as
a substring.\n *\n * @param ignoreCase `true` to ignore character case when comparing strings. By default `false`.\n
*/\n\n@Suppress("INAPPLICABLE_OPERATOR_MODIFIER")\npublic operator fun
CharSequence.contains(other: CharSequence, ignoreCase: Boolean = false): Boolean =\n     if (other is String)\n
indexOf(other, ignoreCase = ignoreCase) >= 0\n     else\n         indexOf(other, 0, length, ignoreCase) >=
0\n}\n\n/**\n * Returns `true` if this char sequence contains the specified character [char].\n *\n * @param
ignoreCase `true` to ignore character case when comparing characters. By default `false`.\n
*/\n\n@Suppress("INAPPLICABLE_OPERATOR_MODIFIER")\npublic
operator fun CharSequence.contains(char: Char, ignoreCase: Boolean = false): Boolean =\n     indexOf(char,
ignoreCase = ignoreCase) >= 0\n}\n\n/**\n * Returns `true` if this char sequence contains at least one match of the
specified regular expression [regex].\n */\n\n@kotlin.internal.InlineOnly\npublic inline operator fun
CharSequence.contains(regex: Regex): Boolean = regex.containsMatchIn(this)\n\n\n//
rangesDelimitedBy\n\nprivate class DelimitedRangesSequence(\n     private val input: CharSequence,\n     private
val startIndex: Int,\n     private val limit: Int,\n     private val getNextMatch: CharSequence.(currentIndex: Int) ->
Pair<Int, Int>? ) : Sequence<IntRange> {\n     override fun iterator(): Iterator<IntRange> = object :
Iterator<IntRange> {\n         var nextState: Int = -1 // -1 for unknown, 0 for done, 1 for continue\n         var
currentStartIndex: Int = startIndex.coerceIn(0, input.length)\n         var nextSearchIndex: Int = currentStartIndex\n
var nextItem:
IntRange? = null\n         var counter: Int = 0\n         private fun calcNext() {\n             if (nextSearchIndex < 0) {\n
nextState = 0\n                 nextItem = null\n             } else {\n                 if (limit > 0 && ++counter >= limit ||
nextSearchIndex > input.length) {\n                     nextItem = currentStartIndex..input.lastIndex\n
nextSearchIndex = -1\n                 } else {\n                     val match = input.getNextMatch(nextSearchIndex)\n
if (match == null) {\n                         nextItem = currentStartIndex..input.lastIndex\n
nextSearchIndex = -1\n                     } else {\n                         val (index, length) = match\n
currentStartIndex = index\n                         currentStartIndex until index\n                         currentStartIndex = index + length\n
nextSearchIndex =
currentStartIndex + if (length == 0) 1 else 0\n                     }\n                 }\n                 nextState = 1\n
}\n             }\n             override fun next(): IntRange {\n                 if (nextState == -
1)\n                     calcNext()\n                 if (nextState == 0)\n                     throw NoSuchElementException()\n                 val

```



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delimiters: Char, ignoreCase: Boolean = false, limit: Int = 0): Sequence<String> =\n
rangesDelimitedBy(delimiters, ignoreCase = ignoreCase, limit = limit).map { substring(it) }\n\n/**\n * Splits this
char sequence to a list of strings around occurrences of the specified [delimiters].\n * @param delimiters One or
more characters to be used as delimiters.\n * @param ignoreCase `true` to ignore character case when matching
a delimiter. By default `false`.\n * @param limit The maximum number of substrings to return.\n */\npublic fun
CharSequence.split(vararg delimiters: Char, ignoreCase: Boolean = false, limit: Int = 0): List<String> {\n    if
(delimiters.size == 1) {\n        return split(delimiters[0].toString(), ignoreCase, limit)\n    }\n\n    return
rangesDelimitedBy(delimiters, ignoreCase = ignoreCase, limit = limit).asIterable().map { substring(it) }\n\n\n/**\n * Splits this char sequence to a list of strings around occurrences of the specified [delimiter].\n * This is specialized
version of split which receives single non-empty delimiter and offers better performance\n * @param delimiter
String used as delimiter\n * @param ignoreCase `true` to ignore character case when matching a delimiter. By
default `false`.\n * @param limit The maximum number of substrings to return.\n */\nprivate fun
CharSequence.split(delimiter: String, ignoreCase: Boolean, limit: Int): List<String> {\n    requireNonNegativeLimit(limit)\n\n    var currentOffset = 0\n    var nextIndex = indexOf(delimiter, currentOffset, ignoreCase)\n    if (nextIndex == -1 ||
limit == 1) {\n        return listOf(this.toString())\n    }\n\n    val isLimited = limit > 0\n    val result =
ArrayList<String>(if (isLimited) limit.coerceAtMost(10) else 10)\n    do {\n        result.add(substring(currentOffset,
nextIndex))\n        currentOffset = nextIndex + delimiter.length\n        // Do not search for next occurrence if we're
reaching limit\n        if (isLimited && result.size == limit - 1) break\n        nextIndex = indexOf(delimiter,
currentOffset, ignoreCase)\n    } while (nextIndex != -1)\n\n    result.add(substring(currentOffset, length))\n    return
result\n}\n\n\n/**\n * Splits this char sequence to a list of strings around matches of the given regular expression.\n *
@param limit Non-negative value specifying the maximum number of substrings to return.\n * Zero by default
means no limit is set.\n */\n@kotlin.internal.InlineOnly\npublic
inline fun CharSequence.split(regex: Regex, limit: Int = 0): List<String> = regex.split(this, limit)\n\n\n/**\n * Splits
this char sequence to a sequence of strings around matches of the given regular expression.\n * @param limit
Non-negative value specifying the maximum number of substrings to return.\n * Zero by default means no limit is
set.\n * @sample samples.text.Strings.splitToSequence\n */\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic
inline fun CharSequence.splitToSequence(regex: Regex, limit: Int = 0): Sequence<String> =
regex.splitToSequence(this, limit)\n\n\n/**\n * Splits this char sequence to a sequence of lines delimited by any of the
following character sequences: CRLF, LF or CR.\n * @param limit The lines returned do not include terminating line
separators.\n */\npublic fun CharSequence.lineSequence(): Sequence<String> = splitToSequence("\\r\\n", "\\n",
"\\r")\n\n\n/**\n * Splits this char
sequence to a list of lines delimited by any of the following character sequences: CRLF, LF or CR.\n * @param limit The
lines returned do not include terminating line separators.\n */\npublic fun CharSequence.lines(): List<String> =
lineSequence().toList()\n\n\n/**\n * Returns `true` if the contents of this char sequence are equal to the contents of the
specified [other],\n * i.e. both char sequences contain the same number of the same characters in the same order.\n *
@param other the other char sequence to compare\n * @sample samples.text.Strings.contentEquals\n */\n@SinceKotlin("1.5")\npublic expect infix fun
CharSequence?.contentEquals(other: CharSequence?): Boolean\n\n\n/**\n * Returns `true` if the contents of this char
sequence are equal to the contents of the specified [other], optionally ignoring case difference.\n * @param
ignoreCase `true` to ignore character case when comparing contents.\n * @sample
samples.text.Strings.contentEquals\n */\n@SinceKotlin("1.5")\npublic expect fun
CharSequence?.contentEquals(other: CharSequence?,
ignoreCase: Boolean): Boolean\n\n\ninternal fun CharSequence?.contentEqualsIgnoreCaseImpl(other:
CharSequence?): Boolean {\n    if (this is String && other is String) {\n        return this.equals(other, ignoreCase =
true)\n    }\n\n    if (this === other) return true\n    if (this == null || other == null || this.length != other.length) return
false\n\n    for (i in 0 until length) {\n        if (!this[i].equals(other[i], ignoreCase = true)) {\n            return false\n
        }\n    }\n\n    return true\n}\n\n\ninternal fun CharSequence?.contentEqualsImpl(other: CharSequence?): Boolean {\n

```





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can be found in the license/LICENSE.txt file.\n *\n\n// Auto-generated file. DO NOT EDIT!\n\npackage
kotlin\n\nimport kotlin.jvm.*\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@JvmInline\npublic
value class UIntArray\n@PublishedApi\ninternal constructor(@PublishedApi internal val storage: IntArray) :
Collection<UInt> {\n\n    /** Creates a new array of the specified [size], with all elements initialized
to zero. *\n    public constructor(size: Int) : this(IntArray(size))\n\n    /**\n    * Returns the array element at the
given [index]. This method can be called using the index operator.\n    *\n    * If the [index] is out of bounds of this
array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n    * where the behavior is unspecified.\n
*\n    public operator fun get(index: Int): UInt = storage[index].toInt()\n\n    /**\n    * Sets the element at the
given [index] to the given [value]. This method can be called using the index operator.\n    *\n    * If the [index] is
out of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n    * where the behavior
is unspecified.\n    *\n    public operator fun set(index: Int, value: UInt) {\n        storage[index] = value.toInt()\n
}\n\n    /** Returns the number of elements in the array. *\n    public override val size: Int get() = storage.size\n\n
/** Creates an iterator over
the elements of the array. *\n    public override operator fun iterator(): kotlin.collections.Iterator<UInt> =
Iterator(storage)\n\n    private class Iterator(private val array: IntArray) : kotlin.collections.Iterator<UInt> {\n
private var index = 0\n        override fun hasNext() = index < array.size\n        override fun next() = if (index <
array.size) array[index++].toInt() else throw NoSuchElementException(index.toString())\n    }\n\n    override fun
contains(element: UInt): Boolean {\n        // TODO: Eliminate this check after KT-30016 gets fixed.\n        //
Currently JS BE does not generate special bridge method for this method.\n
@Suppress("USELESS_CAST")\n        if ((element as Any?) !is UInt) return false\n\n        return
storage.contains(element.toInt())\n    }\n\n    override fun containsAll(elements: Collection<UInt>): Boolean {\n
return (elements as Collection<*>).all { it is UInt && storage.contains(it.toInt()) }\n    }\n\n    override fun
isEmpty():
Boolean = this.storage.size == 0\n}\n\n/**\n * Creates a new array of the specified [size], where each element is
calculated by calling the specified\n * [init] function.\n * The function [init] is called for each array element
sequentially starting from the first one.\n * It should return the value for an array element given its index.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray(size: Int, init: (Int) -> UInt): UIntArray {\n    return UIntArray(IntArray(size) { index ->
init(index).toInt()
})\n}\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
uintArrayOf(vararg elements: UInt): UIntArray = elements\n",/*\n * Copyright 2010-2023 JetBrains s.r.o. and
Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\n *\n\n// Auto-generated file. DO NOT EDIT!\n\npackage
kotlin\n\nimport kotlin.jvm.*\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@JvmInline\npublic
value class ULongArray\n@PublishedApi\ninternal constructor(@PublishedApi internal val storage: LongArray) :
Collection<ULong> {\n\n    /** Creates a new array of the specified [size], with all elements initialized to zero. *\n
public constructor(size: Int) : this(LongArray(size))\n\n    /**\n    * Returns the array element at the given [index].
This method can be called using the index operator.\n    *\n    * If the [index] is out of bounds of this array, throws
an [IndexOutOfBoundsException] except in Kotlin/JS\n    * where the behavior is unspecified.\n    *\n    public
operator fun get(index: Int): ULong = storage[index].toULong()\n\n    /**\n    * Sets the element at the given
[index] to the given [value]. This method can be called using the index operator.\n    *\n    * If the [index] is out of
bounds of this array, throws an [IndexOutOfBoundsException] except
in Kotlin/JS\n    * where the behavior is unspecified.\n    *\n    public operator fun set(index: Int, value: ULong)
{\n        storage[index] = value.toLong()\n    }\n\n    /** Returns the number of elements in the array. *\n    public
override val size: Int get() = storage.size\n\n    /** Creates an iterator over the elements of the array. *\n    public
override operator fun iterator(): kotlin.collections.Iterator<ULong> = Iterator(storage)\n\n    private class
Iterator(private val array: LongArray) : kotlin.collections.Iterator<ULong> {\n        private var index = 0\n
override fun hasNext() = index < array.size\n        override fun next() = if (index < array.size)

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array[index++].toULong() else throw NoSuchElementException(index.toString())\n }\n\n override fun
contains(element: ULong): Boolean {\n // TODO: Eliminate this check after KT-30016 gets fixed.\n //
Currently JS BE does not generate special bridge method for this method.\n
@Suppress(\"USELESS_CAST\")\n
    if ((element as Any?) !is ULong) return false\n\n    return storage.contains(element.toLong())\n }\n\n
override fun containsAll(elements: Collection<ULong>): Boolean {\n    return (elements as Collection<*>).all { it
is ULong && storage.contains(it.toLong()) }\n }\n\n override fun isEmpty(): Boolean = this.storage.size ==
0\n}\n\n/**\n * Creates a new array of the specified [size], where each element is calculated by calling the
specified\n * [init] function.\n * \n * The function [init] is called for each array element sequentially starting from the
first one.\n * It should return the value for an array element given its index.\n
*\n*\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray(size: Int, init: (Int) -> ULong): ULongArray {\n    return ULongArray(LongArray(size) { index ->
init(index).toLong()
})\n}\n\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ulongArrayOf(vararg elements: ULong): ULongArray = elements\n\", \"/*\n * Copyright 2010-2023
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n * \n*\n// Auto-generated file. DO NOT
EDIT!\n\npackage kotlin\n\nimport
kotlin.jvm.*\n\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@JvmInline\npublic value class
UShortArray\n@PublishedApi\ninternal constructor(@PublishedApi internal val storage: ShortArray) :
Collection<UShort> {\n\n    /** Creates a new array of the specified [size], with all elements initialized to zero. *\n
*\n    public constructor(size: Int) : this(ShortArray(size))\n\n    /**\n     * Returns the array element at the given [index].
This method can be called using the index operator.\n     * \n     * If the [index] is out of bounds of this array, throws
an [IndexOutOfBoundsException] except in Kotlin/JS\n     * where
the behavior is unspecified.\n     * \n     * public operator fun get(index: Int): UShort = storage[index].toUShort()\n\n
/**\n     * Sets the element at the given [index] to the given [value]. This method can be called using the index
operator.\n     * \n     * If the [index] is out of bounds of this array, throws an [IndexOutOfBoundsException] except
in Kotlin/JS\n     * where the behavior is unspecified.\n     * \n     * public operator fun set(index: Int, value: UShort)
{\n        storage[index] = value.toShort()\n    }\n\n    /** Returns the number of elements in the array. *\n
*\n    public override val size: Int get() = storage.size\n\n    /** Creates an iterator over the elements of the array. *\n
*\n    public override operator fun iterator(): kotlin.collections.Iterator<UShort> = Iterator(storage)\n\n    private class
Iterator(private val array: ShortArray) : kotlin.collections.Iterator<UShort> {\n        private var index = 0\n
override fun hasNext() = index < array.size\n
        override fun next() = if (index < array.size) array[index++].toUShort() else throw
NoSuchElementException(index.toString())\n    }\n\n    override fun contains(element: UShort): Boolean {\n //
TODO: Eliminate this check after KT-30016 gets fixed.\n // Currently JS BE does not generate special bridge
method for this method.\n        @Suppress(\"USELESS_CAST\")\n        if ((element as Any?) !is UShort) return
false\n\n        return storage.contains(element.toShort())\n    }\n\n    override fun containsAll(elements:
Collection<UShort>): Boolean {\n        return (elements as Collection<*>).all { it is UShort &&
storage.contains(it.toShort()) }\n    }\n\n    override fun isEmpty(): Boolean = this.storage.size == 0\n}\n\n/**\n
*\n * Creates a new array of the specified [size], where each element is calculated by calling the specified\n * [init]
function.\n * \n * The function [init] is called for each array element sequentially starting from the first one.\n * It
should return
the value for an array element given its index.\n
*\n*\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray(size: Int, init: (Int) -> UShort): UShortArray {\n    return UShortArray(ShortArray(size) { index ->
init(index).toShort()
})\n}\n\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun

```

ushortArrayOf(vararg elements: UShort): UShortArray = elements\n", "/\*\n \* Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n

\*\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("UArraysKt")\n@file:kotlin.jvm.JvmPackageName("kotlin.collections.unsigned")\n\npackage kotlin.collections\n\n\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:  
<https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib>\n\n\nimport  
kotlin.random.\*\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/\*\*\n \* Returns 1st \*element\* from the array.\n \* \n \* If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

\*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun  
UIntArray.component1(): UInt {\n return get(0)\n}\n\n/\*\*\n \* Returns 1st \*element\* from the array.\n \* \n \* If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

\*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic  
inline operator fun  
ULongArray.component1(): ULong {\n return get(0)\n}\n\n/\*\*\n \* Returns 1st \*element\* from the array.\n \* \n \* If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

\*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic  
inline operator fun  
UByteArray.component1(): UByte {\n return get(0)\n}\n\n/\*\*\n \* Returns 1st \*element\* from the array.\n \* \n \* If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

\*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun  
UShortArray.component1(): UShort {\n return get(0)\n}\n\n/\*\*\n \* Returns 2nd \*element\* from the array.\n \* \n \* If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

\*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun  
UIntArray.component2(): UInt {\n return get(1)\n}\n\n/\*\*\n \* Returns 2nd \*element\* from the array.\n \* \n \* If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

\*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun  
ULongArray.component2(): ULong {\n return get(1)\n}\n\n/\*\*\n \* Returns 2nd \*element\* from the array.\n \* \n \* If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

\*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun  
UByteArray.component2(): UByte {\n return get(1)\n}\n\n/\*\*\n \* Returns 2nd \*element\* from the array.\n \* \n \* If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

\*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun  
UShortArray.component2(): UShort {\n return  
get(1)\n}\n\n/\*\*\n \* Returns 3rd \*element\* from the array.\n \* \n \* If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

\*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun  
UIntArray.component3(): UInt {\n return get(2)\n}\n\n/\*\*\n \* Returns 3rd \*element\* from the array.\n \* \n \* If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the behavior is unspecified.\n

\*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun  
ULongArray.component3(): ULong {\n return get(2)\n}\n\n/\*\*\n \* Returns 3rd \*element\* from the array.\n \* \n \* If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n \* where the

behavior is unspecified.\n

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UByteArray.component3(): UByte {\n    return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UShortArray.component3(): UShort {\n    return get(2)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UIntArray.component4(): UInt {\n    return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun ULongArray.component4(): ULong {\n    return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UByteArray.component4(): UByte {\n    return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UShortArray.component4(): UShort {\n    return get(3)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size
```

```
of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UIntArray.component5(): UInt {\n    return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun ULongArray.component5(): ULong {\n    return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UByteArray.component5(): UByte {\n    return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UShortArray.component5(): UShort {\n    return get(4)\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic expect fun UIntArray.elementAt(index: Int): UInt\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic expect fun ULongArray.elementAt(index: Int): ULong\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic expect fun UByteArray.elementAt(index: Int): UByte
```

```

UByte\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index]
is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic expect fun UShortArray.elementAt(index: Int):
UShort\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the
[index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun UIntArray.elementAtOrElse(index: Int, defaultValue: (Int) -> UInt): UInt {\n    return if (index >= 0 && index
<= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result
of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.elementAtOrElse(index: Int, defaultValue: (Int) -> ULong): ULong {\n    return if (index >= 0 &&
index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the
result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.elementAtOrElse(index:
Int, defaultValue: (Int) -> UByte): UByte {\n    return if (index >= 0 && index <= lastIndex) get(index) else
defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue]
function if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.elementAtOrElse(index: Int, defaultValue: (Int) -> UShort): UShort {\n    return if (index >= 0 &&
index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or
`null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.elementAtOrNull(index: Int): UInt? {\n
    return this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of
bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.elementAtOrNull(index: Int): ULong? {\n    return this.getOrNull(index)\n}\n\n/**\n * Returns an
element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.elementAtOrNull(index: Int): UByte? {\n    return this.getOrNull(index)\n}\n\n/**\n * Returns an
element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UShortArray.elementAtOrNull(index: Int): UShort? {\n    return this.getOrNull(index)\n}\n\n/**\n *
Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.find(predicate: (UInt) -> Boolean): UInt? {\n    return firstOrNull(predicate)\n}\n\n/**\n * Returns the
first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun

```

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ULongArray.find(predicate: (ULong) -> Boolean): ULong? {\n  return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.find(predicate: (UByte) -> Boolean): UByte? {\n  return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.find(predicate: (UShort) -> Boolean): UShort? {\n  return firstOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.findLast(predicate: (UInt) -> Boolean): UInt? {\n  return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.findLast(predicate: (ULong) -> Boolean): ULong? {\n  return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.findLast(predicate: (UByte) -> Boolean): UByte? {\n  return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UShortArray.findLast(predicate: (UShort) -> Boolean): UShort? {\n  return
lastOrNull(predicate)\n}\n\n/**\n * Returns the first element.\n * \n * @throws NoSuchElementException if the
array is empty.\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UIntArray.first(): UInt {\n  return storage.first().toUInt()\n}\n\n/**\n * Returns the first element.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.first(): ULong {\n  return storage.first().toULong()\n}\n\n/**\n * Returns the first element.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.first(): UByte {\n  return storage.first().toUByte()\n}\n\n/**\n * Returns the first element.\n * \n * @throws
NoSuchElementException if the array is empty.\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.first(): UShort {\n  return storage.first().toUShort()\n}\n\n/**\n * Returns the first element matching
the given [predicate].\n * \n * @throws [NoSuchElementException] if no such element is found.\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.first(predicate: (UInt) -> Boolean): UInt {\n  for (element in this) if (predicate(element)) return
element\n  throw NoSuchElementException("Array contains no element matching the predicate.")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * \n * @throws [NoSuchElementException] if no such
element is found.\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.first(predicate: (ULong) -> Boolean): ULong {\n  for (element in this) if
(predicate(element)) return element\n  throw NoSuchElementException("Array contains no element matching the
predicate.")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * \n * @throws

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[NoSuchElementException] if no such element is found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.first(predicate: (UByte) -> Boolean): UByte {\n  for (element in this) if (predicate(element)) return
element\n  throw NoSuchElementException("Array contains no element matching the predicate.")\n}\n\n/**\n *
Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such
element is found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.first(predicate: (UShort) -> Boolean): UShort {\n  for (element in this) if (predicate(element)) return
element\n  throw NoSuchElementException("Array contains no
element matching the predicate.")\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.firstOrNull(): UInt? {\n  return
if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.firstOrNull(): ULong? {\n
return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.firstOrNull(): UByte? {\n
return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.firstOrNull(): UShort? {\n
return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element matching the given [predicate], or
`null` if element was not found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.firstOrNull(predicate: (UInt) -> Boolean): UInt? {\n  for (element in this) if (predicate(element)) return
element\n  return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element
was not found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.firstOrNull(predicate: (ULong) -> Boolean): ULong? {\n  for (element in this) if
(predicate(element)) return element\n  return null\n}\n\n/**\n * Returns the first element matching the given
[predicate], or `null` if element was not found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.firstOrNull(predicate: (UByte) -> Boolean): UByte? {\n  for (element in this) if (predicate(element))
return element\n  return null\n}\n\n/**\n *
Returns the first element matching the given [predicate], or `null` if element was not found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.firstOrNull(predicate: (UShort) -> Boolean): UShort? {\n  for (element in this) if (predicate(element))
return element\n  return null\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the
[defaultValue] function if the [index] is out of bounds of this array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.getOrElse(index: Int, defaultValue: (Int) -> UInt): UInt {\n  return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds of this array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.getOrElse(index: Int, defaultValue: (Int) -> ULong): ULong {\n  return if (index >= 0 &&
index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the
result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.getOrElse(index: Int, defaultValue: (Int) -> UByte): UByte {\n  return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds of this array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.getOrElse(index: Int, defaultValue: (Int) -> UShort): UShort {\n  return if (index >= 0 && index <=

```

```

lastIndex) get(index)
else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of
bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.getOrNull(index: Int): UInt? {\n
return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given
[index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.getOrNull\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.getOrNull(index: Int):
ULong? {\n    return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at
the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.getOrNull\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.getOrNull(index:
Int): UByte? {\n    return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an
element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.getOrNull\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.getOrNull(index: Int):
UShort? {\n    return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns first index of
[element], or -1 if the array does not contain element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.indexOf(element: UInt): Int {\n    return storage.indexOf(element.toInt())\n}\n\n/**\n * Returns first
index of [element], or -1 if the array does not contain element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.indexOf(element: ULong): Int {\n    return
storage.indexOf(element.toLong())\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain
element.\n * \n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun UByteArray.indexOf(element: UByte): Int {\n    return storage.indexOf(element.toByte())\n}\n\n/**\n * Returns
first index of [element], or -1 if the array does not contain element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.indexOf(element: UShort): Int {\n    return storage.indexOf(element.toShort())\n}\n\n/**\n * Returns
index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.indexOfFirst(predicate: (UInt) -> Boolean): Int {\n    return storage.indexOfFirst { predicate(it.toUInt())
}\n}\n\n/**\n * Returns index of the first
element matching the given [predicate], or -1 if the array does not contain such element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.indexOfFirst(predicate: (ULong) -> Boolean): Int {\n    return storage.indexOfFirst {
predicate(it.toULong()) }\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the
array does not contain such element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.indexOfFirst(predicate: (UByte) -> Boolean): Int {\n    return storage.indexOfFirst {
predicate(it.toUByte()) }\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the
array does not contain such element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.indexOfFirst(predicate: (UShort) -> Boolean): Int {\n    return storage.indexOfFirst
{ predicate(it.toUShort()) }\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if
the array does not contain such element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.indexOfLast(predicate: (UInt) -> Boolean): Int {\n    return storage.indexOfLast { predicate(it.toUInt())
}

```





```

element = this[index]\n
    if (predicate(element)) return element\n    } throw NoSuchElementException("Array contains no element
matching the predicate.")\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain
element.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun UIntArray.lastIndexOf(element: UInt): Int {\n    return storage.lastIndexOf(element.toInt())\n}\n\n/**\n *
Returns last index of [element], or -1 if the array does not contain element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.lastIndexOf(element: ULong): Int {\n    return storage.lastIndexOf(element.toLong())\n}\n\n/**\n *
Returns last index of [element], or -1 if the array does not contain element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.lastIndexOf(element: UByte): Int {\n    return storage.lastIndexOf(element.toByte())\n}\n\n/**\n *
Returns last index of [element], or -1 if the array does not contain element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.lastIndexOf(element: UShort): Int {\n    return storage.lastIndexOf(element.toShort())\n}\n\n/**\n *
Returns the last element, or `null` if the array is empty.\n */\n * @sample
samples.collections.Collections.Elements.last\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic
fun UIntArray.lastOrNull(): UInt? {\n    return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last
element, or `null` if the array is empty.\n */\n * @sample samples.collections.Collections.Elements.last\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.lastOrNull(): ULong? {\n
return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n
*\n */\n * @sample samples.collections.Collections.Elements.last\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.lastOrNull(): UByte? {\n
return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n
*\n */\n * @sample samples.collections.Collections.Elements.last\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.lastOrNull(): UShort? {\n
return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element matching the given [predicate], or
`null` if no such element was found.\n */\n * @sample samples.collections.Collections.Elements.last\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.lastOrNull(predicate: (UInt) -> Boolean): UInt? {\n    for (index in this.indices.reversed()) {\n        val
element = this[index]\n        if (predicate(element)) return element\n    }\n    return null\n}\n\n/**\n * Returns the last
element
matching the given [predicate], or `null` if no such element was found.\n */\n * @sample
samples.collections.Collections.Elements.last\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.lastOrNull(predicate: (ULong) -> Boolean): ULong? {\n    for (index in this.indices.reversed()) {\n
val element = this[index]\n        if (predicate(element)) return element\n    }\n    return null\n}\n\n/**\n * Returns the
last element matching the given [predicate], or `null` if no such element was found.\n */\n * @sample
samples.collections.Collections.Elements.last\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.lastOrNull(predicate: (UByte) -> Boolean): UByte? {\n    for (index in this.indices.reversed()) {\n
val element = this[index]\n        if (predicate(element)) return element\n    }\n    return null\n}\n\n/**\n * Returns the
last element matching
the given [predicate], or `null` if no such element was found.\n */\n * @sample
samples.collections.Collections.Elements.last\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.lastOrNull(predicate: (UShort) -> Boolean): UShort? {\n    for (index in this.indices.reversed()) {\n
val element = this[index]\n        if (predicate(element)) return element\n    }\n    return null\n}\n\n/**\n * Returns a
random element from this array.\n */\n * @throws NoSuchElementException if this array is empty.\n

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*^@SinceKotlin("1.3")^@ExperimentalUnsignedTypes^@kotlin.internal.InlineOnly^public inline fun
UIntArray.random(): UInt {^n return random(Random)^n}^n/^n * Returns a random element from this array.^n
* ^n * @throws NoSuchElementException if this array is empty.^n
*^@SinceKotlin("1.3")^@ExperimentalUnsignedTypes^@kotlin.internal.InlineOnly^public inline fun
ULongArray.random(): ULong {^n return random(Random)^n}^n/^n *
* Returns a random element from this array.^n * ^n * @throws NoSuchElementException if this array is empty.^n
*^@SinceKotlin("1.3")^@ExperimentalUnsignedTypes^@kotlin.internal.InlineOnly^public inline fun
UByteArray.random(): UByte {^n return random(Random)^n}^n/^n * Returns a random element from this
array.^n * ^n * @throws NoSuchElementException if this array is empty.^n
*^@SinceKotlin("1.3")^@ExperimentalUnsignedTypes^@kotlin.internal.InlineOnly^public inline fun
UShortArray.random(): UShort {^n return random(Random)^n}^n/^n * Returns a random element from this
array using the specified source of randomness.^n * ^n * @throws NoSuchElementException if this array is empty.^n
*^@SinceKotlin("1.3")^@ExperimentalUnsignedTypes^public fun UIntArray.random(random: Random): UInt
{^n if (isEmpty())^n throw NoSuchElementException("Array is empty.^")^n return
get(random.nextInt(size))^n}^n/^n * Returns a random element from
this array using the specified source of randomness.^n * ^n * @throws NoSuchElementException if this array is
empty.^n
*^@SinceKotlin("1.3")^@ExperimentalUnsignedTypes^public fun ULongArray.random(random:
Random): ULong {^n if (isEmpty())^n throw NoSuchElementException("Array is empty.^")^n return
get(random.nextInt(size))^n}^n/^n * Returns a random element from this array using the specified source of
randomness.^n * ^n * @throws NoSuchElementException if this array is empty.^n
*^@SinceKotlin("1.3")^@ExperimentalUnsignedTypes^public fun UByteArray.random(random: Random):
UByte {^n if (isEmpty())^n throw NoSuchElementException("Array is empty.^")^n return
get(random.nextInt(size))^n}^n/^n * Returns a random element from this array using the specified source of
randomness.^n * ^n * @throws NoSuchElementException if this array is empty.^n
*^@SinceKotlin("1.3")^@ExperimentalUnsignedTypes^public fun UShortArray.random(random: Random):
UShort {^n if (isEmpty())^n throw NoSuchElementException("Array is empty.^")^n return
get(random.nextInt(size))^n}^n/^n * Returns a random element from this array, or `null` if this array is empty.^n
*^@SinceKotlin("1.4")^@ExperimentalUnsignedTypes^@WasExperimental(ExperimentalStdlibApi::class)^n
^@kotlin.internal.InlineOnly^public inline fun UIntArray.randomOrNull(): UInt? {^n return
randomOrNull(Random)^n}^n/^n * Returns a random element from this array, or `null` if this array is empty.^n
*^@SinceKotlin("1.4")^@ExperimentalUnsignedTypes^@WasExperimental(ExperimentalStdlibApi::class)^n
^@kotlin.internal.InlineOnly^public inline fun ULongArray.randomOrNull(): ULong? {^n return
randomOrNull(Random)^n}^n/^n * Returns a random element from this array, or `null` if this array is empty.^n
*^@SinceKotlin("1.4")^@ExperimentalUnsignedTypes^@WasExperimental(ExperimentalStdlibApi::class)^n
^@kotlin.internal.InlineOnly^public inline fun UByteArray.randomOrNull():
UByte? {^n return randomOrNull(Random)^n}^n/^n * Returns a random element from this array, or `null` if
this array is empty.^n
*^@SinceKotlin("1.4")^@ExperimentalUnsignedTypes^@WasExperimental(ExperimentalStdlibApi::class)^n
^@kotlin.internal.InlineOnly^public inline fun UShortArray.randomOrNull(): UShort? {^n return
randomOrNull(Random)^n}^n/^n * Returns a random element from this array using the specified source of
randomness, or `null` if this array is empty.^n
*^@SinceKotlin("1.4")^@ExperimentalUnsignedTypes^@WasExperimental(ExperimentalStdlibApi::class)^np
ublic fun UIntArray.randomOrNull(random: Random): UInt? {^n if (isEmpty())^n return null^n return
get(random.nextInt(size))^n}^n/^n * Returns a random element from this array using the specified source of
randomness, or `null` if this array is empty.^n
*^@SinceKotlin("1.4")^@ExperimentalUnsignedTypes^@WasExperimental(ExperimentalStdlibApi::class)^np
ublic fun ULongArray.randomOrNull(random:

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Random): ULong? {\n if (isEmpty())\n return null\n return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun UByteArray.randomOrNull(random: Random): UByte? {\n if (isEmpty())\n return null\n return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun UShortArray.randomOrNull(random: Random): UShort? {\n if (isEmpty())\n return null\n return get(random.nextInt(size))\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.single(): UInt {\n return storage.single().toUInt()\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.single(): ULong {\n return storage.single().toULong()\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.single(): UByte {\n return storage.single().toUByte()\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.single(): UShort {\n return storage.single().toUShort()\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.single(predicate: (UInt) -> Boolean): UInt {\n var single: UInt? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) throw IllegalArgumentException("Array contains more than one matching element.")\n single = element\n found = true\n }\n }\n if (!found) throw NoSuchElementException("Array contains no element matching the predicate.")\n @Suppress("UNCHECKED_CAST")\n return single as UInt\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.single(predicate: (ULong) -> Boolean): ULong {\n var single: ULong? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) throw IllegalArgumentException("Array contains more than one matching element.")\n single = element\n found = true\n }\n }\n if (!found) throw NoSuchElementException("Array contains no element matching the predicate.")\n @Suppress("UNCHECKED_CAST")\n return single as ULong\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.single(predicate: (UByte) -> Boolean): UByte {\n var single: UByte? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) throw IllegalArgumentException("Array contains more than one matching element.")\n single = element\n found = true\n }\n }\n if (!found) throw NoSuchElementException("Array contains no element matching the predicate.")\n @Suppress("UNCHECKED_CAST")\n return single as UByte\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.single(predicate: (UShort) -> Boolean): UShort {\n var single: UShort? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) throw IllegalArgumentException("Array

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contains more than one matching element.\n        single = element\n        found = true\n    }\n }\n if
(!found) throw NoSuchElementException("Array contains
no element matching the predicate.\n) @Suppress("UNCHECKED_CAST")\n return single as
UShort\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.singleOrNull(): UInt? {\n
return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more
than one element.\n *\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
ULongArray.singleOrNull(): ULong? {\n    return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single
element, or `null` if the array is empty or has more than one element.\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.singleOrNull(): UByte? {\n
return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more
than one element.\n *\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic
fun UShortArray.singleOrNull(): UShort? {\n    return if (size == 1) this[0] else null\n}\n\n/**\n * Returns the
single element matching the given [predicate], or `null` if element was not found or more than one element was
found.\n *\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun UIntArray.singleOrNull(predicate: (UInt) -> Boolean): UInt? {\n    var single: UInt? = null\n    var found =
false\n    for (element in this) {\n        if (predicate(element)) {\n            if (found) return null\n            single =
element\n            found = true\n        }\n    }\n    if (!found) return null\n    return single\n}\n\n/**\n * Returns the
single element matching the given [predicate], or `null` if element was not found or more than one element was
found.\n *\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun ULongArray.singleOrNull(predicate: (ULong) -> Boolean): ULong? {\n
    var single: ULong? = null\n    var found = false\n    for (element in this) {\n        if (predicate(element)) {\n
if (found) return null\n            single = element\n            found = true\n        }\n    }\n    if (!found) return null\n
return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not
found or more than one element was found.\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.singleOrNull(predicate: (UByte) -> Boolean): UByte? {\n    var single: UByte? = null\n    var found =
false\n    for (element in this) {\n        if (predicate(element)) {\n            if (found) return null\n            single =
element\n            found = true\n        }\n    }\n    if (!found) return null\n    return single\n}\n\n/**\n * Returns the
single element matching the given [predicate], or `null` if element was not found or more than one element was
found.\n *\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun UShortArray.singleOrNull(predicate: (UShort) -> Boolean): UShort? {\n    var single: UShort? = null\n    var
found = false\n    for (element in this) {\n        if (predicate(element)) {\n            if (found) return null\n            single
= element\n            found = true\n        }\n    }\n    if (!found) return null\n    return single\n}\n\n/**\n * Returns a list
containing all elements except first [n] elements.\n *\n * @throws IllegalArgumentException if [n] is negative.\n *\n
*\n@sample samples.collections.Collections.Transformations.drop\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.drop(n: Int): List<UInt> {\n
require(n >= 0) { "Requested element count $n is less than zero." }\n    return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n *\n *\n@throws
IllegalArgumentException
if [n] is negative.\n *\n *\n@sample samples.collections.Collections.Transformations.drop\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.drop(n: Int): List<ULong> {\n
require(n >= 0) { "Requested element count $n is less than zero." }\n    return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n *\n *\n@throws
IllegalArgumentException
if [n] is negative.\n *\n *\n@sample
samples.collections.Collections.Transformations.drop\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.drop(n: Int): List<UByte> {\n
require(n >= 0) { "Requested element count $n is less than zero." }\n    return takeLast((size -

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n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.drop(n: Int): List<UShort>
{\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.dropLast(n: Int): List<UInt> {\n
    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.dropLast(n: Int):
List<ULong> {\n
    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.dropLast(n: Int): List<UByte>
{\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.dropLast(n: Int):
List<UShort> {\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.dropLastWhile(predicate: (UInt) -> Boolean): List<UInt> {\n    for (index in lastIndex downTo 0) {\n
        if (!predicate(this[index])) {\n            return take(index + 1)\n        }\n    }\n    return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.dropLastWhile(predicate: (ULong) -> Boolean): List<ULong> {\n    for (index in lastIndex downTo 0)
{\n        if (!predicate(this[index])) {\n            return take(index + 1)\n        }\n    }\n    return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the
given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.dropLastWhile(predicate: (UByte) -> Boolean): List<UByte> {\n    for (index in lastIndex downTo 0)
{\n        if (!predicate(this[index])) {\n            return take(index + 1)\n        }\n    }\n    return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.dropLastWhile(predicate: (UShort) -> Boolean): List<UShort> {\n    for (index in lastIndex downTo
0) {\n        if (!predicate(this[index])) {\n            return

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take(index + 1)\n    }\n }\n return emptyList()\n}\n\n/**\n * Returns a list containing all elements except first
elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.dropWhile(predicate: (UInt) -> Boolean): List<UInt> {\n    var yielding = false\n    val list =
ArrayList<UInt>()\n    for (item in this)\n        if (yielding)\n            list.add(item)\n        else if (!predicate(item)) {\n
            list.add(item)\n            yielding = true\n        }\n    return list\n}\n\n/**\n * Returns a list containing all
elements except first elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.dropWhile(predicate: (ULong) -> Boolean):
List<ULong> {\n    var yielding = false\n    val list = ArrayList<ULong>()\n    for (item in this)\n        if
(yielding)\n            list.add(item)\n        else if (!predicate(item)) {\n            list.add(item)\n            yielding = true\n
        }\n    return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given
[predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.dropWhile(predicate: (UByte) -> Boolean): List<UByte> {\n    var yielding = false\n    val list =
ArrayList<UByte>()\n    for (item in this)\n        if (yielding)\n            list.add(item)\n        else if (!predicate(item))
{\n            list.add(item)\n            yielding = true\n        }\n    return list\n}\n\n/**\n * Returns a list containing all
elements except first elements that satisfy the given [predicate].\n
* \n * @sample samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.dropWhile(predicate: (UShort) -> Boolean): List<UShort> {\n    var yielding = false\n    val list =
ArrayList<UShort>()\n    for (item in this)\n        if (yielding)\n            list.add(item)\n        else if (!predicate(item))
{\n            list.add(item)\n            yielding = true\n        }\n    return list\n}\n\n/**\n * Returns a list containing only
elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.filter(predicate: (UInt) -> Boolean): List<UInt> {\n    return filterTo(ArrayList<UInt>(),
predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.filter(predicate: (ULong) -> Boolean): List<ULong> {\n    return filterTo(ArrayList<ULong>(),
predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.filter(predicate: (UByte) -> Boolean): List<UByte> {\n    return filterTo(ArrayList<UByte>(),
predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.filter(predicate: (UShort) -> Boolean): List<UShort> {\n    return filterTo(ArrayList<UShort>(),
predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @param [predicate] function that takes
the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.filterIndexed(predicate: (index: Int, UInt) -> Boolean): List<UInt> {\n    return
filterIndexedTo(ArrayList<UInt>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the
given [predicate].\n * \n * @param [predicate] function that takes the index of an element and the element itself\n * and

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returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexed\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.filterIndexed(predicate:
(index: Int, ULong) -> Boolean): List<ULong> {\n    return filterIndexedTo(ArrayList<ULong>(),
predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param
[predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate
evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.filterIndexed(predicate: (index: Int, UByte) -> Boolean): List<UByte> {\n    return
filterIndexedTo(ArrayList<UByte>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the
given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and
returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexed\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UShortArray.filterIndexed(predicate: (index: Int, UShort) -> Boolean): List<UShort> {\n    return
filterIndexedTo(ArrayList<UShort>(), predicate)\n}\n\n/**\n * Appends all elements matching the given [predicate]
to the given [destination].\n * @param [predicate] function that takes the index of an element and the element
itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexedTo\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in UInt>> UIntArray.filterIndexedTo(destination: C, predicate: (index: Int, UInt) -> Boolean): C
{\n    forEachIndexed { index, element ->\n        if (predicate(index, element)) destination.add(element)\n    }\n    return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the
given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n *
and returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexedTo\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in ULong>> ULongArray.filterIndexedTo(destination: C, predicate: (index: Int, ULong) ->
Boolean): C {\n    forEachIndexed { index, element ->\n        if (predicate(index, element))
destination.add(element)\n    }\n    return destination\n}\n\n/**\n * Appends all elements matching the given
[predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the
element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexedTo\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun <C : MutableCollection<in UByte>> UByteArray.filterIndexedTo(destination: C, predicate: (index: Int,
UByte) -> Boolean): C {\n    forEachIndexed { index, element ->\n        if (predicate(index, element))
destination.add(element)\n    }\n    return destination\n}\n\n/**\n * Appends all elements matching the given
[predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the
element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexedTo\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in UShort>> UShortArray.filterIndexedTo(destination: C, predicate: (index: Int, UShort) ->
Boolean): C {\n    forEachIndexed { index, element ->\n        if (predicate(index, element))
destination.add(element)\n    }\n    return destination\n}\n\n/**\n * Returns a list containing all elements not
matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun

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UIntArray.filterNot(predicate: (UInt) -> Boolean): List<UInt> {\n  return filterNotTo(ArrayList<UInt>(),
predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.filterNot(predicate: (ULong) -> Boolean): List<ULong> {\n  return filterNotTo(ArrayList<ULong>(),
predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UByteArray.filterNot(predicate: (UByte) -> Boolean): List<UByte> {\n  return
filterNotTo(ArrayList<UByte>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the
given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.filterNot(predicate: (UShort) -> Boolean): List<UShort> {\n  return
filterNotTo(ArrayList<UShort>(), predicate)\n}\n\n/**\n * Appends all elements not matching the given [predicate]
to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in UInt>> UIntArray.filterNotTo(destination: C, predicate: (UInt) -> Boolean): C {\n  for
(element in this) if (!predicate(element)) destination.add(element)\n  return destination\n}\n\n/**\n *
Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in ULong>> ULongArray.filterNotTo(destination: C, predicate: (ULong) -> Boolean): C {\n
for (element in this) if (!predicate(element)) destination.add(element)\n  return destination\n}\n\n/**\n *
Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in UByte>> UByteArray.filterNotTo(destination: C, predicate: (UByte) -> Boolean): C {\n
for (element in this) if (!predicate(element)) destination.add(element)\n  return destination\n}\n\n/**\n *
Appends all elements
not matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in UShort>> UShortArray.filterNotTo(destination: C, predicate: (UShort) -> Boolean): C {\n
for (element in this) if (!predicate(element)) destination.add(element)\n  return destination\n}\n\n/**\n *
Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in UInt>> UIntArray.filterTo(destination: C, predicate: (UInt) -> Boolean): C {\n  for (element
in this) if (predicate(element)) destination.add(element)\n  return destination\n}\n\n/**\n * Appends all elements
matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in ULong>> ULongArray.filterTo(destination: C, predicate: (ULong) -> Boolean): C {\n  for
(element in this) if (predicate(element)) destination.add(element)\n  return destination\n}\n\n/**\n * Appends all
elements matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in UByte>> UByteArray.filterTo(destination: C, predicate: (UByte) -> Boolean): C {\n  for

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(element in this) if (predicate(element)) destination.add(element)\n return destination\n}\n\n/**\n * Appends all
elements matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in UShort>> UShortArray.filterTo(destination: C, predicate: (UShort) -> Boolean): C {\n for
(element in this) if (predicate(element)) destination.add(element)\n return destination\n}\n\n/**\n * Returns a list
containing elements at indices in the specified [indices] range.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.slice(indices: IntRange):
List<UInt> {\n if (indices.isEmpty()) return listOf()\n return copyOfRange(indices.start, indices.endInclusive +
1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.slice(indices: IntRange):
List<ULong> {\n if (indices.isEmpty()) return listOf()\n return copyOfRange(indices.start, indices.endInclusive
+ 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.slice(indices: IntRange):
List<UByte> {\n if (indices.isEmpty()) return listOf()\n return copyOfRange(indices.start, indices.endInclusive
+ 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.slice(indices: IntRange):
List<UShort> {\n if (indices.isEmpty()) return listOf()\n return copyOfRange(indices.start, indices.endInclusive
+ 1).asList()\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.slice(indices: Iterable<Int>):
List<UInt> {\n val size = indices.collectionSizeOrDefault(10)\n if (size == 0) return emptyList()\n val list =
ArrayList<UInt>(size)\n for (index
in indices) {\n list.add(get(index))\n }\n return list\n}\n\n/**\n * Returns a list containing elements at
specified [indices].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
ULongArray.slice(indices: Iterable<Int>): List<ULong> {\n val size = indices.collectionSizeOrDefault(10)\n if
(size == 0) return emptyList()\n val list = ArrayList<ULong>(size)\n for (index in indices) {\n
list.add(get(index))\n }\n return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.slice(indices: Iterable<Int>):
List<UByte> {\n val size = indices.collectionSizeOrDefault(10)\n if (size == 0) return emptyList()\n val list =
ArrayList<UByte>(size)\n for (index in indices) {\n list.add(get(index))\n }\n return list\n}\n\n/**\n *
Returns a list containing elements at specified [indices].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic
fun UShortArray.slice(indices: Iterable<Int>): List<UShort> {\n val size = indices.collectionSizeOrDefault(10)\n
if (size == 0) return emptyList()\n val list = ArrayList<UShort>(size)\n for (index in indices) {\n
list.add(get(index))\n }\n return list\n}\n\n/**\n * Returns an array containing elements of this array at specified
[indices].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sliceArray(indices:
Collection<Int>): UIntArray {\n return UIntArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array
containing elements of this array at specified [indices].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sliceArray(indices:
Collection<Int>): ULongArray {\n return ULongArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array
containing elements of this array at specified [indices].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UByteArray.sliceArray(indices: Collection<Int>): UByteArray {\n return
UByteArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing elements of this array at
specified [indices].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UShortArray.sliceArray(indices: Collection<Int>): UShortArray {\n return
UShortArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing elements at indices in the

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specified [indices] range.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UIntArray.sliceArray(indices: IntRange): UIntArray {\n  return UIntArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sliceArray(indices: IntRange):
ULongArray {\n  return ULongArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing
elements at indices in the specified
[indices] range.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UByteArray.sliceArray(indices: IntRange): UByteArray {\n  return
UByteArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing elements at indices in the
specified [indices] range.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UShortArray.sliceArray(indices: IntRange): UShortArray {\n  return
UShortArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n *
@throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.take(n: Int): List<UInt> {\n
require(n >= 0) { "Requested element count $n is less than zero." }\n  if (n == 0) return emptyList()\n  if (n >=
size) return toList()\n  if (n == 1) return listOf(this[0])\n  var count = 0\n  val list = ArrayList<UInt>(n)\n
  for (item in this) {\n    list.add(item)\n    if (++count == n)\n      break\n  }\n  return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n *
@sample samples.collections.Collections.Transformations.take\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.take(n: Int): List<ULong> {\n
require(n >= 0) { "Requested element count $n is less than zero." }\n  if (n == 0) return emptyList()\n  if (n >=
size) return toList()\n  if (n == 1) return listOf(this[0])\n  var count = 0\n  val list = ArrayList<ULong>(n)\n
  for (item in this) {\n    list.add(item)\n    if (++count == n)\n      break\n  }\n  return list\n}\n\n/**\n * Returns
a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic
fun UByteArray.take(n: Int): List<UByte> {\n  require(n >= 0) { "Requested element count $n is less than zero." }\n
  if (n == 0) return emptyList()\n  if (n >= size) return toList()\n  if (n == 1) return listOf(this[0])\n  var
count = 0\n  val list = ArrayList<UByte>(n)\n  for (item in this) {\n    list.add(item)\n    if (++count == n)\n
      break\n  }\n  return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.take(n: Int): List<UShort> {\n
require(n >= 0) { "Requested element count $n is less than zero." }\n  if (n == 0) return emptyList()\n  if (n >=
size) return toList()\n  if (n == 1) return listOf(this[0])\n  var count = 0\n  val list = ArrayList<UShort>(n)\n
  for (item in this) {\n    list.add(item)\n    if (++count == n)\n      break\n  }\n  return list\n}\n\n/**\n * Returns
a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.takeLast(n: Int): List<UInt> {\n
require(n >= 0) { "Requested element count $n is less than zero." }\n  if (n == 0) return emptyList()\n  val size =
size\n  if (n >= size) return toList()\n  if (n == 1) return listOf(this[size - 1])\n  val list = ArrayList<UInt>(n)\n
  for (index in size - n until size)\n    list.add(this[index])\n  return list\n}\n\n/**\n * Returns a list containing last
[n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic
fun ULongArray.takeLast(n: Int): List<ULong> {\n  require(n >= 0) { "Requested element count $n is less than
zero." }\n  if (n == 0) return emptyList()\n  val size = size\n  if (n >= size) return toList()\n  if (n == 1) return

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listOf(this[size - 1])\n    val list = ArrayList<ULong>(n)\n    for (index in size - n until size)\nlist.add(this[index])\n    return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws\nIllegalArgumentException if [n] is negative.\n * \n * @sample\nsamples.collections.Collections.Transformations.take\n\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.takeLast(n: Int): List<UByte>\n{\n    require(n >= 0) { "Requested element count $n is less than zero." }\n    if (n == 0) return emptyList()\n    val\nsize = size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[size - 1])\n    val list =\nArrayList<UByte>(n)\n    for (index in size - n until size)\n        list.add(this[index])\n    return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if\n[n] is negative.\n * \n * @sample\nsamples.collections.Collections.Transformations.take\n\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.takeLast(n: Int): List<UShort>\n{\n    require(n >= 0) { "Requested element count $n is less than zero." }\n    if (n == 0) return emptyList()\n    val\nsize = size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[size - 1])\n    val list =\nArrayList<UShort>(n)\n    for (index in size - n until size)\n        list.add(this[index])\n    return list\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample\nsamples.collections.Collections.Transformations.take\n\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nUIntArray.takeLastWhile(predicate: (UInt) -> Boolean): List<UInt>\n{\n    for (index in lastIndex downTo 0) {\n        if (!predicate(this[index])) {\n            return drop(index + 1)\n        }\n    }\n    return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample\nsamples.collections.Collections.Transformations.take\n\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nULongArray.takeLastWhile(predicate: (ULong) -> Boolean): List<ULong>\n{\n    for (index in lastIndex downTo 0)\n    {\n        if (!predicate(this[index])) {\n            return drop(index + 1)\n        }\n    }\n    return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample\nsamples.collections.Collections.Transformations.take\n\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nUByteArray.takeLastWhile(predicate: (UByte) -> Boolean): List<UByte>\n{\n    for (index\nin lastIndex downTo 0) {\n        if (!predicate(this[index])) {\n            return drop(index + 1)\n        }\n    }\n    return\ntoList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample\nsamples.collections.Collections.Transformations.take\n\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nUShortArray.takeLastWhile(predicate: (UShort) -> Boolean): List<UShort>\n{\n    for (index in lastIndex downTo 0)\n    {\n        if (!predicate(this[index])) {\n            return drop(index + 1)\n        }\n    }\n    return toList()\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample\nsamples.collections.Collections.Transformations.take\n\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nUIntArray.takeWhile(predicate: (UInt) -> Boolean): List<UInt>\n{\n    val list = ArrayList<UInt>()\n    for (item in this) {\n        if (!predicate(item))\n            break\n        list.add(item)\n    }\n    return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample\nsamples.collections.Collections.Transformations.take\n\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nULongArray.takeWhile(predicate: (ULong) -> Boolean): List<ULong>\n{\n    val list = ArrayList<ULong>()\n    for\n(item in this) {\n        if (!predicate(item))\n            break\n        list.add(item)\n    }\n    return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample\nsamples.collections.Collections.Transformations.take\n\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nUByteArray.takeWhile(predicate: (UByte) -> Boolean): List<UByte>\n{\n    val list = ArrayList<UByte>()\n    for

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(item in this)
    {\n    if (!predicate(item))\n        break\n        list.add(item)\n    }\n    return list\n}\n\n/**\n * Returns a list
containing first elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.takeWhile(predicate: (UShort) -> Boolean): List<UShort> {\n    val list = ArrayList<UShort>()\n    for
(item in this) {\n        if (!predicate(item))\n            break\n            list.add(item)\n        }\n        return list\n}\n\n/**\n *
Reverses elements in the array in-place.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.reverse(): Unit {\n    storage.reverse()\n}\n\n/**\n * Reverses elements in the array in-place.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.reverse(): Unit {\n    storage.reverse()\n}\n\n/**\n
* Reverses elements in the array in-place.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.reverse(): Unit {\n    storage.reverse()\n}\n\n/**\n * Reverses elements in the array in-place.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.reverse(): Unit {\n    storage.reverse()\n}\n\n/**\n * Reverses elements of the array in the specified
range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end
of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero
or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater
than [toIndex].\n *\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UIntArray.reverse(fromIndex: Int, toIndex:
Int): Unit {\n    storage.reverse(fromIndex, toIndex)\n}\n\n/**\n * Reverses elements of the array in the specified
range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end
of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero
or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater
than [toIndex].\n *\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n    storage.reverse(fromIndex,
toIndex)\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex
the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n
* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater
than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n    storage.reverse(fromIndex, toIndex)\n}\n\n/**\n
* Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range
(inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws
IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n
* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n    storage.reverse(fromIndex, toIndex)\n}\n\n/**\n
* Returns a list with elements in reversed order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.reversed(): List<UInt> {\n    if
(isEmpty()) return emptyList()\n    val list = toMutableList()\n    list.reverse()\n    return list\n}\n\n/**\n * Returns a
list with elements in reversed order.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
ULongArray.reversed(): List<ULong> {\n    if (isEmpty()) return emptyList()\n    val list = toMutableList()\n
list.reverse()\n    return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.reversed(): List<UByte> {\n    if
(isEmpty()) return emptyList()\n    val list = toMutableList()\n    list.reverse()\n    return list\n}\n\n/**\n * Returns

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```

a list with elements in reversed order.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UShortArray.reversed(): List<UShort> {\n  if (isEmpty()) return emptyList()\n  val list = toMutableList()\n  list.reverse()\n  return list\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.reversedArray(): UIntArray {\n  return UIntArray(storage.reversedArray())\n}\n\n/**\n * Returns an
array with elements of this array in reversed order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.reversedArray(): ULongArray {\n  return ULongArray(storage.reversedArray())\n}\n\n/**\n *
Returns an array with elements of this array in reversed order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.reversedArray(): UByteArray {\n  return UByteArray(storage.reversedArray())\n}\n\n/**\n * Returns
an array with elements of this array in reversed order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UShortArray.reversedArray(): UShortArray {\n  return
UShortArray(storage.reversedArray())\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.shuffle(): Unit {\n
shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.shuffle(): Unit {\n
shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.shuffle(): Unit {\n
shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.shuffle(): Unit {\n
shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random]
instance as the source of randomness.\n * \n * See:
https://en.wikipedia.org/wiki/Fisher%20%93Yates\_shuffle#The\_modern\_algorithm\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.shuffle(random: Random): Unit
{\n  for (i in lastIndex downTo 1) {\n    val j = random.nextInt(i + 1)\n    val copy = this[i]\n    this[i] =
this[j]\n    this[j] = copy\n  }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified
[random] instance as the source of randomness.\n * \n * See:
https://en.wikipedia.org/wiki/Fisher%20%93Yates\_shuffle#The\_modern\_algorithm\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.shuffle(random: Random):
Unit {\n  for (i in lastIndex downTo 1) {\n    val j = random.nextInt(i + 1)\n    val copy = this[i]\n    this[i] =
this[j]\n    this[j] = copy\n  }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified
[random] instance as the source of randomness.\n * \n * See:
https://en.wikipedia.org/wiki/Fisher%20%93Yates\_shuffle#The\_modern\_algorithm\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.shuffle(random: Random):
Unit {\n  for (i in lastIndex downTo 1) {\n    val j = random.nextInt(i + 1)\n    val copy = this[i]\n    this[i] =
this[j]\n    this[j] = copy\n  }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified
[random] instance as the source of randomness.\n * \n * See:
https://en.wikipedia.org/wiki/Fisher%20%93Yates\_shuffle#The\_modern\_algorithm\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.shuffle(random: Random):
Unit {\n  for (i in lastIndex downTo 1) {\n    val j = random.nextInt(i + 1)\n    val copy = this[i]\n    this[i] =
this[j]\n    this[j] = copy\n  }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their
natural sort order.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic
fun UIntArray.sortDescending(): Unit {\n  if (size > 1) {\n    sort()\n    reverse()\n  }\n}\n\n/**\n * Sorts
elements in the array in-place descending according to their natural sort order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sortDescending(): Unit {\n  if
(size > 1) {\n    sort()\n    reverse()\n  }\n}\n\n/**\n * Sorts elements in the array in-place descending

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according to their natural sort order.

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*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UByteArray.sortDescending(): Unit {\n if (size > 1) {\n sort()\n reverse()\n }}\n\n/**\n * Sorts
elements in the array in-place descending according to their natural sort order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sortDescending(): Unit {\n
if (size > 1) {\n sort()\n reverse()\n }}\n\n/**\n * Returns a list of all elements sorted according to their
natural sort
order.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sorted(): List<UInt> {\n
return copyOf().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural
sort order.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sorted():
List<ULong> {\n return copyOf().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted
according to their natural sort order.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UByteArray.sorted(): List<UByte> {\n return copyOf().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all
elements sorted according to their natural sort order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sorted(): List<UShort> {\n
return copyOf().apply { sort() }.asList()\n}\n\n/**\n * Returns an array with all elements of this array sorted
according to their natural sort order.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic
fun UIntArray.sortedArray(): UIntArray {\n if (isEmpty()) return this\n return this.copyOf().apply { sort()
}\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sortedArray(): ULongArray
{\n if (isEmpty()) return this\n return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all
elements of this array sorted according to their natural sort order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sortedArray(): UByteArray {\n
if (isEmpty()) return this\n return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements
of this array sorted according to their natural sort order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sortedArray(): UShortArray
{\n if (isEmpty()) return this\n
return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted
descending according to their natural sort order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sortedArrayDescending():
UIntArray {\n if (isEmpty()) return this\n return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns
an array with all elements of this array sorted descending according to their natural sort order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sortedArrayDescending():
ULongArray {\n if (isEmpty()) return this\n return this.copyOf().apply { sortDescending() }\n}\n\n/**\n *
Returns an array with all elements of this array sorted descending according to their natural sort order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sortedArrayDescending():
UByteArray {\n if (isEmpty()) return this\n return this.copyOf().apply { sortDescending()
}\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort
order.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UShortArray.sortedArrayDescending(): UShortArray {\n if (isEmpty()) return this\n return this.copyOf().apply {
sortDescending() }\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort
order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after
sorting.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sortedDescending():
List<UInt> {\n return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted
descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve
their order relative to each other after sorting.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic
fun
ULongArray.sortedDescending(): List<ULong> {\n return copyOf().apply { sort() }.reversed()\n}\n\n/**\n *
Returns a list of all elements sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It

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means that equal elements preserve their order relative to each other after sorting.\n

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sortedDescending():
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List<UByte> {\n    return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sortedDescending(): List<UShort> {\n    return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns an array of type [ByteArray], which is a view of this array where each element is a signed reinterpretation\n * of
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the corresponding element of this array.\n
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```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.asByteArray(): ByteArray {\n    return storage\n}\n\n/**\n * Returns an array of type [IntArray], which is a view of this array where each element is a signed reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
```

```
UIntArray.asIntArray(): IntArray {\n    return storage\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic expect fun UIntArray.asList():
```

```
List<UInt>\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic expect fun ULongArray.asList():
```

```
List<ULong>\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic expect
```

```
fun UByteArray.asList(): List<UByte>\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic expect fun UShortArray.asList():
```

```
List<UShort>\n\n/**\n * Returns an array of type [LongArray], which is a view of this array where each element is a signed reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
```

```
ULongArray.asLongArray(): LongArray {\n    return storage\n}\n\n/**\n * Returns an array of type [ShortArray], which is a view of this array where each element is a signed reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.asShortArray(): ShortArray {\n    return storage\n}\n\n/**\n * Returns an array of type [UByteArray], which is a view of this array where each element is an
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```
unsigned reinterpretation\n * of the corresponding element of this array.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.asUByteArray(): UByteArray {\n    return UByteArray(this)\n}\n\n/**\n * Returns an array of type [UIntArray], which is a view of this array where each element is an unsigned reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
```

```
IntArray.asUIntArray(): UIntArray {\n    return UIntArray(this)\n}\n\n/**\n * Returns an array of type [ULongArray], which is a view of this array where each element is an unsigned reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
```

```
LongArray.asULongArray(): ULongArray {\n    return ULongArray(this)\n}\n\n/**\n * Returns an array of type [UShortArray], which is a view of this array where each element is an unsigned reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
```

```
ShortArray.asUShortArray(): UShortArray {\n    return UShortArray(this)\n}\n\n/**\n * Returns `true` if the two specified arrays are structurally equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n */\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")\n@SinceKotlin("1.3")\n@DeprecatedSinceKotlin(hiddenSince =
```

```
"1.4")\n@ExperimentalUnsignedTypes\npublic infix fun UIntArray.contentEquals(other: UIntArray): Boolean {\n
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}\n
```



```

return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to
one another,\n * i.e. contain the same number of the same elements in the same order.\n */\n@Deprecated("Use
Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin("1.3")\n@DeprecatedSinceKotlin(hiddenSince =
"1.4")\n@ExperimentalUnsignedTypes\npublic infix fun ULongArray.contentEquals(other: ULongArray):
Boolean {\n    return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are
*structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n
*/\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin("1.3")\n@DeprecatedSinceKotlin(hiddenSince =
"1.4")\n@ExperimentalUnsignedTypes\npublic infix fun UByteArray.contentEquals(other: UByteArray): Boolean
{\n    return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal
to one another,\n * i.e. contain the same number of the same elements in the same order.\n */\n@Deprecated("Use
Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin("1.3")\n@DeprecatedSinceKotlin(hiddenSince =
"1.4")\n@ExperimentalUnsignedTypes\npublic
infix fun UShortArray.contentEquals(other: UShortArray): Boolean {\n    return
this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one
another,\n * i.e. contain the same number of the same elements in the same order.\n
*/\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic infix fun UIntArray?.contentEquals(other:
UIntArray?): Boolean {\n    return this?.storage.contentEquals(other?.storage)\n}\n\n/**\n * Returns `true` if the two
specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the
same order.\n */\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic infix fun
ULongArray?.contentEquals(other: ULongArray?): Boolean {\n    return
this?.storage.contentEquals(other?.storage)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally*
equal to one another,\n * i.e. contain the same number of the same elements
in the same order.\n */\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic infix fun
UByteArray?.contentEquals(other: UByteArray?): Boolean {\n    return
this?.storage.contentEquals(other?.storage)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally*
equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n
*/\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic infix fun UShortArray?.contentEquals(other:
UShortArray?): Boolean {\n    return this?.storage.contentEquals(other?.storage)\n}\n\n/**\n * Returns a hash code
based on the contents of this array as if it is [List].\n */\n@Deprecated("Use Kotlin compiler 1.4 to avoid
deprecation warning.\")\n@SinceKotlin("1.3")\n@DeprecatedSinceKotlin(hiddenSince =
"1.4")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.contentHashCode(): Int {\n    return
this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n
*/\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin("1.3")\n@DeprecatedSinceKotlin(hiddenSince =
"1.4")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.contentHashCode(): Int {\n    return
this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n
*/\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin("1.3")\n@DeprecatedSinceKotlin(hiddenSince =
"1.4")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.contentHashCode(): Int {\n    return
this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n
*/\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin("1.3")\n@DeprecatedSinceKotlin(hiddenSince =
"1.4")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.contentHashCode(): Int {\n    return
this.contentHashCode()\n}\n\n/**\n * Returns a hash code based

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on the contents of this array as if it is [List].\n *\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic
fun UIntArray?.contentHashCode(): Int {\n    return this?.storage.contentHashCode()\n}\n\n/**\n * Returns a hash
code based on the contents of this array as if it is [List].\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UIntArray?.contentHashCode(): Int {\n
return this?.storage.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it
is [List].\n *\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun
UByteArray?.contentHashCode(): Int {\n    return this?.storage.contentHashCode()\n}\n\n/**\n * Returns a hash
code based on the contents of this array as if it is [List].\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UShortArray?.contentHashCode(): Int {\n
return this?.storage.contentHashCode()\n}\n\n/**\n * Returns a string representation of the contents of the specified
array
as if it is [List].\n *\n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*\n@Deprecated("Use Kotlin compiler 1.4 to avoid deprecation
warning.")\n@SinceKotlin("1.3")\n@DeprecatedSinceKotlin(hiddenSince =
"1.4")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.contentToString(): String {\n    return
this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is
[List].\n *\n * @sample samples.collections.Arrays.ContentOperations.contentToString\n *\n@Deprecated("Use
Kotlin compiler 1.4 to avoid deprecation
warning.")\n@SinceKotlin("1.3")\n@DeprecatedSinceKotlin(hiddenSince =
"1.4")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.contentToString(): String {\n    return
this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is
[List].\n *\n * @sample samples.collections.Arrays.ContentOperations.contentToString\n *\n@Deprecated("Use
Kotlin compiler 1.4 to avoid deprecation
warning.")\n@SinceKotlin("1.3")\n@DeprecatedSinceKotlin(hiddenSince =
"1.4")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.contentToString(): String {\n    return
this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is
[List].\n *\n * @sample samples.collections.Arrays.ContentOperations.contentToString\n *\n@Deprecated("Use
Kotlin compiler 1.4 to avoid deprecation
warning.")\n@SinceKotlin("1.3")\n@DeprecatedSinceKotlin(hiddenSince =
"1.4")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.contentToString(): String {\n    return
this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is
[List].\n *\n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UIntArray?.contentToString(): String {\n
return this?.joinToString(",
", "[", "]") ?: "null"\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is
[List].\n *\n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun ULongArray?.contentToString(): String {\n
return this?.joinToString(", ", "[", "]") ?: "null"\n}\n\n/**\n * Returns a string representation of the contents of
the specified array as if it is [List].\n *\n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UByteArray?.contentToString(): String {\n
return this?.joinToString(", ", "[", "]") ?: "null"\n}\n\n/**\n * Returns a string representation of the contents of
the specified array as if it is [List].\n *\n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic
fun UShortArray?.contentToString(): String {\n    return this?.joinToString(", ", "[", "]") ?: "null"\n}\n\n/**\n
* Copies this array or its subrange into the [destination] array and returns that array.\n *\n * It's allowed to pass the
same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n *\n *

```

@param destination the array to copy to.\n \* @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n \* @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n \* @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n \* \n \* @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n \* @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n \* or when that index is out of the [destination] array indices range.\n \* \n \* @return the [destination] array.\n

```

*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.copyInto(destination: UIntArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size):
UIntArray {\n    storage.copyInto(destination.storage, destinationOffset, startIndex, endIndex)\n    return
destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n *
It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the
destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the
[destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy,
0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy,
size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when
[startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws
IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified
[destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the
[destination] array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.copyInto(destination: ULongArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size):
ULongArray {\n    storage.copyInto(destination.storage, destinationOffset, startIndex, endIndex)\n    return
destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n *
It's allowed to pass the same array in the [destination] and even specify the
subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n *
@param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the
beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the
subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or
[IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex
> endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array
starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices
range.\n * \n * @return the [destination] array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.copyInto(destination: UByteArray, destinationOffset: Int = 0, startIndex:
Int = 0, endIndex: Int = size): UByteArray {\n    storage.copyInto(destination.storage, destinationOffset, startIndex,
endIndex)\n    return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and
returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange
so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param
destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the
beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the
subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or
[IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex
> endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination]
array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices
range.\n * \n * @return the [destination] array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.copyInto(destination: UShortArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int =

```

```

size): UShortArray {\n  storage.copyInto(destination.storage, destinationOffset, startIndex, endIndex)\n  return
destination\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample
samples.collections.Arrays.CopyOfOperations.copyOf\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.copyOf(): UIntArray {\n  return UIntArray(storage.copyOf())\n}\n\n/**\n * Returns new array which is
a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.copyOf(): ULongArray {\n  return ULongArray(storage.copyOf())\n}\n\n/**\n * Returns
new array which is a copy of the original array.\n * \n * @sample
samples.collections.Arrays.CopyOfOperations.copyOf\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.copyOf(): UByteArray {\n  return UByteArray(storage.copyOf())\n}\n\n/**\n * Returns new array
which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.copyOf(): UShortArray {\n  return UShortArray(storage.copyOf())\n}\n\n/**\n * Returns new array
which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at
the end with zero values if necessary.\n * \n * - If [newSize] is
less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than
the size of the original array, the extra elements in the copy array are filled with zero values.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.copyOf(newSize: Int): UIntArray {\n  return UIntArray(storage.copyOf(newSize))\n}\n\n/**\n *
Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either
truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the
original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the
original array, the extra elements in the copy array are filled with zero values.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.copyOf(newSize: Int): ULongArray
{\n  return ULongArray(storage.copyOf(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original
array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if
necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the
[newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are
filled with zero values.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.copyOf(newSize: Int): UByteArray {\n  return UByteArray(storage.copyOf(newSize))\n}\n\n/**\n *
Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either
truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the
original array, the copy array is truncated to the [newSize].\n * - If [newSize]
is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.copyOf(newSize: Int): UShortArray {\n  return UShortArray(storage.copyOf(newSize))\n}\n\n/**\n *
Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start
of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws
IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n *
*\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.copyOfRange(fromIndex: Int, toIndex: Int): UIntArray {\n  return
UIntArray(storage.copyOfRange(fromIndex, toIndex))\n}\n\n/**\n

```

\* Returns a new array which is a copy of the specified range of the original array.\n \* \n \* @param fromIndex the start of the range (inclusive) to copy.\n \* @param toIndex the end of the range (exclusive) to copy.\n \* \n \* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.copyOfRange(fromIndex: Int, toIndex: Int): ULongArray {\n    return
ULongArray(storage.copyOfRange(fromIndex, toIndex))\n}\n\n/**\n * Returns a new array which is a copy of the
specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n *
@param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if
[fromIndex] is less than zero or [toIndex] is greater than the size of
this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.copyOfRange(fromIndex: Int, toIndex: Int): UByteArray {\n    return
UByteArray(storage.copyOfRange(fromIndex, toIndex))\n}\n\n/**\n * Returns a new array which is a copy of the
specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n *
@param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if
[fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws
IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.copyOfRange(fromIndex: Int, toIndex: Int): UShortArray {\n    return
UShortArray(storage.copyOfRange(fromIndex, toIndex))\n}\n\n/**\n * Returns a new array which is a copy of the
specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n *
@param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if
[fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws
IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.fill(element: UInt, fromIndex:
Int = 0, toIndex: Int = size): Unit {\n    storage.fill(element.toInt(), fromIndex, toIndex)\n}\n\n/**\n * Fills this array
or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array
by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater
than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.fill(element:
UInt, fromIndex:
Int = 0, toIndex: Int = size): Unit {\n    storage.fill(element.toInt(), fromIndex, toIndex)\n}\n\n/**\n * Fills this array
or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to
fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n *
@throws IndexOutOfBoundsException if [fromIndex] is less than
zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is
greater than [toIndex].\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
ULongArray.fill(element: ULong, fromIndex: Int = 0, toIndex: Int = size): Unit {\n    storage.fill(element.toLong(),
fromIndex, toIndex)\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n *
@param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range
(exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less
than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is
greater than [toIndex].\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UByteArray.fill(element: UByte, fromIndex: Int = 0, toIndex: Int = size): Unit {\n    storage.fill(element.toByte(),
fromIndex,
toIndex)\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param
fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive)
to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero
or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater
than [toIndex].\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.fill(element:
UShort, fromIndex: Int = 0, toIndex: Int = size): Unit {\n    storage.fill(element.toShort(), fromIndex,
toIndex)\n}\n\n/**\n * Returns the range of valid indices for the array.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic inline val UIntArray.indices: IntRange\n    get()
```

```

= storage.indices\n\n/**\n * Returns the range of valid indices for the array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic
inline val ULongArray.indices: IntRange\n get() = storage.indices\n\n/**\n * Returns the range of valid indices
for the array.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic inline val UByteArray.indices:
IntRange\n get() = storage.indices\n\n/**\n * Returns the range of valid indices for the array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic inline val UShortArray.indices: IntRange\n
get() = storage.indices\n\n/**\n * Returns the last valid index for the array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic inline val UIntArray.lastIndex: Int\n get() =
storage.lastIndex\n\n/**\n * Returns the last valid index for the array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic inline val ULongArray.lastIndex: Int\n get() =
storage.lastIndex\n\n/**\n * Returns the last valid index for the array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic inline val UByteArray.lastIndex: Int\n
get() = storage.lastIndex\n\n/**\n * Returns the last valid index for the array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic inline val UShortArray.lastIndex: Int\n get() =
storage.lastIndex\n\n/**\n * Returns an array containing all elements of the original array and then the given
[element].\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
operator fun UIntArray.plus(element: UInt): UIntArray {\n return UIntArray(storage +
element.toInt())\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given
[element].\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
operator fun ULongArray.plus(element: ULong): ULongArray {\n return ULongArray(storage +
element.toLong())\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given
[element].\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline operator fun UByteArray.plus(element: UByte): UByteArray {\n return UByteArray(storage +
element.toByte())\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given
[element].\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
operator fun UShortArray.plus(element: UShort): UShortArray {\n return UShortArray(storage +
element.toShort())\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements
of the given [elements] collection.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic operator
fun UIntArray.plus(elements: Collection<UInt>): UIntArray {\n var index = size\n val result =
storage.copyOfOf(size + elements.size)\n for (element in elements) result[index++] = element.toInt()\n return
UIntArray(result)\n}\n\n/**\n * Returns an array containing all elements of the original array and
then all elements of the given [elements] collection.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic operator fun ULongArray.plus(elements:
Collection<ULong>): ULongArray {\n var index = size\n val result = storage.copyOfOf(size + elements.size)\n
for (element in elements) result[index++] = element.toLong()\n return ULongArray(result)\n}\n\n/**\n * Returns
an array containing all elements of the original array and then all elements of the given [elements] collection.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic operator fun UByteArray.plus(elements:
Collection<UByte>): UByteArray {\n var index = size\n val result = storage.copyOfOf(size + elements.size)\n
for (element in elements) result[index++] = element.toByte()\n return UByteArray(result)\n}\n\n/**\n * Returns
an array containing all elements of the original array and then all elements of the given [elements] collection.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic
operator fun UShortArray.plus(elements: Collection<UShort>): UShortArray {\n var index = size\n val result =
storage.copyOfOf(size + elements.size)\n for (element in elements) result[index++] = element.toShort()\n return
UShortArray(result)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all
elements of the given [elements] array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UIntArray.plus(elements: UIntArray): UIntArray {\n return UIntArray(storage + elements.storage)\n}\n\n/**\n *
Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n

```

```

*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
ULongArray.plus(elements: ULongArray): ULongArray {\n    return ULongArray(storage +
elements.storage)\n}\n\n**\n * Returns an array containing all elements
of the original array and then all elements of the given [elements] array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UByteArray.plus(elements: UByteArray): UByteArray {\n    return UByteArray(storage +
elements.storage)\n}\n\n**\n * Returns an array containing all elements of the original array and then all elements
of the given [elements] array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UShortArray.plus(elements: UShortArray): UShortArray {\n    return UShortArray(storage +
elements.storage)\n}\n\n**\n * Sorts the array in-place.\n * \n * @sample
samples.collections.Arrays.Sorting.sortArray\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic
fun UIntArray.sort(): Unit {\n    if (size > 1) sortArray(this, 0, size)\n}\n\n**\n * Sorts the array in-place.\n * \n *
@sample samples.collections.Arrays.Sorting.sortArray\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic
fun ULongArray.sort(): Unit {\n    if (size > 1) sortArray(this, 0, size)\n}\n\n**\n * Sorts the array in-place.\n * \n *
@sample samples.collections.Arrays.Sorting.sortArray\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sort(): Unit {\n    if (size > 1)
sortArray(this, 0, size)\n}\n\n**\n * Sorts the array in-place.\n * \n * @sample
samples.collections.Arrays.Sorting.sortArray\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sort(): Unit {\n    if (size > 1)
sortArray(this, 0, size)\n}\n\n**\n * Sorts a range in the array in-
place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end
of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if
[fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws
IllegalArgumentException if
[fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sort(fromIndex: Int = 0, toIndex:
Int = size): Unit {\n    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    sortArray(this, fromIndex,
toIndex)\n}\n\n**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range
(inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by
default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than
the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n *
@sample samples.collections.Arrays.Sorting.sortRangeOfArray\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sort(fromIndex: Int = 0,
toIndex: Int = size): Unit {\n    AbstractList.checkRangeIndexes(fromIndex,
toIndex, size)\n    sortArray(this, fromIndex, toIndex)\n}\n\n**\n * Sorts a range in the array in-place.\n * \n *
@param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range
(exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is
less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if
[fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sort(fromIndex: Int = 0,
toIndex: Int = size): Unit {\n    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    sortArray(this,
fromIndex, toIndex)\n}\n\n**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the
range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive)
to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero
or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater
than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sort(fromIndex: Int = 0,

```

```

toIndex: Int = size): Unit {
    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)
    sortArray(this, fromIndex, toIndex)
}

/**
 * Sorts elements of the array in the specified range in-place.
 * The elements are sorted descending according to their natural sort order.
 * @param fromIndex the start of the range (inclusive) to sort.
 * @param toIndex the end of the range (exclusive) to sort.
 * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.
 * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].
 */
@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
public fun UIntArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {
    sort(fromIndex, toIndex)
    reverse(fromIndex, toIndex)
}

/**
 * Sorts elements of the array in the specified range in-place.
 * The elements are sorted descending according to their natural sort order.
 * @param fromIndex the start of the range (inclusive) to sort.
 * @param toIndex the end of the range (exclusive) to sort.
 * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.
 * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].
 */
@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
public fun ULongArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {
    sort(fromIndex, toIndex)
    reverse(fromIndex, toIndex)
}

/**
 * Sorts elements of the array in the specified range in-place.
 * The elements are sorted descending according to their natural sort order.
 * @param fromIndex the start of the range (inclusive) to sort.
 * @param toIndex the end of the range (exclusive) to sort.
 * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.
 * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].
 */
@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
public fun UByteArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {
    sort(fromIndex, toIndex)
    reverse(fromIndex, toIndex)
}

/**
 * Sorts elements of the array in the specified range in-place.
 * The elements are sorted descending according to their natural sort order.
 * @param fromIndex the start of the range (inclusive) to sort.
 * @param toIndex the end of the range (exclusive) to sort.
 * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.
 * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].
 */
@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
public fun UShortArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {
    sort(fromIndex, toIndex)
    reverse(fromIndex, toIndex)
}

/**
 * Returns an array of type [ByteArray], which is a copy of this array where each element is a signed reinterpretation of the corresponding element of this array.
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun UByteArray.toByteArray(): ByteArray {
    return storage.copyOf()
}

/**
 * Returns an array of type [IntArray], which is a copy of this array where each element is a signed reinterpretation of the corresponding element of this array.
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun UIntArray.toIntArray(): IntArray {
    return storage.copyOf()
}

/**
 * Returns an array of type [LongArray], which is a copy of this array where each element is a signed reinterpretation of the corresponding element of this array.
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun ULongArray.toLongArray(): LongArray {
    return storage.copyOf()
}

/**
 * Returns an array of type [ShortArray], which is a copy of this array where each element is a signed reinterpretation of the corresponding element of this array.
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun UShortArray.toShortArray(): ShortArray {
    return storage.copyOf()
}

/**
 * Returns a *typed* object array containing all of the elements of this primitive array.
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun UIntArray.toTypedArray(): Array<UInt> {
    return Array(size) { index -> this[index] }
}

```



array containing all of the elements of this primitive array.\n

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.toTypedArray():
Array<ULong> {\n    return Array(size) { index -> this[index] }\n}\n\n/**\n * Returns a *typed* object array
containing all of the elements of this primitive array.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.toTypedArray():
Array<UByte> {\n    return Array(size) { index -> this[index] }\n}\n\n/**\n * Returns a *typed* object array
containing all of the elements of this primitive array.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.toTypedArray():
Array<UShort> {\n    return Array(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of UByte containing
all of the elements of this generic array.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
Array<out UByte>.toUByteArray(): UByteArray {\n    return UByteArray(size) { index -> this[index]
}\n}\n\n/**\n * Returns an array of type [UByteArray], which is a copy of this array where each element is an
unsigned reinterpretation\n * of the corresponding element of this array.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ByteArray.toUByteArray(): UByteArray {\n    return UByteArray(this.copyOf())\n}\n\n/**\n * Returns an array of
UInt containing all of the elements of this generic array.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun Array<out UInt>.toUIntArray(): UIntArray
{\n    return UIntArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of type [UIntArray], which is a
copy of this array where each element is an unsigned reinterpretation\n * of the corresponding element of this
array.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
IntArray.toUIntArray(): UIntArray {\n    return UIntArray(this.copyOf())\n}\n\n/**\n * Returns an array of ULong containing all of the elements of this generic array.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun Array<out ULong>.toULongArray():
ULongArray {\n    return ULongArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of type
[ULongArray], which is a copy of this array where each element is an unsigned reinterpretation\n * of the
corresponding element of this array.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
LongArray.toULongArray(): ULongArray {\n    return ULongArray(this.copyOf())\n}\n\n/**\n * Returns an array
of UShort containing all of the elements of this generic array.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun Array<out UShort>.toUShortArray():
UShortArray {\n    return UShortArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of type
[UShortArray], which is a copy of this array where each element is an unsigned reinterpretation\n *
of the corresponding element of this array.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ShortArray.toUShortArray(): UShortArray {\n    return UShortArray(this.copyOf())\n}\n\n/**\n * Returns a [Map]
where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to
each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map
preserves the entry iteration order of the original array.\n * \n * @sample
samples.collections.Collections.Transformations.associateWith\n
```

```
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>
UIntArray.associateWith(valueSelector: (UInt) -> V): Map<UInt, V> {\n    val result = LinkedHashMap<UInt,
V>(mapCapacity(size).coerceAtLeast(16))\n    return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a
[Map] where keys are elements
from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If
any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry
iteration order of the original array.\n * \n * @sample
samples.collections.Collections.Transformations.associateWith\n
```

```
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>
```

```

ULongArray.associateWith(valueSelector: (ULong) -> V): Map<ULong, V> {\n  val result =
LinkedHashMap<ULong, V>(mapCapacity(size).coerceAtLeast(16))\n  return associateWithTo(result,
valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n *
produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one
gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n *
@sample
samples.collections.Collections.Transformations.associateWith\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>
UByteArray.associateWith(valueSelector: (UByte) -> V): Map<UByte, V> {\n  val result =
LinkedHashMap<UByte, V>(mapCapacity(size).coerceAtLeast(16))\n  return associateWithTo(result,
valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n *
produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one
gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n *
@sample samples.collections.Collections.Transformations.associateWith\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>
UShortArray.associateWith(valueSelector: (UShort) -> V): Map<UShort, V> {\n  val result =
LinkedHashMap<UShort, V>(mapCapacity(size).coerceAtLeast(16))\n
return associateWithTo(result, valueSelector)\n}\n\n/**\n * Populates and returns the [destination] mutable map
with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by
the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the
former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V, M :
MutableMap<in UInt, in V>> UIntArray.associateWithTo(destination: M, valueSelector: (UInt) -> V): M {\n  for
(element in this) {\n    destination.put(element, valueSelector(element))\n  }\n  return destination\n}\n\n/**\n *
Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n *
where key is the element itself and value is provided
by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites
the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V, M :
MutableMap<in ULong, in V>> ULongArray.associateWithTo(destination: M, valueSelector: (ULong) -> V): M
{\n  for (element in this) {\n    destination.put(element, valueSelector(element))\n  }\n  return
destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element
of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied
to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n *
@sample samples.collections.Collections.Transformations.associateWithTo\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun <V, M : MutableMap<in UByte, in V>> UByteArray.associateWithTo(destination: M, valueSelector:
(UByte) -> V): M {\n  for (element in this) {\n    destination.put(element, valueSelector(element))\n  }\n
return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each
element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function
applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n *
\n * @sample samples.collections.Collections.Transformations.associateWithTo\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V, M :
MutableMap<in UShort, in V>> UShortArray.associateWithTo(destination: M, valueSelector: (UShort) -> V): M
{\n  for (element in this) {\n    destination.put(element,
valueSelector(element))\n  }\n  return destination\n}\n\n/**\n * Returns a single list of all elements yielded from
results of [transform] function being invoked on each element of original array.\n * \n * @sample
samples.collections.Collections.Transformations.flatMap\n

```

```

*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UIntArray.flatMap(transform: (UInt) -> Iterable<R>): List<R> {\n    return flatMapTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being
invoked on each element of original array.\n * \n * @sample
samples.collections.Collections.Transformations.flatMap\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
ULongArray.flatMap(transform: (ULong) -> Iterable<R>): List<R> {\n    return flatMapTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Returns a single list of all elements yielded
from results of [transform] function being invoked on each element of original array.\n * \n * @sample
samples.collections.Collections.Transformations.flatMap\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UByteArray.flatMap(transform: (UByte) -> Iterable<R>): List<R> {\n    return flatMapTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being
invoked on each element of original array.\n * \n * @sample
samples.collections.Collections.Transformations.flatMap\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UShortArray.flatMap(transform: (UShort) -> Iterable<R>): List<R> {\n    return flatMapTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being
invoked on each element\n * and its index in the original array.\n * \n
* @sample samples.collections.Collections.Transformations.flatMapIndexed\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UIntArray.flatMapIndexed(transform: (index: Int, UInt) -> Iterable<R>): List<R> {\n    return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from
results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n *
@sample samples.collections.Collections.Transformations.flatMapIndexed\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
ULongArray.flatMapIndexed(transform: (index: Int, ULong) -> Iterable<R>): List<R> {\n    return
flatMapIndexedTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being
invoked on each element\n * and its index in the original array.\n * \n * @sample
samples.collections.Collections.Transformations.flatMapIndexed\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UByteArray.flatMapIndexed(transform: (index: Int, UByte) -> Iterable<R>): List<R> {\n    return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from
results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n *
@sample samples.collections.Collections.Transformations.flatMapIndexed\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun <R> UShortArray.flatMapIndexed(transform: (index: Int, UShort) -> Iterable<R>): List<R> {\n    return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Appends all elements yielded from results of
[transform] function being invoked on each element\n * and its index in the original array, to the given
[destination].\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C :
MutableCollection<in R>> UIntArray.flatMapIndexedTo(destination: C, transform: (index: Int, UInt) ->

```

```

Iterable<R>: C {
    var index = 0
    for (element in this) {
        val list = transform(index++, element)
        destination.addAll(list)
    }
    return destination
}
AppendAll Appends all elements yielded from results of
[transform] function being invoked on each element
and its index in the original array, to the given
[destination].

@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolution
ByLambdaReturnType
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun <R, C :
MutableCollection<in R>> ULongArray.flatMapIndexedTo(destination: C, transform: (index: Int, ULong) ->
Iterable<R>): C {
    var index = 0
    for (element in this) {
        val list = transform(index++, element)
        destination.addAll(list)
    }
    return destination
}
AppendAll Appends all elements yielded from results of
[transform] function being invoked on each element
and its index in the original array, to the given
[destination].

@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolution
ByLambdaReturnType
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun <R, C :
MutableCollection<in R>> UByteArray.flatMapIndexedTo(destination:
C, transform: (index: Int, UByte) -> Iterable<R>): C {
    var index = 0
    for (element in this) {
        val list =
transform(index++, element)
        destination.addAll(list)
    }
    return destination
}
AppendAll Appends all
elements yielded from results of [transform] function being invoked on each element
and its index in the original
array, to the given [destination].

@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolution
ByLambdaReturnType
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun <R, C :
MutableCollection<in R>> UShortArray.flatMapIndexedTo(destination: C, transform: (index: Int, UShort) ->
Iterable<R>): C {
    var index = 0
    for (element in this) {
        val list = transform(index++, element)
        destination.addAll(list)
    }
    return destination
}
AppendAll Appends all elements yielded from results of
[transform] function being invoked
on each element of original array, to the given [destination].

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun <R, C :
MutableCollection<in R>> UIntArray.flatMapTo(destination: C, transform: (UInt) -> Iterable<R>): C {
    for
(element in this) {
        val list = transform(element)
        destination.addAll(list)
    }
    return
destination
}
AppendAll Appends all elements yielded from results of [transform] function being invoked on each
element of original array, to the given [destination].

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun <R, C :
MutableCollection<in R>> ULongArray.flatMapTo(destination: C, transform: (ULong) -> Iterable<R>): C {
    for
(element in this) {
        val list = transform(element)
        destination.addAll(list)
    }
    return
destination
}
AppendAll Appends all elements yielded from results of [transform] function being
invoked on each element of original array, to the given [destination].

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun <R, C :
MutableCollection<in R>> UByteArray.flatMapTo(destination: C, transform: (UByte) -> Iterable<R>): C {
    for
(element in this) {
        val list = transform(element)
        destination.addAll(list)
    }
    return
destination
}
AppendAll Appends all elements yielded from results of [transform] function being invoked on each
element of original array, to the given [destination].

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun <R, C :
MutableCollection<in R>> UShortArray.flatMapTo(destination: C, transform: (UShort) -> Iterable<R>): C {
    for
(element in this) {
        val list = transform(element)
        destination.addAll(list)
    }
    return
destination
}
AppendAll Appends all elements yielded from results of [transform] function being invoked on each
element of original array, to the given [destination].

@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun <K>

```

```

UIntArray.groupBy(keySelector: (UInt) -> K): Map<K, List<UInt>> {\n  return groupByTo(LinkedHashMap<K,
MutableList<UInt>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the
given [keySelector] function\n * applied to each element and returns a map where each group key is associated with
a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced
from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*/\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun <K> ULongArray.groupBy(keySelector: (ULong) -> K): Map<K, List<ULong>> {\n  return
groupByTo(LinkedHashMap<K, MutableList<ULong>>(), keySelector)\n}\n\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map
where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the
entry iteration order of the keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupBy\n
*/\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K>
UByteArray.groupBy(keySelector: (UByte) -> K): Map<K, List<UByte>> {\n  return
groupByTo(LinkedHashMap<K, MutableList<UByte>>(), keySelector)\n}\n\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector]
function\n * applied to each element and returns a map where each group key is associated with a list of
corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the
original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*/\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K>
UShortArray.groupBy(keySelector: (UShort) -> K): Map<K, List<UShort>> {\n  return
groupByTo(LinkedHashMap<K, MutableList<UShort>>(), keySelector)\n}\n\n/**\n * Groups values returned by
the [valueTransform] function applied to each element of the original array\n * by the key returned by the given
[keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of
corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the
original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n
*/\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V>
UIntArray.groupBy(keySelector: (UInt) -> K, valueTransform: (UInt) -> V): Map<K, List<V>> {\n  return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values
returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by
the given [keySelector] function applied to the element\n * and returns a map where each group key is associated
with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys
produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n
*/\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V>
ULongArray.groupBy(keySelector: (ULong) -> K, valueTransform:
(ULong) -> V): Map<K, List<V>> {\n  return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector,
valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of
the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns
a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves
the entry iteration order of the keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n
*/\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V>
UByteArray.groupBy(keySelector: (UByte) -> K, valueTransform: (UByte) -> V): Map<K, List<V>> {\n  return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values
returned by the [valueTransform] function applied to each element
of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and
returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map

```

```

preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeyAndValues\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V>
UShortArray.groupBy(keySelector: (UShort) -> K, valueTransform: (UShort) -> V): Map<K, List<V>> {\n return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups elements
of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to
the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The
[destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, M
: MutableMap<in K, MutableList<UInt>>> UIntArray.groupByTo(destination: M, keySelector: (UInt) -> K): M {\n
for (element in this) {\n val key = keySelector(element)\n val list = destination.getOrPut(key) {
ArrayList<UInt>() }\n list.add(element)\n }\n return destination\n}\n\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the
[destination] map each group key associated with a list of corresponding elements.\n * \n * @return The
[destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, M :
MutableMap<in K, MutableList<ULong>>> ULongArray.groupByTo(destination: M, keySelector: (ULong)
-> K): M {\n for (element in this) {\n val key = keySelector(element)\n val list =
destination.getOrPut(key) { ArrayList<ULong>() }\n list.add(element)\n }\n return destination\n}\n\n/**\n *
Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each
element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n *
@return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, M :
MutableMap<in K, MutableList<UByte>>> UByteArray.groupByTo(destination: M, keySelector: (UByte) -> K):
M {\n for (element in this) {\n val key = keySelector(element)\n val list = destination.getOrPut(key) {
ArrayList<UByte>() }\n list.add(element)\n }\n return destination\n}\n\n/**\n * Groups elements
of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to
the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The
[destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, M :
MutableMap<in K, MutableList<UShort>>> UShortArray.groupByTo(destination: M, keySelector: (UShort) -> K):
M {\n for (element in this) {\n val key = keySelector(element)\n val list = destination.getOrPut(key) {
ArrayList<UShort>() }\n list.add(element)\n }\n return destination\n}\n\n/**\n * Groups values returned by
the [valueTransform] function applied to each element of the original array\n * by the key returned by the given
[keySelector] function applied to the element\n * and puts to the [destination] map each group key associated
with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeyAndValues\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V,
M : MutableMap<in K, MutableList<V>>> UIntArray.groupByTo(destination: M, keySelector: (UInt) -> K,
valueTransform: (UInt) -> V): M {\n for (element in this) {\n val key = keySelector(element)\n val list =
destination.getOrPut(key) { ArrayList<V>() }\n list.add(valueTransform(element))\n }\n return
destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the
original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the
[destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination]
map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeyAndValues\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V,
M : MutableMap<in K, MutableList<V>>> ULongArray.groupByTo(destination: M, keySelector: (ULong) -> K,
valueTransform: (ULong) -> V): M {\n for (element in this) {\n val key = keySelector(element)\n val list

```



```

transform))\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each
element and its index in the original array.\n * @param [transform] function that takes the index of an element and
the element itself\n * and returns the result of the transform applied to the element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UByteArray.mapIndexed(transform: (index: Int, UByte) -> R): List<R> {\n    return
mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the
given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function
that takes the index of an element and the element itself\n * and returns the result of the transform applied to the
element.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun <R> UShortArray.mapIndexed(transform:
(index: Int, UShort) -> R): List<R> {\n    return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n *
Applies the given [transform] function to each element and its index in the original array\n * and appends the results
to the given [destination].\n * @param [transform] function that takes the index of an element and the element
itself\n * and returns the result of the transform applied to the element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C :
MutableCollection<in R>> UIntArray.mapIndexedTo(destination: C, transform: (index: Int, UInt) -> R): C {\n    var
index = 0\n    for (item in this)\n        destination.add(transform(index++, item))\n    return destination\n}\n\n/**\n *
Applies the given [transform] function to each element and its index in the original array\n * and appends the results
to the given [destination].\n * @param [transform] function that takes the index of an element and the element
itself\n * and returns the result of the transform applied to the element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C :
MutableCollection<in R>> ULongArray.mapIndexedTo(destination: C, transform: (index: Int, ULong) -> R): C {\n
    var index = 0\n    for (item in this)\n        destination.add(transform(index++, item))\n    return
destination\n}\n\n/**\n * Applies the given [transform] function\n * to each element and its index in the original array\n
* and appends the results to the given [destination].\n * @param [transform] function that takes the index of an
element and the element itself\n * and returns the result of the transform applied to the element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C :
MutableCollection<in R>> UByteArray.mapIndexedTo(destination: C, transform: (index: Int, UByte) -> R): C {\n
    var index = 0\n    for (item in this)\n        destination.add(transform(index++, item))\n    return
destination\n}\n\n/**\n * Applies the given [transform]
function to each element and its index in the original array\n * and appends the results to the given [destination].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C :
MutableCollection<in R>> UShortArray.mapIndexedTo(destination: C, transform: (index: Int, UShort) -> R): C {\n
    var index = 0\n    for (item in this)\n        destination.add(transform(index++, item))\n    return
destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and
appends the results to the given [destination].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C :
MutableCollection<in
R>> UIntArray.mapTo(destination: C, transform: (UInt) -> R): C {\n    for (item in this)\n
destination.add(transform(item))\n    return destination\n}\n\n/**\n * Applies the given [transform] function to each
element of the original array\n * and appends the results to the given [destination].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C :
MutableCollection<in R>> ULongArray.mapTo(destination: C, transform: (ULong) -> R): C {\n    for (item in
this)\n        destination.add(transform(item))\n    return destination\n}\n\n/**\n * Applies the given [transform]
function to each element of the original array\n * and appends the results to the given [destination].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C :

```



```

MutableCollection<in R>> UByteArray.mapTo(destination: C, transform: (UByte) -> R): C {
    for (item in this)
        destination.add(transform(item))
    return destination
}

* Applies the given [transform] function to each element of the original array
and appends the results to the given [destination].

* Since Kotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun <R, C :
MutableCollection<in R>> UShortArray.mapTo(destination: C, transform: (UShort) -> R): C {
    for (item in
this)
        destination.add(transform(item))
    return destination
}

* Returns a lazy [Iterable] that wraps
each element of the original array
* into an [IndexedValue] containing the index of that element and the element
itself.

* Since Kotlin("1.3")
@ExperimentalUnsignedTypes
public fun UIntArray.withIndex():
Iterable<IndexedValue<UInt>> {
    return IndexingIterable { iterator() }
}

* Returns a lazy [Iterable]
that wraps each element of the original array
* into an [IndexedValue] containing the index of that element and the
element itself.

* Since Kotlin("1.3")
@ExperimentalUnsignedTypes
public
fun ULongArray.withIndex(): Iterable<IndexedValue<ULong>> {
    return IndexingIterable { iterator()
}
}

* Returns a lazy [Iterable] that wraps each element of the original array
* into an [IndexedValue]
containing the index of that element and the element itself.

* Since Kotlin("1.3")
@ExperimentalUnsignedTypes
public fun UByteArray.withIndex():
Iterable<IndexedValue<UByte>> {
    return IndexingIterable { iterator() }
}

* Returns a lazy [Iterable]
that wraps each element of the original array
* into an [IndexedValue] containing the index of that element and the
element itself.

* Since Kotlin("1.3")
@ExperimentalUnsignedTypes
public fun UShortArray.withIndex():
Iterable<IndexedValue<UShort>> {
    return IndexingIterable { iterator() }
}

* Returns `true` if all
elements match the given [predicate].
* Note that if the array contains no elements, the function returns
`true`
* because there are no elements in it that _do not_ match the predicate.
* See a more detailed explanation of this
logic concept in ["Vacuous truth"](https://en.wikipedia.org/wiki/Vacuous_truth) article.
* @sample
samples.collections.Collections.Aggregates.all

* Since Kotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun
UIntArray.all(predicate: (UInt) -> Boolean): Boolean {
    for (element in this) if (!predicate(element)) return
false
    return true
}

* Returns `true` if all elements match the given [predicate].
* Note that if the
array contains no elements, the function returns `true`
* because there are no elements in it that _do not_ match the
predicate.
* See a more detailed explanation of this logic concept in ["Vacuous
truth"](https://en.wikipedia.org/wiki/Vacuous_truth) article.
* @sample
samples.collections.Collections.Aggregates.all

* Since Kotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public
inline fun ULongArray.all(predicate: (ULong) -> Boolean): Boolean {
    for (element in this) if
(!predicate(element)) return false
    return true
}

* Returns `true` if all elements match the given
[predicate].
* Note that if the array contains no elements, the function returns `true`
* because there are no
elements in it that _do not_ match the predicate.
* See a more detailed explanation of this logic concept in
["Vacuous truth"](https://en.wikipedia.org/wiki/Vacuous_truth) article.
* @sample
samples.collections.Collections.Aggregates.all

* Since Kotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun
UByteArray.all(predicate: (UByte) -> Boolean): Boolean {
    for (element in this) if (!predicate(element)) return
false
    return true
}

* Returns `true` if all elements match the given [predicate].
* Note that if the
array contains no elements, the function
returns `true`
* because there are no elements in it that _do not_ match the predicate.
* See a more detailed
explanation of this logic concept in ["Vacuous truth"](https://en.wikipedia.org/wiki/Vacuous_truth) article.
* @sample
samples.collections.Collections.Aggregates.all

* Since Kotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun
UShortArray.all(predicate: (UShort) -> Boolean): Boolean {
    for (element in this) if (!predicate(element)) return

```

```

false\n    return true\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample
samples.collections.Collections.Aggregates.any\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.any(): Boolean {\n    return storage.any()\n}\n\n/**\n * Returns `true` if array has at least one element.\n
* \n * @sample samples.collections.Collections.Aggregates.any\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.any(): Boolean {\n    return storage.any()\n}\n\n/**\n * Returns `true` if array has at least
one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.any(): Boolean {\n    return storage.any()\n}\n\n/**\n * Returns `true` if array has at least one
element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.any(): Boolean {\n    return storage.any()\n}\n\n/**\n * Returns `true` if at least one element matches
the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.any(predicate: (UInt) -> Boolean): Boolean {\n
    for (element in this) if (predicate(element)) return true\n    return false\n}\n\n/**\n * Returns `true` if at least one
element matches the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.anyWithPredicate\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.any(predicate: (ULong) -> Boolean): Boolean {\n
    for (element in this) if (predicate(element)) return
true\n    return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n *
@sample samples.collections.Collections.Aggregates.anyWithPredicate\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.any(predicate: (UByte) -> Boolean): Boolean {\n
    for (element in this) if (predicate(element)) return
true\n    return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n *
@sample samples.collections.Collections.Aggregates.anyWithPredicate\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.any(predicate: (UShort) -> Boolean): Boolean {\n
    for (element in this) if (predicate(element)) return
true\n    return false\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.count(predicate: (UInt) -> Boolean): Int {\n
    var count = 0\n    for (element in this) if
(predicate(element)) ++count\n    return count\n}\n\n/**\n * Returns the number of elements matching the given
[predicate].\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.count(predicate: (ULong) -> Boolean): Int {\n
    var count = 0\n    for (element in this) if
(predicate(element)) ++count\n    return count\n}\n\n/**\n * Returns the number of elements
matching the given [predicate].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.count(predicate: (UByte) -> Boolean): Int {\n
    var count = 0\n    for (element in this) if
(predicate(element)) ++count\n    return count\n}\n\n/**\n * Returns the number of elements matching the given
[predicate].\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UShortArray.count(predicate: (UShort) -> Boolean): Int {\n
    var count = 0\n    for (element in this) if
(predicate(element)) ++count\n    return count\n}\n\n/**\n * Accumulates value starting with [initial] value and
applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the
specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator
value and an element, and calculates the next accumulator value.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic

```

```

inline fun <R> UIntArray.fold(initial: R, operation: (acc: R, UInt) -> R): R {
    var accumulator = initial
    for (element in this) accumulator = operation(accumulator, element)
    return accumulator
}

// Accumulates value starting with [initial] value and applying [operation] from left to right
// * to current accumulator value and each element.
// * Returns the specified [initial] value if the array is empty.
// * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.

*\/n@SinceKotlin("1.3")n@ExperimentalUnsignedTypesn@kotlin.internal.InlineOnlynpublic inline fun <R>
ULongArray.fold(initial: R, operation: (acc: R, ULong) -> R): R {
    var accumulator = initial
    for (element in this) accumulator = operation(accumulator, element)
    return accumulator
}

// Accumulates value starting with [initial] value and applying [operation] from left to right
// * to current accumulator value and each element.
// * Returns the specified [initial] value if the array is empty.
// * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.

*\/n@SinceKotlin("1.3")n@ExperimentalUnsignedTypesn@kotlin.internal.InlineOnlynpublic inline fun <R>
UByteArray.fold(initial: R, operation: (acc: R, UByte) -> R): R {
    var accumulator = initial
    for (element in this) accumulator = operation(accumulator, element)
    return accumulator
}

// Accumulates value starting with [initial] value and applying [operation] from left to right
// * to current accumulator value and each element.
// * Returns the specified [initial] value if the array is empty.
// * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.

*\/n@SinceKotlin("1.3")n@ExperimentalUnsignedTypesn@kotlin.internal.InlineOnlynpublic
inline fun <R> UShortArray.fold(initial: R, operation: (acc: R, UShort) -> R): R {
    var accumulator = initial
    for (element in this) accumulator = operation(accumulator, element)
    return accumulator
}

// Accumulates value starting with [initial] value and applying [operation] from left to right
// * to current accumulator value and each element with its index in the original array.
// * Returns the specified [initial] value if the array is empty.
// * @param [operation] function that takes the index of an element, current accumulator value
// * and the element itself, and calculates the next accumulator value.

*\/n@SinceKotlin("1.3")n@ExperimentalUnsignedTypesn@kotlin.internal.InlineOnlynpublic inline fun <R>
UIntArray.foldIndexed(initial: R, operation: (index: Int, acc: R, UInt) -> R): R {
    var index = 0
    var accumulator = initial
    for (element in this) accumulator = operation(index++, accumulator, element)
    return accumulator
}

// Accumulates value starting with [initial] value and applying [operation] from left to right
// * to current accumulator value and each element with its index in the original array.
// * Returns the specified [initial] value if the array is empty.
// * @param [operation] function that takes the index of an element, current accumulator value
// * and the element itself, and calculates the next accumulator value.

*\/n@SinceKotlin("1.3")n@ExperimentalUnsignedTypesn@kotlin.internal.InlineOnlynpublic inline fun <R>
ULongArray.foldIndexed(initial: R, operation: (index: Int, acc: R, ULong) -> R): R {
    var index = 0
    var accumulator = initial
    for (element in this) accumulator = operation(index++, accumulator, element)
    return accumulator
}

// Accumulates value starting with [initial] value and applying [operation] from left to right
// * to current accumulator value and each element with its index in the original array.
// * Returns the specified [initial] value if the array is empty.
// * @param [operation] function that takes the index of an element, current accumulator value
// * and the element itself, and calculates the next accumulator value.

*\/n@SinceKotlin("1.3")n@ExperimentalUnsignedTypesn@kotlin.internal.InlineOnlynpublic inline fun <R>
UByteArray.foldIndexed(initial: R, operation: (index: Int, acc: R, UByte) -> R): R {
    var index = 0
    var accumulator = initial
    for (element in this) accumulator = operation(index++, accumulator, element)
    return accumulator
}

// Accumulates value starting with [initial] value and applying [operation] from left to right
// * to current accumulator value and each element with its index in the original array.
// * Returns the specified [initial] value if the array is empty.
// * @param [operation] function that takes the index of an element, current accumulator value
// * and the element itself,

```

and calculates the next accumulator value.\n

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>\nUShortArray.foldIndexed(initial: R, operation: (index: Int, acc: R, UShort) -> R): R {\n    var index = 0\n    var accumulator = initial\n    for (element in this) accumulator = operation(index++, accumulator, element)\n    return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>\nUIntArray.foldRight(initial: R, operation: (UInt, acc: R) -> R): R {\n    var index = lastIndex\n    var accumulator = initial\n\n    while (index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>\nULongArray.foldRight(initial: R, operation: (ULong, acc: R) -> R): R {\n    var index = lastIndex\n    var accumulator = initial\n    while (index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>\nUByteArray.foldRight(initial: R, operation: (UByte, acc: R) -> R): R {\n    var index = lastIndex\n    var accumulator = initial\n    while (index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>\nUShortArray.foldRight(initial: R, operation: (UShort, acc: R) -> R): R {\n    var index = lastIndex\n    var accumulator = initial\n    while (index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>\nUIntArray.foldRightIndexed(initial: R, operation: (index: Int, UInt, acc: R) -> R): R {\n    var index = lastIndex\n    var accumulator = initial\n    while (index >= 0) {\n        accumulator = operation(index, get(index), accumulator)\n        --index\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */
```

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*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>\nULongArray.foldRightIndexed(initial: R, operation: (index: Int, ULong, acc: R) -> R): R {\n    var index = lastIndex\n    var accumulator = initial\n    while (index >= 0) {\n        accumulator = operation(index, get(index), accumulator)\n        --index\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */
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accumulator)\n    --index\n } \n return accumulator\n}\n\n/**\n * Accumulates value starting with [initial]
value and applying [operation]
from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n *
Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index
of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n
*\n *@SinceKotlin("1.3")\n @ExperimentalUnsignedTypes\n @kotlin.internal.InlineOnly\n public inline fun <R>
UByteArray.foldRightIndexed(initial: R, operation: (index: Int, UByte, acc: R) -> R): R {\n    var index =
lastIndex\n    var accumulator = initial\n    while (index >= 0) {\n        accumulator = operation(index, get(index),
accumulator)\n        --index\n    } \n return accumulator\n}\n\n/**\n * Accumulates value starting with [initial]
value and applying [operation] from right to left\n * to each element with its index in the original array and current
accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n
* \n * @param [operation] function that takes the index of an element, the element itself\n * and current
accumulator value, and calculates the next accumulator value.\n
*\n *@SinceKotlin("1.3")\n @ExperimentalUnsignedTypes\n @kotlin.internal.InlineOnly\n public inline fun <R>
UShortArray.foldRightIndexed(initial: R, operation: (index: Int, UShort, acc: R) -> R): R {\n    var index =
lastIndex\n    var accumulator = initial\n    while (index >= 0) {\n        accumulator = operation(index, get(index),
accumulator)\n        --index\n    } \n return accumulator\n}\n\n/**\n * Performs the given [action] on each
element.\n *\n *@SinceKotlin("1.3")\n @ExperimentalUnsignedTypes\n @kotlin.internal.InlineOnly\n public inline
fun UIntArray.forEach(action: (UInt) -> Unit): Unit {\n    for (element in this) action(element)\n }\n\n/**\n *
Performs the given [action] on each element.\n
*\n *@SinceKotlin("1.3")\n @ExperimentalUnsignedTypes\n @kotlin.internal.InlineOnly\n public inline fun
ULongArray.forEach(action:
(UIntLong) -> Unit): Unit {\n    for (element in this) action(element)\n }\n\n/**\n * Performs the given [action] on each
element.\n *\n *@SinceKotlin("1.3")\n @ExperimentalUnsignedTypes\n @kotlin.internal.InlineOnly\n public inline
fun UByteArray.forEach(action: (UByte) -> Unit): Unit {\n    for (element in this) action(element)\n }\n\n/**\n *
Performs the given [action] on each element.\n
*\n *@SinceKotlin("1.3")\n @ExperimentalUnsignedTypes\n @kotlin.internal.InlineOnly\n public inline fun
UShortArray.forEach(action: (UShort) -> Unit): Unit {\n    for (element in this) action(element)\n }\n\n/**\n *
Performs the given [action] on each element, providing sequential index with the element.\n * @param [action]
function that takes the index of an element and the element itself\n * and performs the action on the element.\n
*\n *@SinceKotlin("1.3")\n @ExperimentalUnsignedTypes\n @kotlin.internal.InlineOnly\n public inline fun
UIntArray.forEachIndexed(action: (index: Int, UInt) -> Unit):
Unit {\n    var index = 0\n    for (item in this) action(index++, item)\n }\n\n/**\n * Performs the given [action] on
each element, providing sequential index with the element.\n * @param [action] function that takes the index of an
element and the element itself\n * and performs the action on the element.\n
*\n *@SinceKotlin("1.3")\n @ExperimentalUnsignedTypes\n @kotlin.internal.InlineOnly\n public inline fun
ULongArray.forEachIndexed(action: (index: Int, ULong) -> Unit): Unit {\n    var index = 0\n    for (item in this)
action(index++, item)\n }\n\n/**\n * Performs the given [action] on each element, providing sequential index
with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and
performs the action on the element.\n
*\n *@SinceKotlin("1.3")\n @ExperimentalUnsignedTypes\n @kotlin.internal.InlineOnly\n public inline fun
UByteArray.forEachIndexed(action: (index: Int, UByte) -> Unit): Unit {\n    var index = 0\n    for (item in
this) action(index++, item)\n }\n\n/**\n * Performs the given [action] on each element, providing sequential index
with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and
performs the action on the element.\n
*\n *@SinceKotlin("1.3")\n @ExperimentalUnsignedTypes\n @kotlin.internal.InlineOnly\n public inline fun
UShortArray.forEachIndexed(action: (index: Int, UShort) -> Unit): Unit {\n    var index = 0\n    for (item in this)
action(index++, item)\n }\n\n/**\n * Returns the largest element.\n * \n * @throws NoSuchElementException if the

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array is empty.\n * \n @SinceKotlin("1.7")\n @kotlin.jvm.JvmName("maxOrThrow-
U")\n @ExperimentalUnsignedTypes\n @Suppress("CONFLICTING_OVERLOADS")\n public fun
UIntArray.max(): UInt {\n     if (isEmpty()) throw NoSuchElementException()\n     var max = this[0]\n     for (i in
1..lastIndex) {\n         val e = this[i]\n         if (max < e) max = e\n     }\n     return max\n }\n\n /**\n  * Returns the largest
element.\n  *\n  * @throws NoSuchElementException if the array is empty.\n  */\n
*\n @SinceKotlin("1.7")\n @kotlin.jvm.JvmName("maxOrThrow-
U")\n @ExperimentalUnsignedTypes\n @Suppress("CONFLICTING_OVERLOADS")\n public fun
ULongArray.max(): ULong {\n     if (isEmpty()) throw NoSuchElementException()\n     var max = this[0]\n     for (i
in 1..lastIndex) {\n         val e = this[i]\n         if (max < e) max = e\n     }\n     return max\n }\n\n /**\n  * Returns the
largest element.\n  *\n  * @throws NoSuchElementException if the array is empty.\n  */\n
*\n @SinceKotlin("1.7")\n @kotlin.jvm.JvmName("maxOrThrow-
U")\n @ExperimentalUnsignedTypes\n @Suppress("CONFLICTING_OVERLOADS")\n public fun
UByteArray.max(): UByte {\n     if (isEmpty()) throw NoSuchElementException()\n     var max = this[0]\n     for (i in
1..lastIndex) {\n         val e = this[i]\n         if (max < e) max = e\n     }\n     return max\n }\n\n /**\n  * Returns the largest
element.\n  *\n  * @throws NoSuchElementException if the array is empty.\n  */\n
*\n @SinceKotlin("1.7")\n @kotlin.jvm.JvmName("maxOrThrow-
U")\n @ExperimentalUnsignedTypes\n @Suppress("CONFLICTING_OVERLOADS")\n public
fun UShortArray.max(): UShort {\n     if (isEmpty()) throw NoSuchElementException()\n     var max = this[0]\n
for (i in 1..lastIndex) {\n         val e = this[i]\n         if (max < e) max = e\n     }\n     return max\n }\n\n /**\n  * Returns
the first element yielding the largest value of the given function.\n  *\n  * @throws NoSuchElementException if the
array is empty.\n  *\n  * @sample samples.collections.Collections.Aggregates.maxBy\n  */\n
*\n @SinceKotlin("1.7")\n @kotlin.jvm.JvmName("maxByOrThrow-
U")\n @ExperimentalUnsignedTypes\n @kotlin.internal.InlineOnly\n @Suppress("CONFLICTING_OVERLOADS
")\n public inline fun <R : Comparable<R>> UIntArray.maxBy(selector: (UInt) -> R): UInt {\n     if (isEmpty())
throw NoSuchElementException()\n     var maxElem = this[0]\n     val lastIndex = this.lastIndex\n     if (lastIndex ==
0) return maxElem\n     var maxValue = selector(maxElem)\n     for (i in 1..lastIndex) {\n         val e = this[i]\n
         val v = selector(e)\n         if (maxValue < v) {\n             maxElem
= e\n             maxValue = v\n         }\n     }\n     return maxElem\n }\n\n /**\n  * Returns the first element yielding the
largest value of the given function.\n  *\n  * @throws NoSuchElementException if the array is empty.\n  *\n  *
@sample samples.collections.Collections.Aggregates.maxBy\n  */\n
*\n @SinceKotlin("1.7")\n @kotlin.jvm.JvmName("maxByOrThrow-
U")\n @ExperimentalUnsignedTypes\n @kotlin.internal.InlineOnly\n @Suppress("CONFLICTING_OVERLOADS
")\n public inline fun <R : Comparable<R>> ULongArray.maxBy(selector: (ULong) -> R): ULong {\n     if
(isEmpty()) throw NoSuchElementException()\n     var maxElem = this[0]\n     val lastIndex = this.lastIndex\n     if
(lastIndex == 0) return maxElem\n     var maxValue = selector(maxElem)\n     for (i in 1..lastIndex) {\n         val e =
this[i]\n         val v = selector(e)\n         if (maxValue < v) {\n            
maxElem = e\n             maxValue = v\n         }\n     }\n     return maxElem\n }\n\n /**\n  * Returns the first element
yielding the largest value of the given function.\n  *\n  * @throws NoSuchElementException if the array is empty.\n  *\n
* @sample samples.collections.Collections.Aggregates.maxBy\n  */\n
*\n @SinceKotlin("1.7")\n @kotlin.jvm.JvmName("maxByOrThrow-
U")\n @ExperimentalUnsignedTypes\n @kotlin.internal.InlineOnly\n @Suppress("CONFLICTING_OVERLOADS
")\n public inline fun <R : Comparable<R>> UByteArray.maxBy(selector: (UByte) -> R): UByte {\n     if
(isEmpty()) throw NoSuchElementException()\n     var maxElem = this[0]\n     val lastIndex = this.lastIndex\n     if
(lastIndex == 0) return maxElem\n     var maxValue = selector(maxElem)\n     for (i in 1..lastIndex) {\n         val e =
this[i]\n         val v = selector(e)\n         if (maxValue < v) {\n            
maxElem = e\n             maxValue = v\n         }\n     }\n     return maxElem\n }\n\n /**\n  * Returns the first element
yielding the largest

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value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample
samples.collections.Collections.Aggregates.maxBy\n
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("maxByOrThrow-
U")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\n@Suppress("CONFLICTING_OVERLOADS
")\npublic inline fun <R : Comparable<R>> UShortArray.maxBy(selector: (UShort) -> R): UShort {\n if
(isEmpty()) throw NoSuchElementException()\n var maxElem = this[0]\n val lastIndex = this.lastIndex\n if
(lastIndex == 0) return maxElem\n var maxValue = selector(maxElem)\n for (i in 1..lastIndex) {\n val e =
this[i]\n val v = selector(e)\n if (maxValue < v) {\n maxElem = e\n maxValue = v\n }\n }\n return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or
`null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UIntArray.maxByOrNull(selector: (UInt) -> R): UInt? {\n if (isEmpty()) return null\n var
maxElem = this[0]\n val lastIndex = this.lastIndex\n if (lastIndex == 0) return maxElem\n var maxValue =
selector(maxElem)\n for (i in 1..lastIndex) {\n val e = this[i]\n val v = selector(e)\n if (maxValue < v)
{\n maxElem = e\n maxValue = v\n }\n }\n return maxElem\n}\n\n/**\n * Returns the first
element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.maxByOrNull\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> ULongArray.maxByOrNull(selector: (ULong) -> R): ULong? {\n if (isEmpty()) return null\n
var maxElem = this[0]\n
val lastIndex = this.lastIndex\n if (lastIndex == 0) return maxElem\n var maxValue = selector(maxElem)\n
for (i in 1..lastIndex) {\n val e = this[i]\n val v = selector(e)\n if (maxValue < v) {\n maxElem =
e\n maxValue = v\n }\n }\n return maxElem\n}\n\n/**\n * Returns the first element yielding the
largest value of the given function or `null` if there are no elements.\n * \n * @sample
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*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UByteArray.maxByOrNull(selector: (UByte) -> R): UByte? {\n if (isEmpty()) return null\n
var maxElem = this[0]\n val lastIndex = this.lastIndex\n if (lastIndex == 0) return maxElem\n var maxValue =
selector(maxElem)\n for (i in 1..lastIndex) {\n val e = this[i]\n val v = selector(e)\n if (maxValue < v)
{\n maxElem = e\n maxValue = v\n }\n }\n return maxElem\n}\n\n/**\n * Returns the first element yielding the
largest value of the given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.maxByOrNull\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UShortArray.maxByOrNull(selector: (UShort) -> R): UShort? {\n if (isEmpty()) return null\n
var maxElem = this[0]\n val lastIndex = this.lastIndex\n if (lastIndex == 0) return maxElem\n var maxValue =
selector(maxElem)\n for (i in 1..lastIndex) {\n val e = this[i]\n val v = selector(e)\n if (maxValue < v)
{\n maxElem = e\n maxValue = v\n }\n }\n return maxElem\n}\n\n/**\n * Returns the largest
value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of
values produced by [selector]
function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.maxOf(selector: (UInt) -> Double): Double {\n if (isEmpty()) throw NoSuchElementException()\n
var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n maxValue =
maxOf(maxValue, v)\n }\n return maxValue\n}\n\n/**\n * Returns the largest value among all values produced
by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector]
function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n

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ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.maxOf(selector: (ULong) -> Double): Double {\n if (isEmpty()) throw
NoSuchElementException()\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v =
selector(this[i])\n maxValue = maxOf(maxValue, v)\n }\n return maxValue\n}\n\n/**\n * Returns the
largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If
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UByteArray.maxOf(selector: (UByte) -> Double): Double {\n if (isEmpty()) throw NoSuchElementException()\n
var maxValue =
selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n maxValue = maxOf(maxValue, v)\n
}\n return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n *
applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the
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*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.maxOf(selector: (UShort) -> Double): Double {\n if (isEmpty()) throw
NoSuchElementException()\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v =
selector(this[i])\n maxValue = maxOf(maxValue, v)\n }\n return maxValue\n}\n\n/**\n * Returns the
largest value among all values produced by [selector]
function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`,
the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n

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*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.maxOf(selector: (UInt) -> Float): Float {\n if (isEmpty()) throw NoSuchElementException()\n var
maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n maxValue =
maxOf(maxValue, v)\n }\n return maxValue\n}\n\n/**\n * Returns the largest value among all values produced
by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector]
function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n

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*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.maxOf(selector: (ULong) -> Float): Float {\n if (isEmpty()) throw
NoSuchElementException()\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v =
selector(this[i])\n maxValue = maxOf(maxValue, v)\n }\n return maxValue\n}\n\n/**\n * Returns the
largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If
any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws
NoSuchElementException if the array is empty.\n

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*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.maxOf(selector: (UByte)
-> Float): Float {\n if (isEmpty()) throw NoSuchElementException()\n var maxValue = selector(this[0])\n for
(i in 1..lastIndex) {\n val v = selector(this[i])\n maxValue = maxOf(maxValue, v)\n }\n return
maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n

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*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

```



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ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.maxOf(selector: (UShort) -> Float): Float {\n  if (isEmpty()) throw NoSuchElementException()\n
var maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    maxValue =
maxOf(maxValue, v)\n  }\n
  return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n *
applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UIntArray.maxOf(selector: (UInt) -> R): R {\n  if (isEmpty()) throw
NoSuchElementException()\n  var maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v =
selector(this[i])\n    if (maxValue < v) {\n      maxValue = v\n    }\n  }\n  return maxValue\n}\n\n/**\n *
Returns the largest value among all values produced by [selector] function\n * applied to each element in the
array.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun <R : Comparable<R>> ULongArray.maxOf(selector: (ULong) -> R): R {\n  if (isEmpty()) throw
NoSuchElementException()\n  var maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v =
selector(this[i])\n    if (maxValue < v) {\n      maxValue = v\n    }\n  }\n  return maxValue\n}\n\n/**\n *
Returns the largest value among all values produced by [selector] function\n * applied to each element in the
array.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UByteArray.maxOf(selector: (UByte) -> R): R {\n  if (isEmpty()) throw
NoSuchElementException()\n  var maxValue = selector(this[0])\n
  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (maxValue < v) {\n      maxValue = v\n   
}\n  }\n  return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n *
applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UShortArray.maxOf(selector: (UShort) -> R): R {\n  if (isEmpty()) throw
NoSuchElementException()\n  var maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v =
selector(this[i])\n    if (maxValue < v) {\n      maxValue = v\n    }\n  }\n  return maxValue\n}\n\n/**\n *
Returns the largest value among all values produced by [selector] function\n * applied to each element in the
array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the
returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.maxOfOrNull(selector: (UInt) -> Double): Double? {\n  if (isEmpty()) return null\n  var maxValue =
selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    maxValue = maxOf(maxValue, v)\n
  }\n  return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n *
applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector]
function is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.maxOfOrNull(selector: (ULong) -> Double): Double? {\n  if (isEmpty()) return null\n
var maxValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    maxValue =
maxOf(maxValue, v)\n  }\n  return maxValue\n}\n\n/**\n * Returns the largest value among all values produced
by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of

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values produced by [selector] function is `NaN`, the returned result is `NaN`.
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.maxOfOrNull(selector: (UByte) -> Double): Double? {\n if (isEmpty()) return null\n var maxValue
= selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n
maxValue = maxOf(maxValue, v)\n }\n return maxValue\n}\n\n**\n * Returns the largest value among all
values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n *
\n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.maxOfOrNull(selector: (UShort) -> Double): Double? {\n if (isEmpty()) return null\n var
maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n
maxValue =
maxOf(maxValue, v)\n }\n return maxValue\n}\n\n**\n * Returns the largest value among all values produced
by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of
values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.maxOfOrNull(selector: (UInt) -> Float): Float? {\n if (isEmpty()) return null\n var maxValue =
selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n
maxValue = maxOf(maxValue, v)\n
}\n return maxValue\n}\n\n**\n * Returns the largest value among all values produced by [selector] function\n *
applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector]
function is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.maxOfOrNull(selector: (ULong) -> Float): Float? {\n if (isEmpty()) return null\n var
maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n
maxValue =
maxOf(maxValue, v)\n }\n return maxValue\n}\n\n**\n * Returns the largest value among all values produced
by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of
values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.maxOfOrNull(selector: (UByte) -> Float): Float? {\n if (isEmpty()) return null\n var maxValue =
selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n
maxValue = maxOf(maxValue, v)\n
}\n return
maxValue\n}\n\n**\n * Returns the largest value among all values produced by [selector] function\n * applied to
each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function
is `NaN`, the returned result is `NaN`.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.maxOfOrNull(selector: (UShort) -> Float): Float? {\n if (isEmpty()) return null\n var maxValue =
selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n
maxValue = maxOf(maxValue, v)\n
}\n return maxValue\n}\n\n**\n * Returns the largest value among all values produced by [selector] function\n *
applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun <R : Comparable<R>> UIntArray.maxOfOrNull(selector: (UInt) -> R): R? {\n if (isEmpty()) return
null\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n
if
(maxValue < v) {\n
maxValue = v\n
}\n }\n return maxValue\n}\n\n**\n * Returns the largest value

```

among all values produced by [selector] function\n \* applied to each element in the array or `null` if there are no elements.\n

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> ULongArray.maxOfOrNull(selector: (ULong) -> R): R? {\n    if (isEmpty()) return null\n    var\n    maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if (maxValue < v) {\n            maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UByteArray.maxOfOrNull(selector: (UByte) -> R): R? {\n    if (isEmpty()) return null\n    var\n    maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if (maxValue < v) {\n            maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic\ninline fun <R : Comparable<R>> UShortArray.maxOfOrNull(selector: (UShort) -> R): R? {\n    if (isEmpty())\n    return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if\n        (maxValue < v) {\n            maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>\nUIntArray.maxOfWith(comparator: Comparator<in R>, selector: (UInt) -> R): R {\n    if (isEmpty()) throw\n    NoSuchElementException()\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if\n        (comparator.compare(maxValue, v) < 0) {\n            maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>\nULongArray.maxOfWith(comparator: Comparator<in R>, selector: (ULong) -> R): R {\n    if (isEmpty()) throw\n    NoSuchElementException()\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =\n        selector(this[i])\n        if (comparator.compare(maxValue, v) < 0) {\n            maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws\n    NoSuchElementException if the array is empty.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>\nUByteArray.maxOfWith(comparator: Comparator<in R>, selector: (UByte) -> R): R {\n    if (isEmpty()) throw\n    NoSuchElementException()\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =\n        selector(this[i])\n        if (comparator.compare(maxValue, v) < 0) {\n            maxValue = v\n        }\n    }\n    return\n    maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * \n * @throws\n    NoSuchElementException if the array is empty.\n
```

```
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution\nByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
```

```

UShortArray.maxOfWith(comparator: Comparator<in R>, selector: (UShort) -> R): R {
    if (isEmpty()) throw NoSuchElementException()
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        if (comparator.compare(maxValue, v) < 0) {
            maxValue = v
        }
    }
    return maxValue
}

/** Returns the largest value according to the provided [comparator] among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.

*/
@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun <R> UIntArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (UInt) -> R): R? {
    if (isEmpty()) return null
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        if (comparator.compare(maxValue, v) < 0) {
            maxValue = v
        }
    }
    return maxValue
}

/** Returns the largest value according to the provided [comparator] among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.

*/
@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun <R> ULongArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (ULong) -> R): R? {
    if (isEmpty()) return null
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        if (comparator.compare(maxValue, v) < 0) {
            maxValue = v
        }
    }
    return maxValue
}

/** Returns the largest value according to the provided [comparator] among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.

*/
@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun <R> UByteArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (UByte) -> R): R? {
    if (isEmpty()) return null
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        if (comparator.compare(maxValue, v) < 0) {
            maxValue = v
        }
    }
    return maxValue
}

/** Returns the largest value according to the provided [comparator] among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.

*/
@SinceKotlin("1.4")
@OptIn(kotlin.experimental.ExperimentalTypeInference::class)
@OverloadResolutionByLambdaReturnType
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun <R> UShortArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (UShort) -> R): R? {
    if (isEmpty()) return null
    var maxValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        if (comparator.compare(maxValue, v) < 0) {
            maxValue = v
        }
    }
    return maxValue
}

/** Returns the largest element or `null` if there are no elements.

*/
@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
public fun UIntArray.maxOrNull(): UInt? {
    if (isEmpty()) return null
    var max = this[0]
    for (i in 1..lastIndex) {
        val e = this[i]
        if (max < e) max = e
    }
    return max
}

/** Returns the largest element or `null` if there are no elements.

*/
@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
public fun ULongArray.maxOrNull(): ULong? {
    if (isEmpty()) return null
    var max = this[0]
    for (i in 1..lastIndex) {
        val e = this[i]
        if (max < e) max = e
    }
    return max
}

/** Returns the largest element or `null` if there are no elements.

*/
@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
public fun UByteArray.maxOrNull(): UByte? {
    if (isEmpty()) return null
    var max = this[0]
    for (i in 1..lastIndex) {
        val e = this[i]
        if (max < e) max = e
    }
    return max
}

/** Returns the largest element or `null` if there are no elements.

*/
@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
public fun UShortArray.maxOrNull(): UShort? {
    if (isEmpty()) return null
    var max = this[0]
    for (i in 1..lastIndex) {
        val e = this[i]
        if (max < e) max = e
    }
    return max
}

/** Returns the first element having the largest value according to the provided [comparator].

*/
* @throws NoSuchElementException if the array is empty.

*/
@SinceKotlin("1.7")
@kotlin.jvm.JvmName("maxWithOrThrow")

```

```

U()\n@ExperimentalUnsignedTypes\n@Suppress(\`CONFLICTING_OVERLOADS\`)\npublic fun
UIntArray.maxWith(comparator: Comparator<in UInt>): UInt {\n    if (isEmpty()) throw
NoSuchElementException()\n    var max = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if
(comparator.compare(max, e) < 0) max = e\n    }\n    return max\n}\n\n/**\n * Returns the first element having the
largest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is
empty.\n * \n *\n@SinceKotlin(\`1.7\`)\n@kotlin.jvm.JvmName(\`maxWithOrThrow-
U()\n@ExperimentalUnsignedTypes\n@Suppress(\`CONFLICTING_OVERLOADS\`)\npublic fun
ULongArray.maxWith(comparator: Comparator<in ULong>): ULong {\n    if (isEmpty()) throw
NoSuchElementException()\n
    var max = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (comparator.compare(max, e) < 0) max
= e\n    }\n    return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided
[comparator].\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin(\`1.7\`)\n@kotlin.jvm.JvmName(\`maxWithOrThrow-
U()\n@ExperimentalUnsignedTypes\n@Suppress(\`CONFLICTING_OVERLOADS\`)\npublic fun
UByteArray.maxWith(comparator: Comparator<in UByte>): UByte {\n    if (isEmpty()) throw
NoSuchElementException()\n    var max = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if
(comparator.compare(max, e) < 0) max = e\n    }\n    return max\n}\n\n/**\n * Returns the first element having the
largest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is
empty.\n * \n *\n@SinceKotlin(\`1.7\`)\n@kotlin.jvm.JvmName(\`maxWithOrThrow-
U()\n@ExperimentalUnsignedTypes\n@Suppress(\`CONFLICTING_OVERLOADS\`)\npublic
fun UShortArray.maxWith(comparator: Comparator<in UShort>): UShort {\n    if (isEmpty()) throw
NoSuchElementException()\n    var max = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if
(comparator.compare(max, e) < 0) max = e\n    }\n    return max\n}\n\n/**\n * Returns the first element having the
largest value according to the provided [comparator] or `null` if there are no elements.\n
*\n@SinceKotlin(\`1.4\`)\n@ExperimentalUnsignedTypes\npublic fun UIntArray.maxWithOrNull(comparator:
Comparator<in UInt>): UInt? {\n    if (isEmpty()) return null\n    var max = this[0]\n    for (i in 1..lastIndex) {\n
val e = this[i]\n        if (comparator.compare(max, e) < 0) max = e\n    }\n    return max\n}\n\n/**\n * Returns the
first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n
*\n@SinceKotlin(\`1.4\`)\n@ExperimentalUnsignedTypes\npublic
fun ULongArray.maxWithOrNull(comparator: Comparator<in ULong>): ULong? {\n    if (isEmpty()) return null\n
var max = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (comparator.compare(max, e) < 0) max
= e\n    }\n    return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided
[comparator] or `null` if there are no elements.\n
*\n@SinceKotlin(\`1.4\`)\n@ExperimentalUnsignedTypes\npublic fun UByteArray.maxWithOrNull(comparator:
Comparator<in UByte>): UByte? {\n    if (isEmpty()) return null\n    var max = this[0]\n    for (i in 1..lastIndex) {\n
val e = this[i]\n        if (comparator.compare(max, e) < 0) max = e\n    }\n    return max\n}\n\n/**\n * Returns the
first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n
*\n@SinceKotlin(\`1.4\`)\n@ExperimentalUnsignedTypes\npublic fun UShortArray.maxWithOrNull(comparator:
Comparator<in UShort>):
UShort? {\n    if (isEmpty()) return null\n    var max = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n
if (comparator.compare(max, e) < 0) max = e\n    }\n    return max\n}\n\n/**\n * Returns the smallest element.\n * \n *
@throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin(\`1.7\`)\n@kotlin.jvm.JvmName(\`minOrThrow-
U()\n@ExperimentalUnsignedTypes\n@Suppress(\`CONFLICTING_OVERLOADS\`)\npublic fun
UIntArray.min(): UInt {\n    if (isEmpty()) throw NoSuchElementException()\n    var min = this[0]\n    for (i in
1..lastIndex) {\n        val e = this[i]\n        if (min > e) min = e\n    }\n    return min\n}\n\n/**\n * Returns the
smallest element.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin(\`1.7\`)\n@kotlin.jvm.JvmName(\`minOrThrow-

```

```

U)\n@ExperimentalUnsignedTypes\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun
ULongArray.min(): ULong {\n    if (isEmpty()) throw NoSuchElementException()\n    var
    min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (min > e) min = e\n    }\n    return
min\n}\n\n/**\n * Returns the smallest element.\n * \n * @throws NoSuchElementException if the array is empty.\n *
*\n *\n *\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minOrThrow-
U)\n@ExperimentalUnsignedTypes\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun
UByteArray.min(): UByte {\n    if (isEmpty()) throw NoSuchElementException()\n    var min = this[0]\n    for (i in
1..lastIndex) {\n        val e = this[i]\n        if (min > e) min = e\n    }\n    return min\n}\n\n/**\n * Returns the smallest
element.\n * \n * @throws NoSuchElementException if the array is empty.\n *
*\n *\n *\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minOrThrow-
U)\n@ExperimentalUnsignedTypes\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun
UShortArray.min(): UShort {\n    if (isEmpty()) throw NoSuchElementException()\n    var min = this[0]\n    for (i in
1..lastIndex) {\n        val e = this[i]\n
        if (min > e) min = e\n    }\n    return min\n}\n\n/**\n * Returns the first element yielding the smallest value of
the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample
samples.collections.Collections.Aggregates.minBy\n
*\n *\n *\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minByOrThrow-
U)\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\n@Suppress(\"CONFLICTING_OVERLOADS
\")\npublic inline fun <R : Comparable<R>> UIntArray.minBy(selector: (UInt) -> R): UInt {\n    if (isEmpty())
throw NoSuchElementException()\n    var minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex ==
0) return minElem\n    var minValue = selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val
v = selector(e)\n        if (minValue > v) {\n            minElem = e\n            minValue = v\n        }\n    }\n    return
minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function.\n * \n *
@throws NoSuchElementException if the array is empty.\n * \n * @sample
samples.collections.Collections.Aggregates.minBy\n
*\n *\n *\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minByOrThrow-
U)\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\n@Suppress(\"CONFLICTING_OVERLOADS
\")\npublic inline fun <R : Comparable<R>> ULongArray.minBy(selector: (ULong) -> R): ULong {\n    if
(isEmpty()) throw NoSuchElementException()\n    var minElem = this[0]\n    val lastIndex = this.lastIndex\n    if
(lastIndex == 0) return minElem\n    var minValue = selector(minElem)\n    for (i in 1..lastIndex) {\n        val e =
this[i]\n        val v = selector(e)\n        if (minValue > v) {\n            minElem = e\n            minValue = v\n        }\n
    }\n    return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function.\n * \n *
@throws NoSuchElementException if the array is empty.\n * \n * @sample
samples.collections.Collections.Aggregates.minBy\n
*\n *\n *\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minByOrThrow-
U)\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\n@Suppress(\"CONFLICTING_OVERLOADS
\")\npublic inline fun <R : Comparable<R>> UByteArray.minBy(selector: (UByte) -> R): UByte {\n    if
(isEmpty()) throw NoSuchElementException()\n    var minElem = this[0]\n    val lastIndex = this.lastIndex\n    if
(lastIndex == 0) return minElem\n    var minValue = selector(minElem)\n    for (i in 1..lastIndex) {\n        val e =
this[i]\n        val v = selector(e)\n        if (minValue > v) {\n            minElem = e\n            minValue = v\n        }\n
    }\n    return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function.\n * \n *
@throws NoSuchElementException if the array is empty.\n * \n * @sample
samples.collections.Collections.Aggregates.minBy\n
*\n *\n *\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minByOrThrow-
U)\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\n@Suppress(\"CONFLICTING_OVERLOADS
\")\npublic
inline fun <R : Comparable<R>> UShortArray.minBy(selector: (UShort) -> R): UShort {\n    if (isEmpty()) throw
NoSuchElementException()\n    var minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0)

```

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return minElem\n    var minValue = selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v =
selector(e)\n        if (minValue > v) {\n            minElem = e\n            minValue = v\n        }\n    }\n    return
minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there
are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n
*\n*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UIntArray.minByOrNull(selector: (UInt) -> R): UInt? {\n    if (isEmpty()) return null\n    var
minElem = this[0]\n    val lastIndex = this.lastIndex\n    if
(lastIndex == 0) return minElem\n    var minValue = selector(minElem)\n    for (i in 1..lastIndex) {\n        val e =
this[i]\n        val v = selector(e)\n        if (minValue > v) {\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or
`null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n
*\n*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> ULongArray.minByOrNull(selector: (ULong) -> R): ULong? {\n    if (isEmpty()) return null\n    var
minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var minValue =
selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (minValue > v)
{\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or
`null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n
*\n*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UByteArray.minByOrNull(selector: (UByte) -> R): UByte? {\n    if (isEmpty()) return null\n    var
minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var minValue =
selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (minValue > v)
{\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the first
element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.minByOrNull\n
*\n*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun <R : Comparable<R>> UShortArray.minByOrNull(selector: (UShort) -> R): UShort? {\n    if (isEmpty())
return null\n    var minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var
minValue = selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if
(minValue > v) {\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the
array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UIntArray.minOf(selector: (UInt) -> Double): Double {\n    if (isEmpty()) throw
NoSuchElementException()\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =
selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest
value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of
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*\n*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.minOf(selector: (ULong) -> Double): Double {\n    if (isEmpty()) throw NoSuchElementException()\n    var
minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val
v = selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the
smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If
any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws

```

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NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.minOf(selector: (UByte) -> Double): Double {\n    if (isEmpty()) throw NoSuchElementException()\n
    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        minValue =
minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.minOf(selector: (UShort) -> Double): Double {\n    if (isEmpty()) throw NoSuchElementException()\n
    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        minValue =
minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector]
function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UIntArray.minOf(selector: (UInt) -> Float): Float {\n    if (isEmpty()) throw
NoSuchElementException()\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =
selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest
value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of
values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws
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ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.minOf(selector: (ULong) -> Float): Float {\n    if (isEmpty()) throw NoSuchElementException()\n
    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        minValue =
minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector]
function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
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minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        minValue =
minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest
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ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.minOf(selector: (UShort) -> Float): Float {\n    if (isEmpty()) throw NoSuchElementException()\n
    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        minValue =
minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the
array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic

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inline fun <R : Comparable<R>> UIntArray.minOf(selector: (UInt) -> R): R {
    if (isEmpty()) throw NoSuchElementException()
    var minValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        if (minValue > v) {
            minValue = v
        }
    }
    return minValue
}
Returns the smallest value among all values produced by [selector] function
* applied to each element in the array.
* @throws NoSuchElementException if the array is empty.

*\/n@SinceKotlin("1.4")n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)n@OverloadResolution
ByLambdaReturnTypen@ExperimentalUnsignedTypesn@kotlin.internal.InlineOnlynpublic inline fun <R :
Comparable<R>> ULongArray.minOf(selector: (ULong) -> R): R {
    if (isEmpty()) throw
NoSuchElementException()
    var minValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        if (minValue > v) {
            minValue = v
        }
    }
    return minValue
}
Returns the smallest value among all values produced by [selector] function
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NoSuchElementException()
    var minValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v =
selector(this[i])
        if (minValue > v) {
            minValue = v
        }
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    return minValue
}
Returns the smallest value among all values produced by [selector] function
* applied to each element
in the array.
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Comparable<R>> UShortArray.minOf(selector: (UShort) -> R): R {
    if (isEmpty()) throw
NoSuchElementException()
    var minValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v =
selector(this[i])
        if (minValue > v) {
            minValue = v
        }
    }
    return minValue
}
Returns the smallest value among all values produced by [selector] function
* applied to each element in the array
or `null` if there are no elements.
* @throws NoSuchElementException if the array is empty.
* If any of values produced by [selector] function is `NaN`, the returned
result is `NaN`.

*\/n@SinceKotlin("1.4")n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)n@OverloadResolution
ByLambdaReturnTypen@ExperimentalUnsignedTypesn@kotlin.internal.InlineOnlynpublic
inline fun UIntArray.minOfOrNull(selector: (UInt) -> Double): Double? {
    if (isEmpty()) return null
    var
minValue = selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        minValue =
minOf(minValue, v)
    }
    return minValue
}
Returns the smallest value among all values produced
by [selector] function
* applied to each element in the array or `null` if there are no elements.
* @throws NoSuchElementException if the array is empty.
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values produced by [selector] function is `NaN`, the returned result is `NaN`.

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ByLambdaReturnTypen@ExperimentalUnsignedTypesn@kotlin.internal.InlineOnlynpublic inline fun
ULongArray.minOfOrNull(selector: (ULong) -> Double): Double? {
    if (isEmpty()) return null
    var minValue
= selector(this[0])
    for (i in 1..lastIndex) {
        val v = selector(this[i])
        minValue = minOf(minValue, v)
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produced by [selector] function is `NaN`, the returned result is `NaN`.

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ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.minOfOrNull(selector: (UShort) -> Double): Double? {\n if (isEmpty()) return null\n var minValue
= selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n minValue = minOf(minValue, v)\n
}\n return minValue\n}\n\n**\n * Returns the smallest value among all values produced by [selector] function\n
* applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by
[selector] function is `NaN`, the returned result is `NaN`.\n

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inline fun UIntArray.minOfOrNull(selector: (UInt) -> Float): Float? {\n if (isEmpty()) return null\n var
minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n minValue =
minOf(minValue, v)\n }\n return minValue\n}\n\n**\n * Returns the smallest value among all values produced
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values produced by [selector] function is `NaN`, the returned result is `NaN`.\n

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ULongArray.minOfOrNull(selector: (ULong) -> Float): Float? {\n if (isEmpty()) return null\n var minValue =
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}\n return
minValue\n}\n\n**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function
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selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n minValue = minOf(minValue, v)\n
}\n return minValue\n}\n\n**\n * Returns the smallest value among all values produced by [selector] function\n *
applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector]
function is `NaN`, the returned result
is `NaN`.\n

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selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n minValue = minOf(minValue, v)\n
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minValue = selector(this[0])\n for
(i in 1..lastIndex) {\n val v = selector(this[i])\n if (minValue > v) {\n minValue = v\n }\n }\n
return minValue\n}\n\n**\n * Returns the smallest value among all values produced by [selector] function\n *
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Comparable<R>> ULongArray.minOfOrNull(selector: (ULong) -> R): R? {\n if (isEmpty()) return null\n var
minValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if (minValue > v) {\n

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    minValue = v\n    }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values
produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
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(minValue > v) {\n            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value
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minValue
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minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value according to the provided
[comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n *
@throws NoSuchElementException if the array is empty.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UIntArray.minOfWith(comparator: Comparator<in R>, selector: (UInt) -> R): R {\n    if (isEmpty()) throw
NoSuchElementException()\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =
selector(this[i])\n        if (comparator.compare(minValue, v) > 0) {\n            minValue = v\n        }\n    }\n    return
minValue\n}\n\n/**\n * Returns the
smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied
to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n
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selector(this[i])\n        if (comparator.compare(minValue, v) > 0) {\n            minValue = v\n        }\n    }\n    return
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ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
<R> UShortArray.minOfWith(comparator: Comparator<in R>, selector: (UShort) -> R): R {\n    if (isEmpty())
throw NoSuchElementException()\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =
selector(this[i])\n        if (comparator.compare(minValue, v) > 0) {\n            minValue = v\n        }\n    }\n    return
minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values
produced by [selector] function applied to each element in the array or `null` if there are no elements.\n

```

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*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UIntArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (UInt) -> R): R? {\n  if (isEmpty()) return
null\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if (comparator.compare(minValue, v) > 0) {\n      minValue = v\n    }\n  }\n  return
minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values
produced by [selector] function applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
ULongArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (ULong) -> R): R? {\n  if (isEmpty())
return null\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if
(comparator.compare(minValue, v) > 0) {\n      minValue = v\n    }\n  }\n  return minValue\n}\n\n/**\n *
Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector]
function
applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UByteArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (UByte) -> R): R? {\n  if (isEmpty())
return null\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v = selector(this[i])\n    if
(comparator.compare(minValue, v) > 0) {\n      minValue = v\n    }\n  }\n  return minValue\n}\n\n/**\n *
Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun <R> UShortArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (UShort) -> R): R? {\n
if (isEmpty()) return null\n  var minValue = selector(this[0])\n  for (i in 1..lastIndex) {\n    val v =
selector(this[i])\n    if (comparator.compare(minValue, v) > 0) {\n      minValue = v\n    }\n  }\n  return
minValue\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.minOrNull(): UInt? {\n  if
(isEmpty()) return null\n  var min = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if (min > e) min =
e\n  }\n  return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.minOrNull(): ULong? {\n  if
(isEmpty()) return null\n  var min = this[0]\n  for (i in 1..lastIndex) {\n    val
e = this[i]\n    if (min > e) min = e\n  }\n  return min\n}\n\n/**\n * Returns the smallest element or `null` if
there are no elements.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun
UByteArray.minOrNull(): UByte? {\n  if (isEmpty()) return null\n  var min = this[0]\n  for (i in 1..lastIndex) {\n
val e = this[i]\n    if (min > e) min = e\n  }\n  return min\n}\n\n/**\n * Returns the smallest element or `null`
if there are no elements.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun
UShortArray.minOrNull(): UShort? {\n  if (isEmpty()) return null\n  var min = this[0]\n  for (i in 1..lastIndex)
{\n    val e = this[i]\n    if (min > e) min = e\n  }\n  return min\n}\n\n/**\n * Returns the first element having
the smallest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array
is empty.\n
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minWithOrThrow-
U")\n@ExperimentalUnsignedTypes\n@Suppress("CONFLICTING_OVERLOADS")\npublic
fun UIntArray.minWith(comparator: Comparator<in UInt>): UInt {\n  if (isEmpty()) throw
NoSuchElementException()\n  var min = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if
(comparator.compare(min, e) > 0) min = e\n  }\n  return min\n}\n\n/**\n * Returns the first element having the
smallest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is
empty.\n
*\n@SinceKotlin("1.7")\n@kotlin.jvm.JvmName("minWithOrThrow-

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U()\n@ExperimentalUnsignedTypes\n@Suppress(\`CONFLICTING_OVERLOADS\`)\npublic fun
ULongArray.minWith(comparator: Comparator<in ULong>): ULong {\n  if (isEmpty()) throw
NoSuchElementException()\n  var min = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if
(comparator.compare(min, e) > 0) min = e\n  }\n  return min\n}\n\n/**\n * Returns the first element having the
smallest value according
to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is empty.\n
*\n*\n@SinceKotlin(\`1.7\`)\n@kotlin.jvm.JvmName(\`minWithOrThrow-
U()\n@ExperimentalUnsignedTypes\n@Suppress(\`CONFLICTING_OVERLOADS\`)\npublic fun
UByteArray.minWith(comparator: Comparator<in UByte>): UByte {\n  if (isEmpty()) throw
NoSuchElementException()\n  var min = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if
(comparator.compare(min, e) > 0) min = e\n  }\n  return min\n}\n\n/**\n * Returns the first element having the
smallest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is
empty.\n * \n*\n@SinceKotlin(\`1.7\`)\n@kotlin.jvm.JvmName(\`minWithOrThrow-
U()\n@ExperimentalUnsignedTypes\n@Suppress(\`CONFLICTING_OVERLOADS\`)\npublic fun
UShortArray.minWith(comparator: Comparator<in UShort>): UShort {\n  if (isEmpty()) throw
NoSuchElementException()\n  var min = this[0]\n  for (i in 1..lastIndex) {\n
    val e = this[i]\n    if (comparator.compare(min, e) > 0) min = e\n  }\n  return min\n}\n\n/**\n * Returns the
first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n
*\n*\n@SinceKotlin(\`1.4\`)\n@ExperimentalUnsignedTypes\npublic fun UIntArray.minWithOrNull(comparator:
Comparator<in UInt>): UInt? {\n  if (isEmpty()) return null\n  var min = this[0]\n  for (i in 1..lastIndex) {\n
    val e = this[i]\n    if (comparator.compare(min, e) > 0) min = e\n  }\n  return min\n}\n\n/**\n * Returns the first
element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n
*\n*\n@SinceKotlin(\`1.4\`)\n@ExperimentalUnsignedTypes\npublic fun ULongArray.minWithOrNull(comparator:
Comparator<in ULong>): ULong? {\n  if (isEmpty()) return null\n  var min = this[0]\n  for (i in 1..lastIndex) {\n
    val e = this[i]\n    if (comparator.compare(min, e) > 0) min
= e\n  }\n  return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided
[comparator] or `null` if there are no elements.\n
*\n*\n@SinceKotlin(\`1.4\`)\n@ExperimentalUnsignedTypes\npublic fun UByteArray.minWithOrNull(comparator:
Comparator<in UByte>): UByte? {\n  if (isEmpty()) return null\n  var min = this[0]\n  for (i in 1..lastIndex) {\n
    val e = this[i]\n    if (comparator.compare(min, e) > 0) min = e\n  }\n  return min\n}\n\n/**\n * Returns the
first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n
*\n*\n@SinceKotlin(\`1.4\`)\n@ExperimentalUnsignedTypes\npublic fun UShortArray.minWithOrNull(comparator:
Comparator<in UShort>): UShort? {\n  if (isEmpty()) return null\n  var min = this[0]\n  for (i in 1..lastIndex) {\n
    val e = this[i]\n    if (comparator.compare(min, e) > 0) min = e\n  }\n  return min\n}\n\n/**\n * Returns
`true` if the array
has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n
*\n*\n@SinceKotlin(\`1.3\`)\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.none(): Boolean {\n  return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n *
*\n@sample samples.collections.Collections.Aggregates.none\n
*\n*\n@SinceKotlin(\`1.3\`)\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.none(): Boolean {\n  return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n *
*\n@sample samples.collections.Collections.Aggregates.none\n
*\n*\n@SinceKotlin(\`1.3\`)\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.none(): Boolean {\n  return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n *
*\n@sample samples.collections.Collections.Aggregates.none\n
*\n*\n@SinceKotlin(\`1.3\`)\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UShortArray.none(): Boolean {\n  return isEmpty()\n}\n\n/**\n * Returns `true` if no elements match
the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n

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*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.none(predicate: (UInt) -> Boolean): Boolean {\n  for (element in this) if (predicate(element)) return
false\n  return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.none(predicate: (ULong) -> Boolean): Boolean {\n  for (element in this) if (predicate(element)) return
false\n  return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.none(predicate: (UByte) -> Boolean): Boolean {\n  for (element in this) if (predicate(element)) return
false\n  return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.none(predicate: (UShort) -> Boolean): Boolean {\n  for (element in this) if (predicate(element))
return false\n  return true\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself
afterwards.\n * \n *\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UIntArray.onEach(action: (UInt) -> Unit): UIntArray {\n  return apply { for (element in this)
action(element) }\n}\n\n/**\n * Performs the given
[action] on each element and returns the array itself afterwards.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.onEach(action: (ULong) -> Unit): ULongArray {\n  return apply { for (element in this)
action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself
afterwards.\n * \n *\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UByteArray.onEach(action: (UByte) -> Unit): UByteArray {\n  return apply { for (element in this)
action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself
afterwards.\n * \n *\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UShortArray.onEach(action: (UShort) -> Unit): UShortArray {\n  return apply { for (element in this)
action(element) }\n}\n\n/**\n * Performs the given [action] on each element, providing
sequential index with the element,\n * and returns the array itself afterwards.\n * \n * @param [action] function that
takes the index of an element and the element itself\n * and performs the action on the element.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.onEachIndexed(action: (index: Int, UInt) -> Unit): UIntArray {\n  return apply {
forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index
with the element,\n * and returns the array itself afterwards.\n * \n * @param [action] function that takes the index of an
element and the element itself\n * and performs the action on the element.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.onEachIndexed(action: (index: Int, ULong) -> Unit): ULongArray {\n  return apply {
forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action] on each element, providing
sequential index with the element,\n * and returns the array itself afterwards.\n * \n * @param [action] function that
takes the index of an element and the element itself\n * and performs the action on the element.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.onEachIndexed(action: (index: Int, UByte) -> Unit): UByteArray {\n  return apply {
forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index
with the element,\n * and returns the array itself afterwards.\n * \n * @param [action] function that takes the index of an
element and the element itself\n * and performs the action on the element.\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.onEachIndexed(action: (index: Int, UShort) -> Unit): UShortArray {\n  return apply {
forEachIndexed(action) }\n}\n\n/**\n * Accumulates value starting with the

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first element and applying [operation] from left to right\n \* to current accumulator value and each element.\n \* \n \* Throws an exception if this array is empty. If the array can be empty in an expected way,\n \* please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n \* \n \* @param [operation] function that takes current accumulator value and an element,\n \* and calculates the next accumulator value.\n \* \n \* @sample

```
samples.collections.Collections.Aggregates.reduce\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nUIntArray.reduce(operation: (acc: UInt, UInt) -> UInt): UInt {\n    if (isEmpty())\n        throw\n        UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = this[0]\n    for (index in\n        1..lastIndex) {\n            accumulator = operation(accumulator, this[index])\n        }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying
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[operation] from left to right\n \* to current accumulator value and each element.\n \* \n \* Throws an exception if this array is empty. If the array can be empty in an expected way,\n \* please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n \* \n \* @param [operation] function that takes current accumulator value and an element,\n \* and calculates the next accumulator value.\n \* \n \* @sample

```
samples.collections.Collections.Aggregates.reduce\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nULongArray.reduce(operation: (acc: ULong, ULong) -> ULong): ULong {\n    if (isEmpty())\n        throw\n        UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = this[0]\n    for (index in\n        1..lastIndex) {\n            accumulator = operation(accumulator, this[index])\n        }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to
```

right\n \* to current accumulator value and each element.\n \* \n \* Throws an exception if this array is empty. If the array can be empty in an expected way,\n \* please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n \* \n \* @param [operation] function that takes current accumulator value and an element,\n \* and calculates the next accumulator value.\n \* \n \* @sample

```
samples.collections.Collections.Aggregates.reduce\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nUByteArray.reduce(operation: (acc: UByte, UByte) -> UByte): UByte {\n    if (isEmpty())\n        throw\n        UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = this[0]\n    for (index in\n        1..lastIndex) {\n            accumulator = operation(accumulator, this[index])\n        }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator
```

value and each element.\n \* \n \* Throws an exception if this array is empty. If the array can be empty in an expected way,\n \* please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n \* \n \* @param [operation] function that takes current accumulator value and an element,\n \* and calculates the next accumulator value.\n \* \n \* @sample

```
samples.collections.Collections.Aggregates.reduce\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nUShortArray.reduce(operation: (acc: UShort, UShort) -> UShort): UShort {\n    if (isEmpty())\n        throw\n        UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = this[0]\n    for (index in\n        1..lastIndex) {\n            accumulator = operation(accumulator, this[index])\n        }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each
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element with its index in the original array.\n \* \n \* Throws an exception if this array is empty. If the array can be empty in an expected way,\n \* please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n \* \n \* @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n \* and calculates the next accumulator value.\n \* \n \* @sample

```
samples.collections.Collections.Aggregates.reduce\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nUIntArray.reduceIndexed(operation: (index: Int, acc: UInt, UInt) -> UInt): UInt {\n    if (isEmpty())\n        throw\n        UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = this[0]\n    for (index in
```

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1..lastIndex) {\n    accumulator = operation(index, accumulator, this[index])\n } \n return
accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying
[operation] from left to right\n * to current accumulator value and each element with its index in the original
array.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please
use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation]
function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the
next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.reduceIndexed(operation: (index: Int, acc: ULong, ULong) -> ULong): ULong {\n    if (isEmpty())\n    throw UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = this[0]\n    for
(index in 1..lastIndex) {\n        accumulator = operation(index, accumulator, this[index])\n    }\n    return
accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current
accumulator value and each element with its index in the original array.\n * \n * Throws an exception if this array is
empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null`
when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current
accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduce\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.reduceIndexed(operation: (index: Int, acc: UByte, UByte) -> UByte): UByte {\n    if (isEmpty())\n    throw
UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = this[0]\n    for
(index in 1..lastIndex) {\n        accumulator
= operation(index, accumulator, this[index])\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting
with the first element and applying [operation] from left to right\n * to current accumulator value and each element
with its index in the original array.\n * \n * Throws an exception if this array is empty. If the array can be empty in
an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n *
@param [operation] function that takes the index of an element, current accumulator value and the element itself,\n *
and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.reduceIndexed(operation: (index: Int, acc: UShort, UShort) -> UShort): UShort {\n    if (isEmpty())\n    throw
UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = this[0]\n    for (index in
1..lastIndex) {\n        accumulator = operation(index, accumulator,
this[index])\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and
applying [operation] from left to right\n * to current accumulator value and each element with its index in the
original array.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes the
index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n *
\n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.reduceIndexedOrNull(operation: (index: Int, acc: UInt, UInt) -> UInt): UInt? {\n    if (isEmpty())\n    return
null\n    var accumulator = this[0]\n    for (index in 1..lastIndex) {\n        accumulator = operation(index,
accumulator,
this[index])\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and
applying [operation] from left to right\n * to current accumulator value and each element with its index in the
original array.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes the
index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n *
\n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.reduceIndexedOrNull(operation: (index: Int, acc: ULong, ULong) -> ULong): ULong? {\n    if

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(isEmpty())\n    return null\n    var accumulator = this[0]\n    for (index in 1..lastIndex) {\n        accumulator =
operation(index, accumulator, this[index])\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting
with the first element
and applying [operation] from left to right\n * to current accumulator value and each element with its index in the
original array.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes the index
of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n
* @sample samples.collections.Collections.Aggregates.reduceOrNull\n
*/\n\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.reduceIndexedOrNull(operation: (index: Int, acc: UByte, UByte) -> UByte): UByte? {\n    if
(isEmpty())\n        return null\n        var accumulator = this[0]\n        for (index in 1..lastIndex) {\n            accumulator =
operation(index, accumulator, this[index])\n        }\n        return accumulator\n}\n\n/**\n * Accumulates value starting
with the first element and applying [operation] from left to right\n * to current accumulator value and each element
with its index in
the original array.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes the
index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator
value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n
*/\n\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.reduceIndexedOrNull(operation: (index: Int, acc: UShort, UShort) -> UShort): UShort? {\n    if
(isEmpty())\n        return null\n        var accumulator = this[0]\n        for (index in 1..lastIndex) {\n            accumulator =
operation(index, accumulator, this[index])\n        }\n        return accumulator\n}\n\n/**\n * Accumulates value starting
with the first element and applying [operation] from left to right\n * to current accumulator value and each
element.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes current
accumulator value and
an element,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceOrNull\n
*/\n\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n
@kotlin.internal.InlineOnly\npublic inline fun UIntArray.reduceOrNull(operation: (acc: UInt, UInt) -> UInt): UInt?
{\n    if (isEmpty())\n        return null\n        var accumulator = this[0]\n        for (index in 1..lastIndex) {\n            accumulator =
operation(accumulator, this[index])\n        }\n        return accumulator\n}\n\n/**\n * Accumulates value
starting with the first element and applying [operation] from left to right\n * to current accumulator value and each
element.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes current
accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceOrNull\n
*/\n\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n
@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.reduceOrNull(operation: (acc: ULong, ULong) -> ULong): ULong? {\n    if (isEmpty())\n        return null\n        var accumulator = this[0]\n        for (index in 1..lastIndex) {\n            accumulator =
operation(accumulator, this[index])\n        }\n        return accumulator\n}\n\n/**\n * Accumulates value starting
with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n
* Returns `null` if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and
an element,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceOrNull\n
*/\n\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n
@kotlin.internal.InlineOnly\npublic inline fun UByteArray.reduceOrNull(operation: (acc:
UByte, UByte) -> UByte): UByte? {\n    if (isEmpty())\n        return null\n        var accumulator = this[0]\n        for
(index in 1..lastIndex) {\n            accumulator = operation(accumulator, this[index])\n        }\n        return
accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to
right\n * to current accumulator value and each element.\n * \n * Returns `null` if the array is empty.\n * \n
*

```

@param [operation] function that takes current accumulator value and an element, \n \* and calculates the next accumulator value. \n \* \n \* @sample samples.collections.Collections.Aggregates.reduceOrNull \n

```

*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.reduceOrNull(operation: (acc: UShort, UShort) -> UShort): UShort? {\n    if (isEmpty())\n        return null\n    var accumulator = this[0]\n    for (index in 1..lastIndex)\n    {\n        accumulator\n        = operation(accumulator, this[index])\n    }\n    return accumulator\n}\n\n/>\n * Accumulates value starting with the last element and applying [operation] from right to left \n * to each element and current accumulator value. \n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way, \n * please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty. \n * \n * @param [operation] function that takes an element and current accumulator value, \n * and calculates the next accumulator value. \n * \n * @sample samples.collections.Collections.Aggregates.reduceRight \n

```

```

*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.reduceRight(operation: (UInt, acc: UInt) -> UInt): UInt {\n    var index = lastIndex\n    if (index < 0)\n        throw UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator\n        = operation(get(index--), accumulator)\n    }\n    return accumulator\n}\n\n/>\n * Accumulates value starting with the last element and applying [operation] from right to left \n * to each element and current accumulator value. \n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way, \n * please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty. \n * \n * @param [operation] function that takes an element and current accumulator value, \n * and calculates the next accumulator value. \n * \n * @sample samples.collections.Collections.Aggregates.reduceRight \n

```

```

*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.reduceRight(operation: (ULong, acc: ULong) -> ULong): ULong {\n    var index = lastIndex\n    if (index < 0)\n        throw UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator\n        = operation(get(index--), accumulator)\n    }\n    return accumulator\n}\n\n/>\n * Accumulates value starting with the last element and applying [operation] from right to left \n * to each element and current accumulator value. \n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way, \n * please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty. \n * \n * @param [operation] function that takes an element and current accumulator value, \n * and calculates the next accumulator value. \n * \n * @sample samples.collections.Collections.Aggregates.reduceRight \n

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*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.reduceRight(operation: (UByte, acc: UByte) -> UByte): UByte {\n    var index = lastIndex\n    if (index < 0)\n        throw UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n    }\n    return accumulator\n}\n\n/>\n * Accumulates value starting with the last element and applying [operation] from right to left \n * to each element and current accumulator value. \n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way, \n * please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty. \n * \n * @param [operation] function that takes an element and current accumulator value, \n * and calculates the next accumulator value. \n * \n * @sample samples.collections.Collections.Aggregates.reduceRight \n

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*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.reduceRight(operation: (UShort, acc: UShort) -> UShort): UShort {\n    var index = lastIndex\n    if (index < 0)\n        throw UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = get(index--)\n    while (index >= 0)\n    {\n        accumulator = operation(get(index--), accumulator)\n    }\n    return accumulator\n}\n\n/>\n * Accumulates value starting with the last element and applying [operation] from right to left \n * to each element with

```

its index in the original array and current accumulator value.\n \* \n \* Throws an exception if this array is empty. If the array can be empty in an expected way,\n \* please use [reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.\n \* \n \* @param [operation] function that takes the index of an element, the element itself and current accumulator value,\n \* and calculates the next accumulator value.\n \* \n \* @sample samples.collections.Collections.Aggregates.reduceRight

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*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.reduceRightIndexed(operation: (index: Int, UInt, acc: UInt) -> UInt): UInt {\n    var index = lastIndex\n    if (index < 0) throw UnsupportedOperationException("Empty
array can't be reduced.")\n    var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator =
operation(index, get(index), accumulator)\n        --index\n    }\n    return accumulator\n}\n\n/**\n * Accumulates
value starting with the last element and applying [operation] from right to left\n * to each element with its index in
the original array and current accumulator value.\n * \n * Throws an exception if this array is empty. If the array can
be empty in an expected way,\n * please use [reduceRightIndexedOrNull] instead. It returns `null` when its receiver
is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself and current
accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceRight
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.reduceRightIndexed(operation: (index: Int,
ULong, acc: ULong) -> ULong): ULong {\n    var index = lastIndex\n    if (index < 0) throw
UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = get(index--)\n    while
(index >= 0) {\n        accumulator = operation(index, get(index), accumulator)\n        --index\n    }\n    return
accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to
left\n * to each element with its index in the original array and current accumulator value.\n * \n * Throws an
exception if this array is empty. If the array can be empty in an expected way,\n * please use
[reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation]
function that takes the index of an element, the element itself and current accumulator value,\n * and calculates the
next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UByteArray.reduceRightIndexed(operation: (index: Int, UByte, acc: UByte) -> UByte): UByte {\n    var
index = lastIndex\n    if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n    var
accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(index, get(index),
accumulator)\n        --index\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the last
element and applying [operation] from right to left\n * to each element with its index in the original array and
current accumulator value.\n * \n * Throws an exception if this array is empty. If the array can be empty in an
expected way,\n * please use [reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n
* @param [operation] function that takes the index of an element, the element itself and current accumulator
value,\n * and calculates the next accumulator
value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.reduceRightIndexed(operation: (index: Int, UShort, acc: UShort) -> UShort): UShort {\n    var index =
lastIndex\n    if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n    var
accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(index, get(index),
accumulator)\n        --index\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the last
element and applying [operation] from right to left\n * to each element with its index in the original array and
current accumulator value.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that
takes the index of an element, the element itself and current accumulator value,\n * and calculates the next
accumulator value.\n * \n

```

```

* @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.reduceRightIndexedOrNull(operation: (index: Int, UInt, acc: UInt) -> UInt): UInt? {\n  var index =
lastIndex\n  if (index < 0) return null\n  var accumulator = get(index--)\n  while (index >= 0) {\n
accumulator = operation(index, get(index), accumulator)\n    --index\n  }\n  return accumulator\n}\n\n/**\n *
Accumulates value starting with the last element and applying [operation] from right to left\n * to each element with
its index in the original array and current accumulator value.\n * \n * Returns `null` if the array is empty.\n * \n *
@param [operation] function that takes the index of an element, the element itself and current accumulator value,\n
* and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceRightOrNull\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.reduceRightIndexedOrNull(operation: (index: Int, ULong, acc: ULong) -> ULong): ULong?
{\n  var index = lastIndex\n  if (index < 0) return null\n  var accumulator = get(index--)\n  while (index >= 0)
{\n    accumulator = operation(index, get(index), accumulator)\n    --index\n  }\n  return
accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to
left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns `null`
if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself and
current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceRightOrNull\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UByteArray.reduceRightIndexedOrNull(operation: (index: Int, UByte, acc: UByte) -> UByte): UByte?
{\n  var index = lastIndex\n  if (index < 0) return null\n  var accumulator = get(index--)\n  while (index >= 0)
{\n    accumulator = operation(index, get(index), accumulator)\n    --index\n  }\n  return
accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to
left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns `null`
if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself and
current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceRightOrNull\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.reduceRightIndexedOrNull(operation: (index:
Int, UShort, acc: UShort) -> UShort): UShort? {\n  var index = lastIndex\n  if (index < 0) return null\n  var
accumulator = get(index--)\n  while (index >= 0) {\n    accumulator = operation(index, get(index),
accumulator)\n    --index\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with the last
element and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n *
Returns `null` if the array is empty.\n * \n * @param [operation] function that takes an element and current
accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.reduceRightOrNull\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n
@kotlin.internal.InlineOnly\npublic inline fun UIntArray.reduceRightOrNull(operation: (UInt, acc: UInt) -> UInt):
UInt? {\n  var index = lastIndex\n  if (index < 0) return null\n
var accumulator = get(index--)\n  while (index >= 0) {\n    accumulator = operation(get(index--), accumulator)\n
  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation]
from right to left\n * to each element and current accumulator value.\n * \n * Returns `null` if the array is empty.\n
* \n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the next
accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n
@kotlin.internal.InlineOnly\npublic inline fun ULongArray.reduceRightOrNull(operation: (ULong, acc: ULong) ->
ULong): ULong? {\n  var index = lastIndex\n  if (index < 0) return null\n  var accumulator = get(index--)\n

```

```

while (index >= 0) {
    accumulator = operation(get(index--), accumulator)
}
return accumulator
}

```

Accumulates value starting with the last element and applying [operation] from right to left to each element and current accumulator value. Returns `null` if the array is empty. @param [operation] function that takes an element and current accumulator value and calculates the next accumulator value. @sample samples.collections.Collections.Aggregates.reduceRightOrNull

```

@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
@WasExperimental(ExperimentalStdlibApi::class)
@kotlin.internal.InlineOnly
public inline fun UByteArray.reduceRightOrNull(operation: (UByte, acc: UByte) -> UByte): UByte? {
    var index = lastIndex
    if (index < 0) return null
    var accumulator = get(index--)
    while (index >= 0) {
        accumulator = operation(get(index--), accumulator)
    }
    return accumulator
}

```

Accumulates value starting with the last element and applying [operation] from right to left and current accumulator value. Returns `null` if the array is empty. @param [operation] function that takes an element and current accumulator value and calculates the next accumulator value. @sample samples.collections.Collections.Aggregates.reduceRightOrNull

```

@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
@WasExperimental(ExperimentalStdlibApi::class)
@kotlin.internal.InlineOnly
public inline fun UShortArray.reduceRightOrNull(operation: (UShort, acc: UShort) -> UShort): UShort? {
    var index = lastIndex
    if (index < 0) return null
    var accumulator = get(index--)
    while (index >= 0) {
        accumulator = operation(get(index--), accumulator)
    }
    return accumulator
}

```

Returns a list containing successive accumulation values generated by applying [operation] from left to right to each element and current accumulator value that starts with [initial] value. Note that `acc` value passed to [operation] function should not be mutated; otherwise it would affect the previous value in resulting list. @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value. @sample samples.collections.Collections.Aggregates.runningFold

```

@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun <R> UIntArray.runningFold(initial: R, operation: (acc: R, UInt) -> R): List<R> {
    if (isEmpty()) return listOf(initial)
    val result = ArrayList<R>(size + 1).apply { add(initial) }
    var accumulator = initial
    for (element in this) {
        accumulator = operation(accumulator, element)
        result.add(accumulator)
    }
    return result
}

```

Returns a list containing successive accumulation values generated by applying [operation] from left to right to each element and current accumulator value that starts with [initial] value. Note that `acc` value passed to [operation] function should not be mutated; otherwise it would affect the previous value in resulting list. @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value. @sample samples.collections.Collections.Aggregates.runningFold

```

@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun <R> ULongArray.runningFold(initial: R, operation: (acc: R, ULong) -> R): List<R> {
    if (isEmpty()) return listOf(initial)
    val result = ArrayList<R>(size + 1).apply { add(initial) }
    var accumulator = initial
    for (element in this) {
        accumulator = operation(accumulator, element)
        result.add(accumulator)
    }
    return result
}

```

Returns a list containing successive accumulation values generated by applying [operation] from left to right to each element and current accumulator value that starts with [initial] value. Note that `acc` value passed to [operation] function should not be mutated; otherwise it would affect the previous value in resulting list. @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value. @sample samples.collections.Collections.Aggregates.runningFold

```

@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun <R> UByteArray.runningFold(initial: R, operation: (acc: R, UByte) -> R): List<R> {
    if (isEmpty()) return listOf(initial)
    val result = ArrayList<R>(size + 1).apply { add(initial) }
    var accumulator = initial
    for (element in this) {
        accumulator = operation(accumulator, element)
        result.add(accumulator)
    }
    return result
}

```

```

return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying
[operation] from left to right\n * to each element and current
accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should
not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation]
function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n *
@sample samples.collections.Collections.Aggregates.runningFold\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UShortArray.runningFold(initial: R, operation: (acc: R, UShort) -> R): List<R> {\n if (isEmpty()) return
listOf(initial)\n val result = ArrayList<R>(size + 1).apply { add(initial) }\n var accumulator = initial\n for
(element in this) {\n accumulator = operation(accumulator, element)\n result.add(accumulator)\n }\n
return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying
[operation] from left to right\n
* to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n
* Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the
previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current
accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.runningFold\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UIntArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, UInt) -> R): List<R> {\n if (isEmpty())
return listOf(initial)\n val result = ArrayList<R>(size + 1).apply { add(initial) }\n var accumulator = initial\n
for (index in indices) {\n accumulator = operation(index, accumulator, this[index])\n
result.add(accumulator)\n }\n
return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying
[operation] from left to right\n * to each element, its index in the original array and current accumulator value that
starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n *
otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the
index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator
value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
ULongArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, ULong) -> R): List<R> {\n if
(isEmpty()) return listOf(initial)\n val result = ArrayList<R>(size + 1).apply { add(initial) }\n var accumulator =
initial\n for
(index in indices) {\n accumulator = operation(index, accumulator, this[index])\n result.add(accumulator)\n
}\n return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying
[operation] from left to right\n * to each element, its index in the original array and current accumulator value that
starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n *
otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the
index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator
value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UByteArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, UByte) -> R): List<R> {\n if
(isEmpty())
return listOf(initial)\n val result = ArrayList<R>(size + 1).apply { add(initial) }\n var accumulator = initial\n
for (index in indices) {\n accumulator = operation(index, accumulator, this[index])\n
result.add(accumulator)\n }\n return result\n}\n\n/**\n * Returns a list containing successive accumulation
values generated by applying [operation] from left to right\n * to each element, its index in the original array and
current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation]
function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation]

```

```

function that takes the index of an element, current accumulator value
and the element itself, and calculates the next accumulator value.
@sample samples.collections.Collections.Aggregates.runningFold
*/
@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun <R> UShortArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, UShort) -> R): List<R> {
    if (isEmpty()) return listOf(initial)
    val result = ArrayList<R>(size + 1).apply { add(initial) }
    var accumulator = initial
    for (index in indices) {
        accumulator = operation(index, accumulator, this[index])
        result.add(accumulator)
    }
    return result
}
*/
Returns a list containing successive accumulation values generated by applying [operation] from left to right
to each element and current accumulator value that starts with the first element of this array.
Note that `acc` value passed to [operation] function should not be mutated;
otherwise it would affect the previous value in resulting list.
@param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.
@sample samples.collections.Collections.Aggregates.runningReduce
*/
@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun UIntArray.runningReduce(operation: (acc: UInt, UInt) -> UInt): List<UInt> {
    if (isEmpty()) return emptyList()
    var accumulator = this[0]
    val result = ArrayList<UInt>(size).apply { add(accumulator) }
    for (index in 1 until size) {
        accumulator = operation(accumulator, this[index])
        result.add(accumulator)
    }
    return result
}
*/
Returns a list containing successive accumulation values generated by applying
[operation] from left to right
to each element and current accumulator value that starts with the first element of
this array.
Note that `acc` value passed to [operation] function should not be mutated;
otherwise it would affect the previous value in resulting list.
@param [operation] function that takes current accumulator value
and an element, and calculates the next accumulator value.
@sample samples.collections.Collections.Aggregates.runningReduce
*/
@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun ULongArray.runningReduce(operation: (acc: ULong, ULong) -> ULong): List<ULong> {
    if (isEmpty()) return emptyList()
    var accumulator = this[0]
    val result = ArrayList<ULong>(size).apply { add(accumulator) }
    for (index in 1 until size) {
        accumulator = operation(accumulator, this[index])
        result.add(accumulator)
    }
    return result
}
*/
Returns a list containing successive accumulation values generated by applying
[operation] from left to right
to each element and current accumulator value that starts with the first element of
this array.
Note that `acc` value passed to [operation] function should not be mutated;
otherwise it would affect the previous value in resulting list.
@param [operation] function that takes current accumulator value
and an element,
and calculates the next accumulator value.
@sample samples.collections.Collections.Aggregates.runningReduce
*/
@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun UByteArray.runningReduce(operation: (acc: UByte, UByte) -> UByte): List<UByte> {
    if (isEmpty()) return emptyList()
    var accumulator = this[0]
    val result = ArrayList<UByte>(size).apply { add(accumulator) }
    for (index in 1 until size) {
        accumulator = operation(accumulator, this[index])
        result.add(accumulator)
    }
    return result
}
*/
Returns a list containing successive accumulation values generated by applying
[operation] from left to right
to each element and current accumulator value that starts with the first element of
this array.
Note that `acc` value passed to [operation] function should not be mutated;
otherwise it would affect the previous value in resulting list.
@param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.
@sample samples.collections.Collections.Aggregates.runningReduce
*/
@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun UShortArray.runningReduce(operation: (acc: UShort, UShort) -> UShort): List<UShort> {
    if (isEmpty()) return emptyList()
    var accumulator = this[0]
    val result = ArrayList<UShort>(size).apply { add(accumulator) }
    for (index in 1 until size) {
        accumulator = operation(accumulator, this[index])
        result.add(accumulator)
    }
    return result
}
*/
Returns a list containing successive accumulation values generated by applying

```

[operation] from left to right  
\* to each element, its index in the original array and current accumulator value that starts with the first element of this array.  
\* Note that `acc` value passed to [operation] function should not be mutated;

\* otherwise it would affect the previous value in resulting list.  
\* @param [operation] function that takes the index of an element, current accumulator value and the element itself, and calculates the next accumulator value.  
\* @sample samples.collections.Collections.Aggregates.runningReduce

```
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun  
UIntArray.runningReduceIndexed(operation: (index: Int, acc: UInt, UInt) -> UInt): List<UInt> {\n    if (isEmpty())  
return emptyList()\n    var accumulator = this[0]\n    val result = ArrayList<UInt>(size).apply { add(accumulator)  
}\n    for (index in 1 until size) {\n        accumulator = operation(index, accumulator, this[index])\n    }\n    result.add(accumulator)\n}\nreturn result\n}\n\n/**\n * Returns a list containing successive accumulation  
values generated by applying [operation] from left to right  
* to each element, its index in the original array and  
current
```

accumulator value that starts with the first element of this array.  
\* Note that `acc` value passed to [operation]  
function should not be mutated;  
\* otherwise it would affect the previous value in resulting list.  
\* @param  
[operation] function that takes the index of an element, current accumulator value  
\* and the element itself, and  
calculates the next accumulator value.  
\* @sample

samples.collections.Collections.Aggregates.runningReduce

```
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun  
ULongArray.runningReduceIndexed(operation: (index: Int, acc: ULong, ULong) -> ULong): List<ULong> {\n    if  
(isEmpty()) return emptyList()\n    var accumulator = this[0]\n    val result = ArrayList<ULong>(size).apply {  
add(accumulator) }\n    for (index in 1 until size) {\n        accumulator = operation(index, accumulator, this[index])\n    }\n    result.add(accumulator)\n}\nreturn result\n}\n\n/**\n * Returns a list containing
```

successive accumulation values generated by applying [operation] from left to right  
\* to each element, its index in  
the original array and current accumulator value that starts with the first element of this array.  
\* Note that  
`acc` value passed to [operation] function should not be mutated;  
\* otherwise it would affect the previous value in  
resulting list.  
\* @param [operation] function that takes the index of an element, current accumulator value  
\* and the element itself, and calculates the next accumulator value.  
\* @sample

samples.collections.Collections.Aggregates.runningReduce

```
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun  
UByteArray.runningReduceIndexed(operation: (index: Int, acc: UByte, UByte) -> UByte): List<UByte> {\n    if  
(isEmpty()) return emptyList()\n    var accumulator = this[0]\n    val result = ArrayList<UByte>(size).apply {  
add(accumulator) }\n    for (index in 1 until size) {\n
```

```
        accumulator = operation(index, accumulator, this[index])\n    }\n    result.add(accumulator)\n}\nreturn  
result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from  
left to right  
* to each element, its index in the original array and current accumulator value that starts with the first  
element of this array.  
* Note that `acc` value passed to [operation] function should not be mutated;  
* otherwise it would affect the previous value in resulting list.  
* @param [operation] function that takes the  
index of an element, current accumulator value  
* and the element itself, and calculates the next accumulator  
value.  
* @sample samples.collections.Collections.Aggregates.runningReduce
```

```
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun  
UShortArray.runningReduceIndexed(operation: (index: Int, acc: UShort, UShort) -> UShort): List<UShort> {\n    if  
(isEmpty())
```

```
return emptyList()\n    var accumulator = this[0]\n    val result = ArrayList<UShort>(size).apply { add(accumulator)  
}\n    for (index in 1 until size) {\n        accumulator = operation(index, accumulator, this[index])\n    }\n    result.add(accumulator)\n}\nreturn result\n}\n\n/**\n * Returns a list containing successive accumulation  
values generated by applying [operation] from left to right  
* to each element and current accumulator value that  
starts with [initial] value.  
* Note that `acc` value passed to [operation] function should not be mutated;  
* otherwise it would affect the previous value in resulting list.  
* @param [operation] function that takes the  
index of an element, current accumulator value  
* and the element itself, and calculates the next accumulator  
value.  
* @sample samples.collections.Collections.Aggregates.runningReduce
```

```
return emptyList()\n    var accumulator = this[0]\n    val result = ArrayList<UShort>(size).apply { add(accumulator)  
}\n    for (index in 1 until size) {\n        accumulator = operation(index, accumulator, this[index])\n    }\n    result.add(accumulator)\n}\nreturn result\n}\n\n/**\n * Returns a list containing successive accumulation  
values generated by applying [operation] from left to right  
* to each element and current accumulator value that  
starts with [initial] value.  
* Note that `acc` value passed to [operation] function should not be mutated;  
* otherwise it would affect the previous value in resulting list.  
* @param [operation] function that takes the  
index of an element, current accumulator value  
* and the element itself, and calculates the next accumulator  
value.  
* @sample samples.collections.Collections.Aggregates.runningReduce
```



otherwise it would affect the previous value in resulting list.

```

    @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.
    @sample samples.collections.Collections.Aggregates.scan
*/
@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
@WasExperimental(ExperimentalStdlibApi::class)
@kotlin.internal.InlineOnly
public inline fun <R>
    UIntArray.scan(initial: R, operation: (acc: R, UInt) -> R): List<R> {
    return runningFold(initial, operation)
}

```

Returns a list containing successive accumulation values generated by applying [operation] from left to right to each element and current accumulator value that starts with [initial] value. Note that `acc` value passed to [operation] function should not be mutated; otherwise it would affect the previous value in resulting list.

```

    @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.
    @sample samples.collections.Collections.Aggregates.scan
*/
@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
@WasExperimental(ExperimentalStdlibApi::class)
@kotlin.internal.InlineOnly
public inline fun <R>
    ULongArray.scan(initial: R, operation: (acc: R, ULong) -> R): List<R> {
    return runningFold(initial, operation)
}

```

Returns a list containing successive accumulation values generated by applying [operation] from left to right to each element and current accumulator value that starts with [initial] value. Note that `acc` value passed to [operation] function should not be mutated; otherwise it would affect the previous value in resulting list.

```

    @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.
    @sample samples.collections.Collections.Aggregates.scan
*/
@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
@WasExperimental(ExperimentalStdlibApi::class)
@kotlin.internal.InlineOnly
public inline fun <R>
    UByteArray.scan(initial: R, operation: (acc: R, UByte) -> R): List<R> {
    return runningFold(initial, operation)
}

```

Returns a list containing successive accumulation values generated by applying [operation] from left to right to each element and current accumulator value that starts with [initial] value. Note that `acc` value passed to [operation] function should not be mutated; otherwise it would affect the previous value in resulting list.

```

    @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.
    @sample samples.collections.Collections.Aggregates.scan
*/
@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
@WasExperimental(ExperimentalStdlibApi::class)
@kotlin.internal.InlineOnly
public inline fun <R>
    UShortArray.scan(initial: R, operation: (acc: R, UShort) -> R): List<R> {
    return runningFold(initial, operation)
}

```

Returns a list containing successive accumulation values generated by applying [operation] from left to right to each element, its index in the original array and current accumulator value that starts with [initial] value. Note that `acc` value passed to [operation] function should not be mutated; otherwise it would affect the previous value in resulting list.

```

    @param [operation] function that takes the index of an element, current accumulator value and the element itself, and calculates the next accumulator value.
    @sample samples.collections.Collections.Aggregates.scan
*/
@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
@WasExperimental(ExperimentalStdlibApi::class)
@kotlin.internal.InlineOnly
public inline fun <R>
    UIntArray.scanIndexed(initial: R, operation: (index: Int, acc: R, UInt) -> R): List<R> {
    return runningFoldIndexed(initial, operation)
}

```

Returns a list containing successive accumulation values generated by applying [operation] from left to right to each element, its index in the original array and current accumulator value that starts with [initial] value. Note that `acc` value passed to [operation] function should not be mutated; otherwise it would affect the previous value in resulting list.

```

    @param [operation] function that takes the index of an element, current accumulator value and the element itself, and calculates the next accumulator value.
    @sample samples.collections.Collections.Aggregates.scan
*/
@SinceKotlin("1.4")
@ExperimentalUnsignedTypes
@WasExperimental(ExperimentalStdlibApi::class)
@kotlin.internal.InlineOnly
public inline fun <R>
    ULongArray.scanIndexed(initial: R, operation: (index: Int, acc: R, ULong) -> R): List<R> {
    return runningFoldIndexed(initial, operation)
}

```

Returns a list

containing successive accumulation values generated by applying [operation] from left to right\n \* to each element, its index in the original array and current accumulator value that starts with [initial] value.\n \* \n \* Note that `acc` value passed to [operation] function should not be mutated;\n \* otherwise it would affect the previous value in resulting list.\n \* \n \* @param [operation] function that takes the index of an element, current accumulator value\n \* and the element itself, and calculates the

next accumulator value.\n \* \n \* @sample samples.collections.Collections.Aggregates.scan\n

```
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.scanIndexed(initial: R, operation: (index: Int, acc: R, UByte) -> R): List<R> {\n    return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample
```

samples.collections.Collections.Aggregates.scan\n

```
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.scanIndexed(initial: R, operation: (index: Int, acc: R, UShort) -> R): List<R> {\n    return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n * \n *\n@Deprecated("Use sumOf instead.", ReplaceWith("this.sumOf(selector)"))\n@DeprecatedSinceKotlin(warningSince =
```

```
"1.5")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.sumBy(selector: (UInt) -> UInt): UInt {\n    var sum: UInt = 0u\n    for (element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n * \n *\n@Deprecated("Use sumOf instead.", ReplaceWith("this.sumOf(selector)"))\n@DeprecatedSinceKotlin(warningSince =
```

```
"1.5")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.sumBy(selector: (ULong) -> UInt): UInt {\n    var sum: UInt = 0u\n    for (element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n * \n *\n@Deprecated("Use sumOf instead.", ReplaceWith("this.sumOf(selector)"))\n@DeprecatedSinceKotlin(warningSince =
```

```
"1.5")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.sumBy(selector: (UByte) -> UInt): UInt {\n    var sum: UInt = 0u\n    for (element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n * \n *\n@Deprecated("Use sumOf instead.", ReplaceWith("this.sumOf(selector)"))\n@DeprecatedSinceKotlin(warningSince =
```

```
"1.5")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.sumBy(selector: (UShort) -> UInt): UInt {\n    var sum: UInt = 0u\n    for (element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n * \n *\n@Deprecated("Use sumOf instead.", ReplaceWith("this.sumOf(selector)"))\n@DeprecatedSinceKotlin(warningSince =
```

```
"1.5")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.sumByDouble(selector: (UInt) -> Double): Double {\n    var sum: Double = 0.0\n    for (element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n * \n *\n@Deprecated("Use sumOf instead.", ReplaceWith("this.sumOf(selector)"))\n@DeprecatedSinceKotlin(warningSince =
```

```
"1.5")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.sumByDouble(selector: (ULong) -> Double): Double {\n    var sum: Double = 0.0\n    for (element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by
```

```

[selector] function applied to each element in the array.\n *\n@Deprecated("Use sumOf instead.",
ReplaceWith("this.sumOf(selector)"))\n@DeprecatedSinceKotlin(warningSince =
"1.5")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.sumByDouble(selector: (UByte) -> Double): Double {\n    var sum: Double = 0.0\n    for (element in
this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n *\n@Deprecated("Use
sumOf instead.", ReplaceWith("this.sumOf(selector)"))\n@DeprecatedSinceKotlin(warningSince =
"1.5")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.sumByDouble(selector: (UShort) -> Double): Double {\n    var sum: Double = 0.0\n    for (element in
this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfDouble")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.sumOf(selector:
(UIInt) -> Double): Double {\n    var sum: Double = 0.toDouble()\n    for (element in this) {\n        sum +=
selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum
of all values produced by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfDouble")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.sumOf(selector:
(ULong) -> Double): Double {\n    var sum: Double = 0.toDouble()\n    for (element in this) {\n        sum +=
selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfDouble")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.sumOf(selector:
(UByte) -> Double): Double {\n    var sum: Double = 0.toDouble()\n    for (element in this) {\n        sum += selector(element)\n    }\n    return
sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the
array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfDouble")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.sumOf(selector:
(UShort) -> Double): Double {\n    var sum: Double = 0.toDouble()\n    for (element in this) {\n        sum +=
selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfInt")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun
UIIntArray.sumOf(selector: (UIInt) -> Int): Int {\n    var sum: Int = 0.toInt()\n    for (element in this) {\n
sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector]
function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfInt")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.sumOf(selector:
(ULong) -> Int): Int {\n    var sum: Int = 0.toInt()\n    for (element in this) {\n        sum += selector(element)\n    }\n
return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in
the array.\n

```

```

*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfInt")\n
@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UByteArray.sumOf(selector: (UByte) -> Int): Int {\n  var sum: Int = 0.toInt()\n  for (element in this)
{\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfInt")\n
@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.sumOf(selector:
(UShort) -> Int): Int {\n  var sum: Int = 0.toInt()\n  for (element in this) {\n    sum += selector(element)\n  }\n
return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfLong")
\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.sumOf(selector: (UInt)
-> Long): Long {\n  var sum: Long = 0.toLong()\n  for (element in this) {\n    sum += selector(element)\n  }\n
return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in
the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfLong")
\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.sumOf(selector:
(ULong) -> Long): Long {\n  var sum: Long = 0.toLong()\n  for (element in this) {\n
sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector]
function applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfLong")
\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.sumOf(selector:
(UByte) -> Long): Long {\n  var sum: Long = 0.toLong()\n  for (element in this) {\n    sum +=
selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the array.\n
*\n@SinceKotlin("1.4")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfLong")
\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun UShortArray.sumOf(selector: (UShort) -> Long): Long {\n  var sum: Long = 0.toLong()\n  for (element in
this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfUInt")\n
\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.Inline
Only\npublic inline fun UIntArray.sumOf(selector: (UInt) -> UInt): UInt {\n  var sum: UInt = 0.toUInt()\n  for
(element in this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values
produced by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfUInt")\n
\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.Inline
Only\npublic
inline fun ULongArray.sumOf(selector: (ULong) -> UInt): UInt {\n  var sum: UInt = 0.toUInt()\n  for (element in
this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by

```

```

[selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfUInt")\n
\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.Inline
Only\npublic inline fun UByteArray.sumOf(selector: (UByte) -> UInt): UInt {\n    var sum: UInt = 0.toUInt()\n
for (element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each
element in the array.\n
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ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfUInt")\n
\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.Inline
Only\npublic inline fun UShortArray.sumOf(selector: (UShort) -> UInt): UInt {\n    var sum: UInt = 0.toUInt()\n
for (element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all
values produced by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfULong\
")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.Inli
neOnly\npublic
inline fun UIntArray.sumOf(selector: (UInt) -> ULong): ULong {\n    var sum: ULong = 0.toULong()\n    for
(element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values
produced by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfULong\
")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.Inli
neOnly\npublic inline fun ULongArray.sumOf(selector: (ULong) -> ULong): ULong {\n    var sum: ULong =
0.toULong()\n    for (element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns
the sum of all values produced by [selector] function applied to each element in the array.\n
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ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfULong\
")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.Inli
neOnly\npublic
inline fun UByteArray.sumOf(selector: (UByte) -> ULong): ULong {\n    var sum: ULong = 0.toULong()\n    for
(element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values
produced by [selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.5")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress("INAPPLICABLE_JVM_NAME")\n@kotlin.jvm.JvmName("sumOfULong\
")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.Inli
neOnly\npublic inline fun UShortArray.sumOf(selector: (UShort) -> ULong): ULong {\n
    var sum: ULong = 0.toULong()\n    for (element in this) {\n        sum += selector(element)\n    }\n    return
sum\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same
index.\n * The returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterable\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UIntArray.zip(other: Array<out
R>): List<Pair<UInt, R>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from
the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest
collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun <R> ULongArray.zip(other:
Array<out R>): List<Pair<ULong, R>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n *

```

Returns a list of pairs built from the elements of `this` array and the [other] array with the same index. The returned list has length of the shortest collection.

```

@sample samples.collections.Iterables.Operations.zipIterable
*/
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public infix fun <R> UByteArray.zip(other: Array<out R>): List<Pair<UByte, R>> {
    return zip(other) { t1, t2 -> t1 to t2 }
}
*/

```

Returns a list of pairs built from the elements of `this` array and the [other] array with the same index. The returned list has length of the shortest collection.

```

@sample samples.collections.Iterables.Operations.zipIterable
*/
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public infix fun <R> UShortArray.zip(other: Array<out R>): List<Pair<UShort, R>> {
    return zip(other) { t1, t2 -> t1 to t2 }
}
*/

```

Returns a list of values built from the elements of `this` array and the [other] array with the same index using the provided [transform] function applied to each pair of elements. The returned list has length of the shortest collection.

```

@sample samples.collections.Iterables.Operations.zipIterableWithTransform
*/
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun <R, V> UIntArray.zip(other: Array<out R>, transform: (a: UInt, b: R) -> V): List<V> {
    val size = minOf(size, other.size)
    val list = ArrayList<V>(size)
    for (i in 0 until size) {
        list.add(transform(this[i], other[i]))
    }
    return list
}
*/

```

Returns a list of values built from the elements of `this` array and the [other] array with the same index using the provided [transform] function applied to each pair of elements. The returned list has length of the shortest collection.

```

@sample samples.collections.Iterables.Operations.zipIterableWithTransform
*/
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun <R, V> ULongArray.zip(other: Array<out R>, transform: (a: ULong, b: R) -> V): List<V> {
    val size = minOf(size, other.size)
    val list = ArrayList<V>(size)
    for (i in 0 until size) {
        list.add(transform(this[i], other[i]))
    }
    return list
}
*/

```

Returns a list of values built from the elements of `this` array and the [other] array with the same index using the provided [transform] function applied to each pair of elements. The returned list has length of the shortest collection.

```

@sample samples.collections.Iterables.Operations.zipIterableWithTransform
*/
@SinceKotlin("1.3")
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public inline fun <R, V> UByteArray.zip(other: Array<out R>, transform: (a: UByte, b: R) -> V): List<V> {
    val size = minOf(size, other.size)
    val list = ArrayList<V>(size)
    for (i in 0 until size) {
        list.add(transform(this[i], other[i]))
    }
    return list
}
*/

```

Returns a list of values built from the elements of `this` array and the [other] array with the same index using the provided [transform] function applied to each pair of elements. The returned list has length of the shortest collection.

```

@sample samples.collections.Iterables.Operations.zipIterableWithTransform
*/
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun <R, V> UShortArray.zip(other: Array<out R>, transform: (a: UShort, b: R) -> V): List<V> {
    val size = minOf(size, other.size)
    val list = ArrayList<V>(size)
    for (i in 0 until size) {
        list.add(transform(this[i], other[i]))
    }
    return list
}
*/

```

Returns a list of pairs built from the elements of `this` collection and [other] array with the same index. The returned list has length of the shortest collection.

```

@sample samples.collections.Iterables.Operations.zipIterable
*/
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public infix fun <R> UIntArray.zip(other: Iterable<R>): List<Pair<UInt, R>> {
    return zip(other) { t1, t2 -> t1 to t2 }
}
*/

```

Returns a list of pairs built from the elements of `this` collection and [other] array with the same index. The returned list has length of the shortest collection.

```

@sample samples.collections.Iterables.Operations.zipIterable
*/
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public infix fun <R> ULongArray.zip(other: Iterable<R>): List<Pair<ULong, R>> {
    return zip(other) { t1, t2 -> t1 to t2 }
}
*/

```

Returns a list of pairs built from the elements of `this` collection and [other] array with the same index. The returned list has length of the shortest collection.

```

@sample samples.collections.Iterables.Operations.zipIterable

```

```

*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UByteArray.zip(other:
Iterable<R>): List<Pair<UByte, R>> {\n    return zip(other) { t1,
    t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with
the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterable\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UShortArray.zip(other:
Iterable<R>): List<Pair<UShort, R>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of
values built from the elements of `this` array and the [other] collection with the same index\n * using the provided
[transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n *
\n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V>
UIntArray.zip(other: Iterable<R>, transform: (a: UInt, b: R) -> V): List<V> {\n    val
    arraySize = size\n    val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n    var i = 0\n
    for (element in other) {\n        if (i >= arraySize) break\n        list.add(transform(this[i++], element))\n    }\n    return
list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the
same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has
length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V>
ULongArray.zip(other: Iterable<R>, transform: (a: ULong, b: R) -> V): List<V> {\n    val arraySize = size\n    val
list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n    var i = 0\n    for (element in other)
{\n        if (i >= arraySize) break\n        list.add(transform(this[i++],
        element))\n    }\n    return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the
[other] collection with the same index\n * using the provided [transform] function applied to each pair of
elements.\n * The returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V>
UByteArray.zip(other: Iterable<R>, transform: (a: UByte, b: R) -> V): List<V> {\n    val arraySize = size\n    val list
= ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n    var i = 0\n    for (element in other) {\n
        if (i >= arraySize) break\n        list.add(transform(this[i++], element))\n    }\n    return list\n}\n\n/**\n * Returns a
list of values built from the elements of `this` array and the [other] collection with the same index\n * using the
provided
[transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n *
\n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V>
UShortArray.zip(other: Iterable<R>, transform: (a: UShort, b: R) -> V): List<V> {\n    val arraySize = size\n    val
list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n    var i = 0\n    for (element in other)
{\n        if (i >= arraySize) break\n        list.add(transform(this[i++], element))\n    }\n    return list\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The
returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterable\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun UIntArray.zip(other:
UIntArray): List<Pair<UInt, UInt>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs
built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of
the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun ULongArray.zip(other: ULongArray):
List<Pair<ULong, ULong>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built
from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the

```

```

shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun UByteArray.zip(other: UByteArray):
List<Pair<UByte, UByte>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n**\n * Returns a list of pairs built
from
the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest
collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun UShortArray.zip(other: UShortArray):
List<Pair<UShort, UShort>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n**\n * Returns a list of values built
from the elements of `this` array and the [other] array with the same index\n * using the provided [transform]
function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>
UIntArray.zip(other: UIntArray, transform: (a: UInt, b: UInt) -> V): List<V> {\n    val size = minOf(size,
other.size)\n    val list = ArrayList<V>(size)\n    for
(i in 0 until size) {\n        list.add(transform(this[i], other[i]))\n    }\n    return list\n}\n\n**\n * Returns a list of
values built from the elements of `this` array and the [other] array with the same index\n * using the provided
[transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n *
@sample samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>
ULongArray.zip(other: ULongArray, transform: (a: ULong, b: ULong) -> V): List<V> {\n    val size = minOf(size,
other.size)\n    val list = ArrayList<V>(size)\n    for (i in 0 until size) {\n        list.add(transform(this[i], other[i]))\n
}\n    return list\n}\n\n**\n * Returns a list of values built from the elements of `this` array and the [other] array
with the same index\n * using the provided [transform] function applied to each pair of elements.\n
* The returned list has length of the shortest array.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>
UByteArray.zip(other: UByteArray, transform: (a: UByte, b: UByte) -> V): List<V> {\n    val size = minOf(size,
other.size)\n    val list = ArrayList<V>(size)\n    for (i in 0 until size) {\n        list.add(transform(this[i], other[i]))\n
}\n    return list\n}\n\n**\n * Returns a list of values built from the elements of `this` array and the [other] array
with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned
list has length of the shortest array.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>
UShortArray.zip(other: UShortArray, transform:
(a: UShort, b: UShort) -> V): List<V> {\n    val size = minOf(size, other.size)\n    val list = ArrayList<V>(size)\n
for (i in 0 until size) {\n        list.add(transform(this[i], other[i]))\n    }\n    return list\n}\n\n**\n * Returns the sum
of all elements in the array.\n
*\n@kotlin.jvm.JvmName("sumOfUInt")\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedT
ypes::class)\npublic fun Array<out UInt>.sum(): UInt {\n    var sum: UInt = 0u\n    for (element in this) {\n        sum
+= element\n    }\n    return sum\n}\n\n**\n * Returns the sum of all elements in the array.\n
*\n@kotlin.jvm.JvmName("sumOfULong")\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsigned
Types::class)\npublic fun Array<out ULong>.sum(): ULong {\n    var sum: ULong = 0uL\n    for (element in this)
{\n        sum += element\n    }\n    return sum\n}\n\n**\n * Returns the sum of all elements in the array.\n
*\n@kotlin.jvm.JvmName("sumOfUByte")\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsigned
Types::class)\npublic
fun Array<out UByte>.sum(): UInt {\n    var sum: UInt = 0u\n    for (element in this) {\n        sum += element\n
}\n    return sum\n}\n\n**\n * Returns the sum of all elements in the array.\n
*\n@kotlin.jvm.JvmName("sumOfUShort")\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsigned

```



```

Types::class)\npublic fun Array<out UShort>.sum(): UInt {\n    var sum: UInt = 0u\n    for (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nUIntArray.sum(): UInt {\n    return storage.sum().toUInt()\n}\n\n/**\n * Returns the sum of all elements in the\n * array.\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nULongArray.sum(): ULong {\n    return storage.sum().toULong()\n}\n\n/**\n * Returns the sum of all elements in\n * the array.\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nUByteArray.sum(): UInt {\n    return sumOf { it.toUInt() }\n}\n\n/**\n * Returns the sum of all elements in the\n * array.\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nUShortArray.sum(): UInt {\n    return sumOf { it.toUInt() }\n}\n\n", /*\n * Copyright 2010-2022 JetBrains s.r.o. and\n * Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that\n * can be found in the license/LICENSE.txt file.\n */\n\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("UCollectionsKt")\n\npackage\nkotlin.collections\n\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:\nhttps://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\nimport kotlin.random.*\nimport\nkotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns an array\n * of UByte containing all of the elements of this collection.\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun Collection<UByte>.toUByteArray():\nUByteArray {\n    val result = UByteArray(size)\n    var index = 0\n    for (element in this)\n        result[index++] =\n        element\n    return result\n}\n\n/**\n * Returns an array of UInt containing all of the elements of this collection.\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun Collection<UInt>.toUIntArray(): UIntArray\n{\n    val result = UIntArray(size)\n    var index = 0\n    for (element in this)\n        result[index++] = element\n    return result\n}\n\n/**\n * Returns an array of ULong containing all of the elements of this collection.\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun Collection<ULong>.toULongArray():\nULongArray {\n    val result = ULongArray(size)\n    var index = 0\n    for (element in this)\n        result[index++] =\n        element\n    return result\n}\n\n/**\n * Returns an array of UShort containing all of the elements of this collection.\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun Collection<UShort>.toUShortArray():\nUShortArray {\n    val result = UShortArray(size)\n    var index = 0\n    for (element in this)\n        result[index++] =\n        element\n    return result\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n\n@kotlin.jvm.JvmName("sumOfUInt")\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedT\nypes::class)\npublic fun Iterable<UInt>.sum(): UInt {\n    var sum: UInt = 0u\n    for (element in this) {\n        sum\n        += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n\n@kotlin.jvm.JvmName("sumOfULong")\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsigned\nTypes::class)\npublic fun Iterable<ULong>.sum(): ULong {\n    var sum: ULong = 0uL\n    for (element in this) {\n        sum\n        += element\n    }\n    return sum\n}\n\n/**\n * Returns\n * the sum of all elements in the collection.\n */\n\n@kotlin.jvm.JvmName("sumOfUByte")\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsigned\nTypes::class)\npublic fun Iterable<UByte>.sum(): UInt {\n    var sum: UInt = 0u\n    for (element in this) {\n        sum\n        += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n\n@kotlin.jvm.JvmName("sumOfUShort")\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsigned\nTypes::class)\npublic fun Iterable<UShort>.sum(): UInt {\n    var sum: UInt = 0u\n    for (element in this) {\n        sum\n        += element\n    }\n    return sum\n}\n\n", /*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming\n * Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the\n * license/LICENSE.txt file.\n */\n\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("UComparisonsKt")\n\npackage\nkotlin.comparisons\n\n// NOTE: THIS FILE IS AUTO-GENERATED

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by the GenerateStandardLib.kt\n// See: \n\nimport
kotlin.random.\*\n\n\*\*\n \* Returns the greater of two values.\n
\*\n@SinceKotlin\("1.5"\)\n@WasExperimental\(ExperimentalUnsignedTypes::class\)\npublic fun maxOf\(a: UInt, b:
UInt\): UInt {\n    return if \(a >= b\) a else b\n}\n\n\*\*\n \* Returns the greater of two values.\n
\*\n@SinceKotlin\("1.5"\)\n@WasExperimental\(ExperimentalUnsignedTypes::class\)\npublic fun maxOf\(a: ULong,
b: ULong\): ULong {\n    return if \(a >= b\) a else b\n}\n\n\*\*\n \* Returns the greater of two values.\n
\*\n@SinceKotlin\("1.5"\)\n@WasExperimental\(ExperimentalUnsignedTypes::class\)\npublic fun maxOf\(a: UByte,
b: UByte\): UByte {\n    return if \(a >= b\) a else b\n}\n\n\*\*\n \* Returns the greater of two values.\n
\*\n@SinceKotlin\("1.5"\)\n@WasExperimental\(ExperimentalUnsignedTypes::class\)\npublic fun maxOf\(a: UShort,
b: UShort\): UShort {\n    return if \(a >= b\) a else b\n}\n\n\*\*\n \* Returns
the greater of three values.\n
\*\n@SinceKotlin\("1.5"\)\n@WasExperimental\(ExperimentalUnsignedTypes::class\)\n@kotlin.internal.InlineOnly\n
public inline fun maxOf\(a: UInt, b: UInt, c: UInt\): UInt {\n    return maxOf\(a, maxOf\(b, c\)\)\n}\n\n\*\*\n \* Returns
the greater of three values.\n
\*\n@SinceKotlin\("1.5"\)\n@WasExperimental\(ExperimentalUnsignedTypes::class\)\n@kotlin.internal.InlineOnly\n
public inline fun maxOf\(a: ULong, b: ULong, c: ULong\): ULong {\n    return maxOf\(a, maxOf\(b, c\)\)\n}\n\n\*\*\n \*
Returns the greater of three values.\n
\*\n@SinceKotlin\("1.5"\)\n@WasExperimental\(ExperimentalUnsignedTypes::class\)\n@kotlin.internal.InlineOnly\n
public inline fun maxOf\(a: UByte, b: UByte, c: UByte\): UByte {\n    return maxOf\(a, maxOf\(b, c\)\)\n}\n\n\*\*\n \*
Returns the greater of three values.\n
\*\n@SinceKotlin\("1.5"\)\n@WasExperimental\(ExperimentalUnsignedTypes::class\)\n@kotlin.internal.InlineOnly\n
public inline fun maxOf\(a: UShort, b: UShort, c: UShort\): UShort {\n    return maxOf\(a,
maxOf\(b, c\)\)\n}\n\n\*\*\n \* Returns the greater of the given values.\n
\*\n@SinceKotlin\("1.4"\)\n@ExperimentalUnsignedTypes\npublic fun maxOf\(a: UInt, vararg other: UInt\): UInt
{\n    var max = a\n    for \(e in other\) max = maxOf\(max, e\)\n    return max\n}\n\n\*\*\n \* Returns the greater of the
given values.\n
\*\n@SinceKotlin\("1.4"\)\n@ExperimentalUnsignedTypes\npublic fun maxOf\(a: ULong, vararg
other: ULong\): ULong {\n    var max = a\n    for \(e in other\) max = maxOf\(max, e\)\n    return max\n}\n\n\*\*\n \*
Returns the greater of the given values.\n
\*\n@SinceKotlin\("1.4"\)\n@ExperimentalUnsignedTypes\npublic fun
maxOf\(a: UByte, vararg other: UByte\): UByte {\n    var max = a\n    for \(e in other\) max = maxOf\(max, e\)\n
return max\n}\n\n\*\*\n \* Returns the greater of the given values.\n
\*\n@SinceKotlin\("1.4"\)\n@ExperimentalUnsignedTypes\npublic fun maxOf\(a: UShort, vararg other: UShort\):
UShort {\n    var max = a\n    for \(e in other\) max = maxOf\(max, e\)\n    return max\n}\n\n\*\*\n \* Returns the
smaller of two values.\n
\*\n@SinceKotlin\("1.5"\)\n@WasExperimental\(ExperimentalUnsignedTypes::class\)\npublic fun minOf\(a: UInt, b:
UInt\): UInt {\n    return if \(a <= b\) a else b\n}\n\n\*\*\n \* Returns the smaller of two values.\n
\*\n@SinceKotlin\("1.5"\)\n@WasExperimental\(ExperimentalUnsignedTypes::class\)\npublic fun minOf\(a: ULong,
b: ULong\): ULong {\n    return if \(a <= b\) a else b\n}\n\n\*\*\n \* Returns the smaller of two values.\n
\*\n@SinceKotlin\("1.5"\)\n@WasExperimental\(ExperimentalUnsignedTypes::class\)\npublic fun minOf\(a: UByte,
b: UByte\): UByte {\n    return if \(a <= b\) a else b\n}\n\n\*\*\n \* Returns the smaller of two values.\n
\*\n@SinceKotlin\("1.5"\)\n@WasExperimental\(ExperimentalUnsignedTypes::class\)\npublic fun minOf\(a: UShort,
b: UShort\): UShort {\n    return if \(a <= b\) a else b\n}\n\n\*\*\n \* Returns the smaller of three values.\n
\*\n@SinceKotlin\("1.5"\)\n@WasExperimental\(ExperimentalUnsignedTypes::class\)\n@kotlin.internal.InlineOnly\n
public inline
fun minOf\(a: UInt, b: UInt, c: UInt\): UInt {\n    return minOf\(a, minOf\(b, c\)\)\n}\n\n\*\*\n \* Returns the smaller of
three values.\n
\*\n@SinceKotlin\("1.5"\)\n@WasExperimental\(ExperimentalUnsignedTypes::class\)\n@kotlin.internal.InlineOnly\n
public inline fun minOf\(a: ULong, b: ULong, c: ULong\): ULong {\n    return minOf\(a, minOf\(b, c\)\)\n}\n\n\*\*\n \*
Returns the smaller of three values.\n

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*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun minOf(a: UByte, b: UByte, c: UByte): UByte {\n    return minOf(a, minOf(b, c))\n}\n\n/**\n * Returns the smaller of three values.\n */
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun minOf(a: UShort, b: UShort, c: UShort): UShort {\n    return minOf(a, minOf(b, c))\n}\n\n/**\n * Returns the smaller of the given values.\n */
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun\nminOf(a: UInt, vararg\n    other: UInt): UInt {\n    var min = a\n    for (e in other) min = minOf(min, e)\n    return min\n}\n\n/**\n * Returns\nthe smaller of the given values.\n */
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun minOf(a:\n    ULong, vararg other: ULong): ULong {\n    var min = a\n    for (e in other) min = minOf(min, e)\n    return\nmin\n}\n\n/**\n * Returns the smaller of the given values.\n */
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun minOf(a: UByte, vararg other: UByte):\n    UByte {\n    var min = a\n    for (e in other) min = minOf(min, e)\n    return min\n}\n\n/**\n * Returns the smaller of\nthe given values.\n */
*\n@SinceKotlin("1.4")\n@ExperimentalUnsignedTypes\npublic fun minOf(a: UShort, vararg\n    other: UShort): UShort {\n    var min = a\n    for (e in other) min = minOf(min, e)\n    return min\n}\n\n"/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is\n * governed by the Apache 2.0 license that\n * can be found in the license/LICENSE.txt file.\n */
*\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("URangesKt")\n\npackage\nkotlin.ranges\n\n/\n\nNOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n\nSee:\nhttps://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\nimport kotlin.random.*\n\n/**\n * Returns the\nfirst element.\n */\n * @throws NoSuchElementException if the progression is empty.\n */
*\n@SinceKotlin("1.7")\npublic fun UIntProgression.first(): UInt {\n    if (isEmpty())\n        throw\n        NoSuchElementException("Progression $this is empty.")\n    return this.first\n}\n\n/**\n * Returns the first\n * element.\n * @throws NoSuchElementException if the progression is empty.\n */
*\n@SinceKotlin("1.7")\npublic fun ULongProgression.first(): ULong {\n    if (isEmpty())\n        throw\n        NoSuchElementException("Progression $this is empty.")\n    return this.first\n}\n\n/**\n * Returns the first\n * element, or `null` if the progression is\n * empty.\n */
*\n@SinceKotlin("1.7")\npublic fun UIntProgression.firstOrNull(): UInt? {\n    return if (isEmpty())\n        null else this.first\n}\n\n/**\n * Returns the first element, or `null` if the progression is empty.\n */
*\n@SinceKotlin("1.7")\npublic fun ULongProgression.firstOrNull(): ULong? {\n    return if (isEmpty())\n        null else\n        this.first\n}\n\n/**\n * Returns the last element.\n */\n * @throws NoSuchElementException if the progression is\n * empty.\n * @sample samples.collections.Collections.Elements.last\n */
*\n@SinceKotlin("1.7")\npublic fun\n    UIntProgression.last(): UInt {\n    if (isEmpty())\n        throw NoSuchElementException("Progression $this is\n        empty.")\n    return this.last\n}\n\n/**\n * Returns the last element.\n */\n * @throws NoSuchElementException if\n * the progression is empty.\n * @sample samples.collections.Collections.Elements.last\n */
*\n@SinceKotlin("1.7")\npublic fun ULongProgression.last(): ULong {\n    if (isEmpty())\n        throw\n        NoSuchElementException("Progression\n        $this is empty.")\n    return this.last\n}\n\n/**\n * Returns the last element, or `null` if the progression is empty.\n */\n * @sample samples.collections.Collections.Elements.last\n */
*\n@SinceKotlin("1.7")\npublic fun\n    UIntProgression.lastOrNull(): UInt? {\n    return if (isEmpty())\n        null else this.last\n}\n\n/**\n * Returns the last\n * element, or `null` if the progression is empty.\n */\n * @sample samples.collections.Collections.Elements.last\n */
*\n@SinceKotlin("1.7")\npublic fun ULongProgression.lastOrNull(): ULong? {\n    return if (isEmpty())\n        null else\n        this.last\n}\n\n/**\n * Returns a random element from this range.\n */\n * @throws IllegalArgumentException if this\n * range is empty.\n */
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UIntRange.random(): UInt {\n    return random(Random)\n}\n\n/**\n * Returns a random element\n * from this range.\n */\n * @throws IllegalArgumentException if this

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range is empty.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULongRange.random(): ULong {\n    return random(Random)\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UIntRange.random(random: Random): UInt {\n    try {\n        return random.nextUInt(this)\n    } catch(e: IllegalArgumentException) {\n        throw NoSuchElementException(e.message)\n    }\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun ULongRange.random(random: Random): ULong {\n    try {\n        return random.nextULong(this)\n    } catch(e: IllegalArgumentException) {\n        throw NoSuchElementException(e.message)\n    }\n}\n\n/**\n * Returns a random element from this range, or `null` if this range is empty.\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UIntRange.randomOrNull(): UInt? {\n    return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this range, or `null` if this range is empty.\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULongRange.randomOrNull(): ULong? {\n    return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness, or `null` if this range is empty.\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\npublic fun UIntRange.randomOrNull(random: Random): UInt? {\n    if (isEmpty())\n        return null\n    return random.nextUInt(this)\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness, or `null` if this range is empty.\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\npublic fun ULongRange.randomOrNull(random: Random): ULong? {\n    if (isEmpty())\n        return null\n    return random.nextULong(this)\n}\n\n/**\n * Returns `true` if this range contains the specified [element].\n * \n * Always returns `false` if the [element] is `null`.\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline operator fun UIntRange.contains(element: UInt?): Boolean {\n    return element != null && contains(element)\n}\n\n/**\n * Returns `true` if this range contains the specified [element].\n * \n * Always returns `false` if the [element] is `null`.\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline operator fun ULongRange.contains(element: ULong?): Boolean {\n    return element != null && contains(element)\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun UIntRange.contains(value: UByte): Boolean {\n    return contains(value.toUInt())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun ULongRange.contains(value: UByte): Boolean {\n    return contains(value.toULong())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun ULongRange.contains(value: UInt): Boolean {\n    return contains(value.toULong())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun UIntRange.contains(value: ULong): Boolean {\n    return (value shr UInt.SIZE_BITS) == 0uL && contains(value.toUInt())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */

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*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun
UIntRange.contains(value: UShort): Boolean {\n    return contains(value.toUInt())\n}\n\n/**\n * Checks if the
specified [value] belongs to this range.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun
ULongRange.contains(value: UShort): Boolean {\n    return contains(value.toULong())\n}\n\n/**\n * Returns a
progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less
than or equal to `this` value.\n * If the [to] value is greater than `this` value the
returned progression is empty.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun
UByte.downTo(to: UByte): UIntProgression {\n    return UIntProgression.fromClosedRange(this.toUInt(),
to.toUInt(), -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -
1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value
the returned progression is empty.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun
UInt.downTo(to: UInt): UIntProgression {\n    return UIntProgression.fromClosedRange(this, to, -1)\n}\n\n/**\n *
Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should
be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is
empty.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic
infix fun ULong.downTo(to: ULong): ULongProgression {\n    return ULongProgression.fromClosedRange(this,
to, -1L)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n
* The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the
returned progression is empty.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun
UShort.downTo(to: UShort): UIntProgression {\n    return UIntProgression.fromClosedRange(this.toUInt(),
to.toUInt(), -1)\n}\n\n/**\n * Returns a progression that goes over the same range in the opposite direction with the
same step.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
UIntProgression.reversed(): UIntProgression {\n    return UIntProgression.fromClosedRange(last, first, -
step)\n}\n\n/**\n * Returns a progression that goes
over the same range in the opposite direction with the same step.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
ULongProgression.reversed(): ULongProgression {\n    return ULongProgression.fromClosedRange(last, first, -
step)\n}\n\n/**\n * Returns a progression that goes over the same range with the given step.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun
UIntProgression.step(step: Int): UIntProgression {\n    checkStepIsPositive(step > 0, step)\n    return
UIntProgression.fromClosedRange(first, last, if (this.step > 0) step else -step)\n}\n\n/**\n * Returns a progression
that goes over the same range with the given step.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun
ULongProgression.step(step: Long): ULongProgression {\n    checkStepIsPositive(step > 0, step)\n    return
ULongProgression.fromClosedRange(first, last, if (this.step > 0)
step else -step)\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If
the [to] value is less than or equal to `this` value, then the returned range is empty.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun
UByte.until(to: UByte): UIntRange {\n    if (to <= UByte.MIN_VALUE) return UIntRange.EMPTY\n    return
this.toUInt() .. (to - 1u).toUInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to]
value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun UInt.until(to:
UInt): UIntRange {\n    if (to <= UInt.MIN_VALUE) return UIntRange.EMPTY\n    return this .. (to -
1u).toUInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the

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[to] value is less than or

equal to `this` value, then the returned range is empty.

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*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun\nULong.until(to: ULong): ULongRange {\n    if (to <= ULong.MIN_VALUE) return ULongRange.EMPTY\n    return this .. (to - 1u).toULong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to]\n * value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */
```

```
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun\nUShort.until(to: UShort): UIntRange {\n    if (to <= UShort.MIN_VALUE) return UIntRange.EMPTY\n    return\n    this.toUInt() .. (to - 1u).toUInt()\n}\n\n/**\n * Ensures that this value is not less than the specified\n * [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the\n * [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeastUnsigned\n */
```

```
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic\nfun UInt.coerceAtLeast(minimumValue: UInt): UInt {\n    return if (this < minimumValue) minimumValue else\n    this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value\n * if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample\n * samples.comparisons.ComparableOps.coerceAtLeastUnsigned\n */
```

```
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun\nULong.coerceAtLeast(minimumValue: ULong): ULong {\n    return if (this < minimumValue) minimumValue else\n    this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value\n * if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample\n * samples.comparisons.ComparableOps.coerceAtLeastUnsigned\n */
```

```
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic\nfun UByte.coerceAtLeast(minimumValue: UByte): UByte {\n    return if (this < minimumValue) minimumValue\n    else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this\n * value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample\n * samples.comparisons.ComparableOps.coerceAtLeastUnsigned\n */
```

```
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun\nUShort.coerceAtLeast(minimumValue: UShort): UShort {\n    return if (this < minimumValue) minimumValue else\n    this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this\n * value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample\n * samples.comparisons.ComparableOps.coerceAtMostUnsigned\n */
```

```
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun\nUInt.coerceAtMost(maximumValue:\n    UInt): UInt {\n    return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is\n * not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the\n * [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample\n * samples.comparisons.ComparableOps.coerceAtMostUnsigned\n */
```

```
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun\nULong.coerceAtMost(maximumValue: ULong): ULong {\n    return if (this > maximumValue) maximumValue else\n    this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this\n * value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample\n * samples.comparisons.ComparableOps.coerceAtMostUnsigned\n */
```

```
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun\nUByte.coerceAtMost(maximumValue: UByte): UByte {\n    return if (this > maximumValue) maximumValue\n    else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return\n * this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample\n * samples.comparisons.ComparableOps.coerceAtMostUnsigned\n */
```

```
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
```

```

UShort.coerceAtMost(maximumValue: UShort): UShort {
    return if (this > maximumValue) maximumValue
    else this
}

/**
 * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].
 * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or
 * [maximumValue] if this value is greater than [maximumValue].
 */
@sample
samples.comparisons.ComparableOps.coerceInUnsigned

*
@SinceKotlin("1.5")
@WasExperimental(ExperimentalUnsignedTypes::class)
public fun
UInt.coerceIn(minimumValue: UInt, maximumValue: UInt): UInt {
    if (minimumValue > maximumValue) throw IllegalArgumentException("Cannot coerce value to an empty range: maximum
    $maximumValue is less than minimum $minimumValue.")
    if (this < minimumValue) return minimumValue
    if (this > maximumValue) return maximumValue
    return this
}

/**
 * Ensures that this value lies in the
 * specified range [minimumValue]..[maximumValue].
 * @return this value if it's in the range, or
 * [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than
 * [maximumValue].
 */
@sample
samples.comparisons.ComparableOps.coerceInUnsigned

*
@SinceKotlin("1.5")
@WasExperimental(ExperimentalUnsignedTypes::class)
public fun
ULong.coerceIn(minimumValue: ULong, maximumValue: ULong): ULong {
    if (minimumValue > maximumValue) throw IllegalArgumentException("Cannot coerce value to an empty range: maximum
    $maximumValue is less than minimum $minimumValue.")
    if (this < minimumValue) return minimumValue
    if (this > maximumValue) return maximumValue
    return this
}

/**
 * Ensures that this value lies in the
 * specified range [minimumValue]..[maximumValue].
 * @return this value if it's in the range, or
 * [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than
 * [maximumValue].
 */
@sample
samples.comparisons.ComparableOps.coerceInUnsigned

*
@SinceKotlin("1.5")
@WasExperimental(ExperimentalUnsignedTypes::class)
public fun
UByte.coerceIn(minimumValue: UByte, maximumValue: UByte): UByte {
    if (minimumValue > maximumValue) throw IllegalArgumentException("Cannot coerce value to an empty range: maximum
    $maximumValue is less than minimum $minimumValue.")
    if (this < minimumValue) return minimumValue
    if (this > maximumValue) return maximumValue
    return this
}

/**
 * Ensures that this value lies in the
 * specified range [minimumValue]..[maximumValue].
 * @return this value if it's in the range,
 * or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than
 * [maximumValue].
 */
@sample
samples.comparisons.ComparableOps.coerceInUnsigned

*
@SinceKotlin("1.5")
@WasExperimental(ExperimentalUnsignedTypes::class)
public fun
UShort.coerceIn(minimumValue: UShort, maximumValue: UShort): UShort {
    if (minimumValue > maximumValue) throw IllegalArgumentException("Cannot coerce value to an empty range: maximum
    $maximumValue is less than minimum $minimumValue.")
    if (this < minimumValue) return minimumValue
    if (this > maximumValue) return maximumValue
    return this
}

/**
 * Ensures that this value lies in the
 * specified [range].
 * @return this value if it's in the [range], or `range.start` if this value is less than
 * `range.start`, or `range.endInclusive` if this value is greater than `range.endInclusive`.
 */
@sample
samples.comparisons.ComparableOps.coerceInUnsigned

*
@SinceKotlin("1.5")
@WasExperimental(ExperimentalUnsignedTypes::class)
public fun
fun UInt.coerceIn(range: ClosedRange<UInt>): UInt {
    if (range is ClosedFloatingPointRange) {
        return
        this.coerceIn<UInt>(range)
    }
    if (range.isEmpty()) throw IllegalArgumentException("Cannot coerce value to
    an empty range: $range.")
    return when {
        this < range.start -> range.start
        this > range.endInclusive -
        > range.endInclusive
        else -> this
    }
}

/**
 * Ensures that this value lies in the specified [range].
 * @return this value if it's in the [range], or `range.start` if this value is less than `range.start`, or
 * `range.endInclusive` if this value is greater than `range.endInclusive`.
 */
@sample
samples.comparisons.ComparableOps.coerceInUnsigned

*
@SinceKotlin("1.5")
@WasExperimental(ExperimentalUnsignedTypes::class)
public fun
ULong.coerceIn(range: ClosedRange<ULong>): ULong {
    if (range is ClosedFloatingPointRange) {
        return
        this.coerceIn<ULong>(range)
    }
}

```





```

RuntimeException {\n  constructor()\n  constructor(message: String?)\n}\n\n@SinceKotlin("1.3")\npublic
expect open class ArithmeticException : RuntimeException {\n  constructor()\n  constructor(message:
String?)\n}\n\n@Deprecated("This exception type is not supposed to be thrown or caught in common code and will
be removed from kotlin-stdlib-common
soon.\", level = DeprecationLevel.ERROR)\npublic expect open class NoWhenBranchMatchedException :
RuntimeException {\n  constructor()\n  constructor(message: String?)\n  constructor(message: String?, cause:
Throwable?)\n  constructor(cause: Throwable?)\n}\n\n@Deprecated("This exception type is not supposed to be
thrown or caught in common code and will be removed from kotlin-stdlib-common soon.\", level =
DeprecationLevel.ERROR)\npublic expect class UninitializedPropertyAccessException : RuntimeException {\n
constructor()\n  constructor(message: String?)\n  constructor(message: String?, cause: Throwable?)\n
constructor(cause: Throwable?)\n}\n\n/**\n * Thrown after invocation of a function or property that was expected to
return `Nothing`, but returned something instead.\n */\n\n@SinceKotlin("1.4")\n@PublishedApi\ninternal class
KotlinNothingValueException : RuntimeException {\n  constructor() : super()\n  constructor(message: String?) :
super(message)\n  constructor(message:
String?, cause: Throwable?) : super(message, cause)\n  constructor(cause: Throwable?) :
super(cause)\n}\n\n/**\n * Returns the detailed description of this throwable with its stack trace.\n */\n * The
detailed description includes:\n * - the short description (see [Throwable.toString]) of this throwable;\n * - the
complete stack trace;\n * - detailed descriptions of the exceptions that were [suppressed][suppressedExceptions] in
order to deliver this exception;\n * - the detailed description of each throwable in the [Throwable.cause] chain.\n
*/\n\n@SinceKotlin("1.4")\npublic expect fun Throwable.stackTraceToString(): String\n\n/**\n * Prints the [detailed
description][Throwable.stackTraceToString] of this throwable to the standard output or standard error output.\n
*/\n\n@SinceKotlin("1.4")\n@Suppress("EXTENSION_SHADOWED_BY_MEMBER")\npublic expect fun
Throwable.printStackTrace(): Unit\n\n/**\n * When supported by the platform, adds the specified exception to the
list of exceptions that were\n * suppressed in order to deliver this exception.\n
*/\n\n@SinceKotlin("1.4")\n@Suppress("EXTENSION_SHADOWED_BY_MEMBER")\npublic expect fun
Throwable.addSuppressed(exception: Throwable)\n\n/**\n * Returns a list of all exceptions that were suppressed in
order to deliver this exception.\n */\n * The list can be empty:\n * - if no exceptions were suppressed;\n * - if the
platform doesn't support suppressed exceptions;\n * - if this [Throwable] instance has disabled the suppression.\n
*/\n\n@SinceKotlin("1.4")\npublic expect val Throwable.suppressedExceptions: List<Throwable>\n", "/*\n *
Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is
governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
kotlin.js\n\nimport kotlin.annotation.AnnotationTarget.*\n\n/**\n * Gives a declaration (a function, a property or a
class) specific name in JavaScript.\n */\n\n@Target(CLASS,
FUNCTION, PROPERTY, CONSTRUCTOR, PROPERTY_GETTER,
PROPERTY_SETTER)\n@OptionalExpectation\npublic expect annotation class JsName(val name: String)\n\n/**\n
* Marks experimental JS export annotations.\n */\n * Note that behavior of these annotations will likely be changed
in the future.\n */\n * Usages of such annotations will be reported as warnings unless an explicit opt-in with\n * the
[OptIn] annotation, e.g. `@OptIn(ExperimentalJsExport::class)`,\n * or with the `opt-
in=kotlin.js.ExperimentalJsExport` compiler option is given.\n */\n\n@RequiresOptIn(level =
RequiresOptIn.Level.WARNING)\n@MustBeDocumented\n@Retention(AnnotationRetention.BINARY)\n@Since
Kotlin("1.4")\npublic annotation class ExperimentalJsExport\n\n/**\n * Exports top-level declaration on JS
platform.\n */\n * Compiled module exposes declarations that are marked with this annotation without name
mangling.\n */\n * This annotation can be applied to either files or top-level declarations.\n */\n * It is currently
prohibited to export the following kinds of declarations:\n * * `expect` declarations\n * * inline functions
with reified type parameters\n * * suspend functions\n * * secondary constructors without `@JsName`\n * *
extension properties\n * * enum classes\n * * annotation classes\n */\n * Signatures of exported declarations must
only contain `exportable` types:\n * * `dynamic`, `Any`, `String`, `Boolean`, `Byte`, `Short`, `Int`, `Float`,
`Double`\n * * `BooleanArray`, `ByteArray`, `ShortArray`, `IntArray`, `FloatArray`, `DoubleArray`\n * *

```



```

`true` if the element has been successfully removed; `false` if it was not present in the collection.\n  */\n  public
fun remove(element: E): Boolean\n\n
    // Bulk Modification Operations\n  /**\n   * Adds all of the elements of the specified collection to this
collection.\n   *\n   * @return `true` if any of the specified elements was added to the collection, `false` if the
collection was not modified.\n   */\n  public fun addAll(elements: Collection<E>): Boolean\n\n  /**\n   *
Removes all of this collection's elements that are also contained in the specified collection.\n   *\n   * @return
`true` if any of the specified elements was removed from the collection, `false` if the collection was not modified.\n
   */\n  public fun removeAll(elements: Collection<E>): Boolean\n\n  /**\n   * Retains only the elements in this
collection that are contained in the specified collection.\n   *\n   * @return `true` if any element was removed
from the collection, `false` if the collection was not modified.\n   */\n  public fun retainAll(elements:
Collection<E>): Boolean\n\n  /**\n   * Removes all elements
from this collection.\n   */\n  public fun clear(): Unit\n}\n\n/**\n * A generic ordered collection of elements.
Methods in this interface support only read-only access to the list;\n * read/write access is supported through the
[MutableList] interface.\n * @param E the type of elements contained in the list. The list is covariant in its element
type.\n */\npublic interface List<out E> : Collection<E> {\n
    // Query Operations\n\n    override val size: Int\n
    override fun isEmpty(): Boolean\n    override fun contains(element: @UnsafeVariance E): Boolean\n    override fun
iterator(): Iterator<E>\n\n    // Bulk Operations\n    override fun containsAll(elements: Collection<@UnsafeVariance
E>): Boolean\n\n    // Positional Access Operations\n    /**\n     * Returns the element at the specified index in the
list.\n     */\n    public operator fun get(index: Int): E\n\n    // Search Operations\n    /**\n     * Returns the index of
the first occurrence of the specified element in the list,
or -1 if the specified\n     * element is not contained in the list.\n     */\n    public fun indexOf(element:
@UnsafeVariance E): Int\n\n    /**\n     * Returns the index of the last occurrence of the specified element in the list,
or -1 if the specified\n     * element is not contained in the list.\n     */\n    public fun lastIndexOf(element:
@UnsafeVariance E): Int\n\n    // List Iterators\n    /**\n     * Returns a list iterator over the elements in this list (in
proper sequence).\n     */\n    public fun listIterator(): ListIterator<E>\n\n    /**\n     * Returns a list iterator over the
elements in this list (in proper sequence), starting at the specified [index].\n     */\n    public fun listIterator(index:
Int): ListIterator<E>\n\n    // View\n    /**\n     * Returns a view of the portion of this list between the specified
[fromIndex] (inclusive) and [toIndex] (exclusive).\n     * The returned list is backed by this list, so non-structural
changes in the returned list are
reflected in this list, and vice-versa.\n     *\n     * Structural changes in the base list make the behavior of the view
undefined.\n     */\n    public fun subList(fromIndex: Int, toIndex: Int): List<E>\n}\n\n/**\n * A generic ordered
collection of elements that supports adding and removing elements.\n * @param E the type of elements contained in
the list. The mutable list is invariant in its element type.\n */\npublic interface MutableList<E> : List<E>,
MutableCollection<E> {\n
    // Modification Operations\n    /**\n     * Adds the specified element to the end of this
list.\n     *\n     * @return `true` because the list is always modified as the result of this operation.\n     */\n
    override fun add(element: E): Boolean\n\n    override fun remove(element: E): Boolean\n\n    // Bulk Modification
Operations\n    /**\n     * Adds all of the elements of the specified collection to the end of this list.\n     *\n     * The
elements are appended in the order they appear in the [elements]
collection.\n     *\n     * @return `true` if the list was changed as the result of the operation.\n     */\n
    override fun addAll(elements: Collection<E>): Boolean\n\n    /**\n     * Inserts all of the elements of the specified collection
[elements] into this list at the specified [index].\n     *\n     * @return `true` if the list was changed as the result of the
operation.\n     */\n    public fun addAll(index: Int, elements: Collection<E>): Boolean\n\n    override fun
removeAll(elements: Collection<E>): Boolean\n    override fun retainAll(elements: Collection<E>): Boolean\n
    override fun clear(): Unit\n\n    // Positional Access Operations\n    /**\n     * Replaces the element at the specified
position in this list with the specified element.\n     *\n     * @return the element previously at the specified
position.\n     */\n    public operator fun set(index: Int, element: E): E\n\n    /**\n     * Inserts an element into the list
at the specified [index].\n     */\n    public

```

```

fun add(index: Int, element: E): Unit\n\n /**\n * Removes an element at the specified [index] from the list.\n *\n * @return the element that has been removed.\n */\n public fun removeAt(index: Int): E\n\n // List Iterators\n override fun listIterator(): MutableListIterator<E>\n\n override fun listIterator(index: Int):\n MutableListIterator<E>\n\n // View\n override fun subList(fromIndex: Int, toIndex: Int):\n MutableList<E>\n}\n\n/**\n * A generic unordered collection of elements that does not support duplicate\n elements.\n * Methods in this interface support only read-only access to the set;\n * read/write access is supported\n through the [MutableSet] interface.\n * @param E the type of elements contained in the set. The set is covariant in\n its element type.\n */\npublic interface Set<out E> : Collection<E> {\n // Query Operations\n\n override val size:\n Int\n\n override fun isEmpty(): Boolean\n\n override fun contains(element: @UnsafeVariance\n E): Boolean\n\n override fun iterator(): Iterator<E>\n\n // Bulk Operations\n\n override fun containsAll(elements:\n Collection<@UnsafeVariance E>): Boolean\n}\n\n/**\n * A generic unordered collection of elements that does not\n support duplicate elements, and supports\n * adding and removing elements.\n * @param E the type of elements\n contained in the set. The mutable set is invariant in its element type.\n */\npublic interface MutableSet<E> : Set<E>,\n MutableCollection<E> {\n // Query Operations\n\n override fun iterator(): MutableIterator<E>\n\n //\n Modification Operations\n\n /**\n * Adds the specified element to the set.\n *\n * @return `true` if the\n element has been added, `false` if the element is already contained in the set.\n */\n\n override fun add(element:\n E): Boolean\n\n\n override fun remove(element: E): Boolean\n\n // Bulk Modification Operations\n\n override\n fun addAll(elements: Collection<E>): Boolean\n\n override fun removeAll(elements:\n Collection<E>): Boolean\n\n override fun retainAll(elements: Collection<E>): Boolean\n\n override fun clear():\n Unit\n}\n\n/**\n * A collection that holds pairs of objects (keys and values) and supports efficiently retrieving\n * the value corresponding to each key. Map keys are unique; the map holds only one value for each key.\n * Methods\n in this interface support only read-only access to the map; read-write access is supported through\n * the\n [MutableMap] interface.\n * @param K the type of map keys. The map is invariant in its key type, as it\n * can\n accept key as a parameter (of [containsKey] for example) and return it in [keys] set.\n * @param V the type of map\n values. The map is covariant in its value type.\n */\npublic interface Map<K, out V> {\n // Query Operations\n\n /**\n * Returns the number of key/value pairs in the map.\n */\n\n public val size: Int\n\n /**\n * Returns\n `true` if the map is empty (contains no elements), `false` otherwise.\n */\n\n\n /*\n public fun isEmpty(): Boolean\n\n /**\n * Returns `true` if the map contains the specified [key].\n */\n\n\n /*\n public fun containsKey(key: K): Boolean\n\n /**\n * Returns `true` if the map maps one or more keys to\n the specified [value].\n */\n\n\n /*\n public fun containsValue(value: @UnsafeVariance V): Boolean\n\n /**\n * Returns the value corresponding to the given [key], or `null` if such a key is not present in the map.\n */\n\n\n /*\n public operator fun get(key: K): V?\n\n /**\n * Returns the value corresponding to the given [key], or\n [defaultValue] if such a key is not present in the map.\n *\n * @since JDK 1.8\n */\n\n\n @SinceKotlin("1.1")\n @PlatformDependent\n public fun getOrDefault(key: K, defaultValue:\n @UnsafeVariance V): V {\n // See default implementation in JDK sources\n throw\n NotImplementedError()\n }\n\n // Views\n\n /**\n * Returns a read-only [Set] of all keys in this map.\n */\n\n\n /*\n public val keys: Set<K>\n\n /**\n * Returns a read-only [Collection] of all values in this map. Note that this\n collection may contain duplicate values.\n */\n\n\n /*\n public val values: Collection<V>\n\n /**\n * Returns a read-\n only [Set] of all key/value pairs in this map.\n */\n\n\n /*\n public val entries: Set<Map.Entry<K, V>>\n\n /**\n * Represents a key/value pair held by a [Map].\n */\n\n\n /*\n public interface Entry<out K, out V> {\n /**\n * Returns the key of this key/value pair.\n */\n\n\n /*\n public val key: K\n\n /**\n * Returns the value of\n this key/value pair.\n */\n\n\n /*\n public val value: V\n }\n}\n\n/**\n * A modifiable collection that holds pairs\n of objects (keys and values) and supports efficiently retrieving\n * the value corresponding to each key. Map keys\n are unique; the map holds only one value for each key.\n * @param K the type of map keys. The map is invariant in\n its key type.\n * @param V the\n type of map values. The mutable map is invariant in its value type.\n */\npublic interface MutableMap<K, V> :\n Map<K, V> {\n // Modification Operations\n\n /**\n * Associates the specified [value] with the specified [key]\n in the map.\n *\n * @return the previous value associated with the key, or `null` if the key was not present in

```

```

the map.\n    */\n    public fun put(key: K, value: V): V?\n\n    /**\n     * Removes the specified key and its
corresponding value from this map.\n    */\n    * @return the previous value associated with the key, or `null` if the
key was not present in the map.\n    */\n    public fun remove(key: K): V?\n\n    /**\n     * Removes the entry for the
specified key only if it is mapped to the specified value.\n    */\n    * @return true if entry was removed\n    */\n    @SinceKotlin("1.1")\n    @PlatformDependent\n    public fun remove(key: K, value: V): Boolean {\n        // See
default implementation in JDK sources\n        return true\n    }\n\n    // Bulk Modification Operations\n    /**\n     * Updates this map with key/value pairs from the specified
map [from].\n    */\n    public fun putAll(from: Map<out K, V>): Unit\n\n    /**\n     * Removes all elements from
this map.\n    */\n    public fun clear(): Unit\n\n    // Views\n    /**\n     * Returns a [MutableSet] of all keys in this
map.\n    */\n    override val keys: MutableSet<K>\n\n    /**\n     * Returns a [MutableCollection] of all values in
this map. Note that this collection may contain duplicate values.\n    */\n    override val values:
MutableCollection<V>\n\n    /**\n     * Returns a [MutableSet] of all key/value pairs in this map.\n    */\n    override val entries: MutableSet<MutableMap.MutableEntry<K, V>>\n\n    /**\n     * Represents a key/value pair
held by a [MutableMap].\n    */\n    public interface MutableEntry<K, V> : Map.Entry<K, V> {\n        /**\n         *
Changes the value associated with the key of this entry.\n        */\n        * @return the previous value corresponding to the key.\n    */\n    public fun setValue(newValue: V): V\n    }\n\n    }
}
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"License");\n * you may not use this file except in compliance with the License.\n * You may obtain a copy of the
License at\n * http://www.apache.org/licenses/LICENSE-2.0\n * Unless required by applicable law or
agreed to in writing, software\n * distributed under the License is distributed on an "AS IS" BASIS,\n *
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.\n * See the License for
the specific language governing permissions and\n * limitations under the License.\n */\n\npackage kotlin\n\n/**\n * The type with only one value: the `Unit` object. This type corresponds to the `void` type in Java.\n */\npublic object
Unit {\n    override fun toString() = "kotlin.Unit"\n}
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software\n * distributed under the License is distributed on an "AS IS" BASIS,\n * WITHOUT WARRANTIES
OR CONDITIONS OF ANY KIND, either express or implied.\n * See the License for the specific language
governing permissions and\n * limitations under the License.\n */\n\npackage kotlin.annotation\n\nimport
kotlin.annotation.AnnotationTarget.*\n\n/**\n * Contains the list of code elements which are the possible annotation
targets\n */\npublic enum class AnnotationTarget {\n    /** Class, interface or object, annotation class is also
included */\n    CLASS,\n    /** Annotation class only */\n    ANNOTATION_CLASS,\n    /** Generic type
parameter */\n    TYPE_PARAMETER,\n    /** Property\n    */\n    PROPERTY,\n    /** Field, including property's backing field */\n    FIELD,\n    /** Local variable */\n    LOCAL_VARIABLE,\n    /** Value parameter of a function or a constructor */\n    VALUE_PARAMETER,\n    /** Constructor only (primary or secondary) */\n    CONSTRUCTOR,\n    /** Function (constructors are not
included) */\n    FUNCTION,\n    /** Property getter only */\n    PROPERTY_GETTER,\n    /** Property setter
only */\n    PROPERTY_SETTER,\n    /** Type usage */\n    TYPE,\n    /** Any expression */\n    EXPRESSION,\n    /** File */\n    FILE,\n    /** Type alias */\n    @SinceKotlin("1.1")\n    TYPEALIAS\n}\n\n/**\n * Contains the list of possible annotation's retentions.\n */\n * Determines how an
annotation is stored in binary output.\n */\npublic enum class AnnotationRetention {\n    /** Annotation isn't stored
in binary output */\n    SOURCE,\n    /** Annotation is stored in binary output, but invisible for reflection */\n    BINARY,\n    /** Annotation is stored
in binary output and visible for reflection (default retention) */\n    RUNTIME\n}\n\n/**\n * This meta-annotation
indicates the kinds of code elements which are possible targets of an annotation.\n */\n * If the target meta-annotation
is not present on an annotation declaration, the annotation is applicable to the following elements:\n * [CLASS],
[PROPERTY], [FIELD], [LOCAL_VARIABLE], [VALUE_PARAMETER], [CONSTRUCTOR], [FUNCTION],

```

```

[PROPERTY_GETTER], [PROPERTY_SETTER].\n * \n * @property allowedTargets list of allowed annotation
targets\n * \n @Target(AnnotationTarget.ANNOTATION_CLASS)\n @MustBeDocumented\n public annotation
class Target(vararg val allowedTargets: AnnotationTarget)\n\n /**\n * This meta-annotation determines whether an
annotation is stored in binary output and visible for reflection. By default, both are true.\n * \n * @property value
necessary annotation retention (RUNTIME, BINARY or SOURCE)\n
*\n @Target(AnnotationTarget.ANNOTATION_CLASS)\n public annotation class Retention(val
value: AnnotationRetention = AnnotationRetention.RUNTIME)\n\n /**\n * This meta-annotation determines that an
annotation is applicable twice or more on a single code element\n
*\n @Target(AnnotationTarget.ANNOTATION_CLASS)\n public annotation class Repeatable\n\n /**\n * This
meta-annotation determines that an annotation is a part of public API and therefore should be included in the
generated\n * documentation for the element to which the annotation is applied.\n
*\n @Target(AnnotationTarget.ANNOTATION_CLASS)\n public annotation class MustBeDocumented\n", /*\n *
Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is
governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\n @JsName("arrayIterator")\n internal fun arrayIterator(array: dynamic, type: String?) = when (type) {\n null
-> {\n val arr: Array<dynamic> = array\n object : Iterator<dynamic> {\n var index =
0\n override fun hasNext() = index < arr.size\n override fun next() = if (index < arr.size) arr[index++]
else throw NoSuchElementException("$index")\n } \n } \n "BooleanArray" ->
booleanArrayIterator(array)\n "ByteArray" -> byteArrayIterator(array)\n "ShortArray" ->
shortArrayIterator(array)\n "CharArray" -> charArrayIterator(array)\n "IntArray" -> intArrayIterator(array)\n
"LongArray" -> longArrayIterator(array)\n "FloatArray" -> floatArrayIterator(array)\n "DoubleArray" ->
doubleArrayIterator(array)\n else -> throw IllegalStateException("Unsupported type argument for arrayIterator:
$type")\n }\n\n @JsName("booleanArrayIterator")\n internal fun booleanArrayIterator(array: BooleanArray) =
object : BooleanIterator() {\n var index = 0\n override fun hasNext() = index < array.size\n override fun
nextBoolean() = if (index < array.size) array[index++] else throw
NoSuchElementException("$index")\n }\n\n @JsName("byteArrayIterator")\n internal
fun byteArrayIterator(array: ByteArray) = object : ByteIterator() {\n var index = 0\n override fun hasNext() =
index < array.size\n override fun nextByte() = if (index < array.size) array[index++] else throw
NoSuchElementException("$index")\n }\n\n @JsName("shortArrayIterator")\n internal fun
shortArrayIterator(array: ShortArray) = object : ShortIterator() {\n var index = 0\n override fun hasNext() =
index < array.size\n override fun nextShort() = if (index < array.size) array[index++] else throw
NoSuchElementException("$index")\n }\n\n @JsName("charArrayIterator")\n internal fun charArrayIterator(array:
CharArray) = object : CharIterator() {\n var index = 0\n override fun hasNext() = index < array.size\n override
fun nextChar() = if (index < array.size) array[index++] else throw
NoSuchElementException("$index")\n }\n\n @JsName("intArrayIterator")\n internal fun intArrayIterator(array:
IntArray) = object : IntIterator()
{\n var index = 0\n override fun hasNext() = index < array.size\n override fun nextInt() = if (index <
array.size) array[index++] else throw
NoSuchElementException("$index")\n }\n\n @JsName("floatArrayIterator")\n internal fun
floatArrayIterator(array: FloatArray) = object : FloatIterator() {\n var index = 0\n override fun hasNext() = index
< array.size\n override fun nextFloat() = if (index < array.size) array[index++] else throw
NoSuchElementException("$index")\n }\n\n @JsName("doubleArrayIterator")\n internal fun
doubleArrayIterator(array: DoubleArray) = object : DoubleIterator() {\n var index = 0\n override fun hasNext()
= index < array.size\n override fun nextDouble() = if (index < array.size) array[index++] else throw
NoSuchElementException("$index")\n }\n\n @JsName("longArrayIterator")\n internal fun longArrayIterator(array:
LongArray) = object : LongIterator() {\n var index = 0\n override fun hasNext() = index < array.size\n
override fun

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nextLong() = if (index < array.size) array[index++] else throw
NoSuchElementException("$index")\n}\n\n@JsName("PropertyMetadata")\ninternal class
PropertyMetadata(@JsName("callableName") val name:
String)\n\n@JsName("noWhenBranchMatched")\ninternal fun noWhenBranchMatched(): Nothing = throw
NoWhenBranchMatchedException()\n\n@JsName("subSequence")\ninternal fun subSequence(c: CharSequence,
startIndex: Int, endIndex: Int): CharSequence {\n    if (c is String) {\n        return c.substring(startIndex, endIndex)\n    } else {\n        return c.asDynamic().`subSequence_vux9f0$`(startIndex, endIndex)\n    }\n}\n\n@JsName("captureStack")\ninternal fun captureStack(@Suppress("UNUSED_PARAMETER")
baseClass: JsClass<in Throwable>, instance: Throwable) {\n    if (js("Error").captureStackTrace) {\n        // Using
uncropped stack traces due to KT-37563.\n        // Precise stack traces are implemented in JS IR compiler and
stdlib\n        js("Error").captureStackTrace(instance);\n    } else {\n        instance.asDynamic().stack = js("new Error()").stack;\n    }\n}\n\n@JsName("newThrowable")\ninternal fun newThrowable(message: String?, cause: Throwable?):
Throwable {\n    val throwable = js("new Error()")\n    throwable.message = if (jsTypeOf(message) ==
"undefined") {\n        if (cause != null) cause.toString() else null\n    } else {\n        message\n    }\n    throwable.cause = cause\n    throwable.name = "Throwable"\n    return
throwable\n}\n\n@JsName("BoxedChar")\ninternal class BoxedChar(val c: Int) : Comparable<Int> {\n    override
fun equals(other: Any?): Boolean {\n        return other is BoxedChar && c == other.c\n    }\n    override fun
hashCode(): Int {\n        return c\n    }\n    override fun toString(): String {\n        return
js("this.c").unsafeCast<Char>().toString()\n    }\n    override fun compareTo(other: Int): Int {\n        return
js("this.c - other").unsafeCast<Int>()\n    }\n    @JsName("valueOf")\n    public
fun valueOf(): Int {\n        return c\n    }\n}\n\n@kotlin.internal.InlineOnly\ninternal inline fun <T> concat(args:
Array<T>): T {\n    val typed = js("Array")(args.size)\n    for (i in args.indices) {\n        val arr = args[i]\n        if
(arr !is Array<*>) {\n            typed[i] = js("[]").slice.call(arr)\n        } else {\n            typed[i] = arr\n        }\n    }\n    return js("[]").concat.apply(js("[]"), typed);\n}\n\n/** Concat regular Array's and TypedArray's into an Array.\n * \n@PublishedApi\n@JsName("arrayConcat")\n@Suppress("UNUSED_PARAMETER")\ninternal fun <T>
arrayConcat(a: T, b: T): T {\n    return concat(js("arguments"))\n}\n\n/** Concat primitive arrays. Main use:
prepare vararg arguments.\n * For compatibility with 1.1.0 the arguments may be a mixture of Array's and
TypedArray's.\n * \n * If the first argument is TypedArray (Byte-, Short-, Char-, Int-, Float-, and DoubleArray)
returns a TypedArray, otherwise an Array.\n * If the first argument
has the $type$ property (Boolean-, Char-, and LongArray) copy its value to result.$type$.\n * If the first argument
is a regular Array without the $type$ property default to arrayConcat.\n
*\n@PublishedApi\n@JsName("primitiveArrayConcat")\n@Suppress("UNUSED_PARAMETER")\ninternal
fun <T> primitiveArrayConcat(a: T, b: T): T {\n    val args: Array<T> = js("arguments")\n    if (a is Array<*> &&
a.asDynamic().`$type$` === undefined) {\n        return concat(args)\n    } else {\n        var size = 0\n        for (i in
args.indices) {\n            size += args[i].asDynamic().length as Int\n        }\n        val result = js("new
a.constructor(size)")\n        kotlin.copyArrayType(a, result)\n        size = 0\n        for (i in args.indices) {\n            val
arr = args[i].asDynamic()\n            for (j in 0 until arr.length) {\n                result[size++] = arr[j]\n            }\n        }\n        return result\n    }\n}\n\n@JsName("booleanArrayOf")\ninternal fun booleanArrayOf()
= withType("BooleanArray", js("[]").slice.call(arguments))\n\n@JsName("charArrayOf")\ninternal fun
charArrayOf() = withType("CharArray", js("new
Uint16Array(arguments)")\n\n@JsName("longArrayOf")\ninternal fun longArrayOf() =
withType("LongArray",
js("[]").slice.call(arguments))\n\n@JsName("withType")\n@kotlin.internal.InlineOnly\ninternal inline fun
withType(type: String, array: dynamic): dynamic {\n    array.`$type$` = type\n    return array\n}"/*\n * Copyright
2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\n/**\n *
Function corresponding to JavaScript's `typeof` operator\n

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*\/n@kotlin.internal.InlineOnly\n@Suppress("\UNUSED_PARAMETER")\npublic inline fun jsTypeOf(a: Any?):
String = js("typeof a")\n", /*\/n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n
* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\/n\n@file:Suppress("\UNUSED_PARAMETER", "\NOTHING_TO_INLINE")\n\npackage kotlin\n\n/**\n *
Returns an empty array of the specified type [T].\n *\/n\npublic inline fun <T> emptyArray(): Array<T> =
js("[ ]")\n\n@library\n\npublic fun <T> arrayOf(vararg elements: T): Array<T> =
definedExternally\n\n@library\n\npublic fun doubleArrayOf(vararg elements: Double): DoubleArray =
definedExternally\n\n@library\n\npublic fun floatArrayOf(vararg elements: Float): FloatArray =
definedExternally\n\n@library\n\npublic fun longArrayOf(vararg elements: Long): LongArray =
definedExternally\n\n@library\n\npublic fun intArrayOf(vararg elements: Int): IntArray =
definedExternally\n\n@library\n\npublic fun charArrayOf(vararg elements: Char): CharArray =
definedExternally\n\n@library\n\npublic fun shortArrayOf(vararg elements: Short): ShortArray =
definedExternally\n\n@library\n\npublic fun byteArrayOf(vararg
elements: Byte): ByteArray = definedExternally\n\n@library\n\npublic fun booleanArrayOf(vararg elements:
Boolean): BooleanArray = definedExternally\n\n/**\n * Creates a new instance of the [Lazy] that uses the specified
initialization function [initializer].\n *\/n\npublic actual fun <T> lazy(initializer: () -> T): Lazy<T> =
UnsafeLazyImpl(initializer)\n\n/**\n * Creates a new instance of the [Lazy] that uses the specified initialization
function [initializer].\n *\/n\n * The [mode] parameter is ignored. *\/n\npublic actual fun <T> lazy(mode:
LazyThreadSafetyMode, initializer: () -> T): Lazy<T> = UnsafeLazyImpl(initializer)\n\n/**\n * Creates a new
instance of the [Lazy] that uses the specified initialization function [initializer].\n *\/n\n * The [lock] parameter is
ignored.\n *\/n\npublic actual fun <T> lazy(lock: Any?, initializer: () -> T): Lazy<T> =
UnsafeLazyImpl(initializer)\n\n\ninternal fun fillFrom(src: dynamic, dst: dynamic): dynamic {\n    val srcLen: Int =
src.length\n    val
dstLen: Int = dst.length\n    var index: Int = 0\n    while (index < srcLen && index < dstLen) dst[index] =
src[index++]\n    return dst\n}\n\n\ninternal fun arrayCopyResize(source: dynamic, newSize: Int, defaultValue:
Any?): dynamic {\n    val result = source.slice(0, newSize)\n    copyArrayType(source, result)\n    var index: Int =
source.length\n    if (newSize > index) {\n        result.length = newSize\n        while (index < newSize)
result[index++] = defaultValue\n    }\n    return result\n}\n\n\ninternal fun <T> arrayPlusCollection(array: dynamic,
collection: Collection<T>): dynamic {\n    val result = array.slice()\n    result.length += collection.size\n    copyArrayType(array, result)\n    var index: Int = array.length\n    for (element in collection) result[index++] =
element\n    return result\n}\n\n\ninternal fun <T> fillFromCollection(dst: dynamic, startIndex: Int, collection:
Collection<T>): dynamic {\n    var index = startIndex\n    for (element in collection) dst[index++]
= element\n    return dst\n}\n\n\ninternal inline fun copyArrayType(from: dynamic, to: dynamic) {\n    if
(from.`$type$` != undefined) {\n        to.`$type$` = from.`$type$`\n    }\n}\n\n\ninternal inline fun jsIsType(obj:
dynamic, jsClass: dynamic) = js("Kotlin").isType(obj, jsClass)", /*\/n * Copyright 2010-2021 JetBrains s.r.o. and
Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\n *\/n\npackage kotlin\n\n/**\n * Creates a Char with the specified
[code].\n *\/n\n * @sample samples.text.Chars.charFromCode\n
*\/n\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\n\npubli
c actual inline fun Char(code: UShort): Char {\n    return code.toInt().toChar()\n}\n", /*\/n * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt
file.\n *\/n\npackage kotlin.coroutines\n\nimport
kotlin.coroutines.intrinsics.COROUTINE_SUSPENDED\n\n@SinceKotlin("1.3")\n@JsName("CoroutineImpl")\n\ninternal abstract class CoroutineImpl(private val resultContinuation: Continuation<Any?>) : Continuation<Any?>
{\n    protected var state = 0\n    protected var exceptionState = 0\n    protected var result: Any? = null\n    protected
var exception: Throwable? = null\n    protected var finallyPath: Array<Int>? = null\n\n    public override val context:

```



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CoroutineContext = resultContinuation.context\n\n private var intercepted_: Continuation<Any?>? = null\n\n
public fun intercepted(): Continuation<Any?> =\n    intercepted_\n    ?:\n(context[ContinuationInterceptor]?.interceptContinuation(this) ?: this)\n    .also { intercepted_ = it }\n\n
override fun resumeWith(result: Result<Any?>) {\n    var current = this\n    var currentResult: Any? =
result.getOrNull()\n    var currentException:
Throwable? = result.exceptionOrNull()\n    // This loop unrolls recursion in current.resumeWith(param) to
make saner and shorter stack traces on resume\n    while (true) {\n        with(current) {\n            val
completion = resultContinuation\n            // Set result and exception fields in the current continuation\n
if (currentException == null) {\n                this.result = currentResult\n            } else {\n                state =
exceptionState\n                exception = currentException\n            }\n            try {\n                val
outcome = doResume()\n                if (outcome === COROUTINE_SUSPENDED) return\n
currentResult = outcome\n                currentException = null\n            } catch (exception: dynamic) { // Catch
all exceptions\n                currentResult = null\n                currentException =
exception.unsafeCast<Throwable>()\n
            }\n            releaseIntercepted() // this state machine instance is terminating\n            if (completion
is CoroutineImpl) {\n                // unrolling recursion via loop\n                current = completion\n            }
else {\n                // top-level completion reached -- invoke and return\n                currentException?.let {\n
completion.resumeWithException(it)\n                } ?: completion.resume(currentResult)\n
return\n            }\n        }\n    }\n\n private fun releaseIntercepted() {\n    val intercepted =
intercepted_\n    if (intercepted != null && intercepted !== this) {\n
context[ContinuationInterceptor]!!.releaseInterceptedContinuation(intercepted)\n    }\n    this.intercepted_ =
CompletedContinuation // just in case\n    }\n\n protected abstract fun doResume(): Any?\n}\n\ninternal object
CompletedContinuation
: Continuation<Any?> {\n    override val context: CoroutineContext\n        get() = error("This continuation is
already complete")\n\n    override fun resumeWith(result: Result<Any?>) {\n        error("This continuation is
already complete")\n    }\n\n    override fun toString(): String = "This continuation is already
complete"\n}\n\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n *
Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\n\n@file:Suppress("UNCHECKED_CAST", "RedundantVisibilityModifier")\n\npackage kotlin\n\nimport
kotlin.contracts.*\nimport kotlin.internal.InlineOnly\nimport kotlin.jvm.JvmField\nimport
kotlin.jvm.JvmInline\nimport kotlin.jvm.JvmName\n\n/**\n * A discriminated union that encapsulates a successful
outcome with a value of type [T]\n * or a failure with an arbitrary [Throwable] exception.\n
*\n\n@SinceKotlin("1.3")\n\n@JvmInline\npublic
value class Result<out T> @PublishedApi internal constructor(\n    @PublishedApi\n    internal val value: Any?\n)
: Serializable {\n    // discovery\n\n    /**\n     * Returns `true` if this instance represents a successful outcome.\n     *
In this case [isFailure] returns `false`.\n     *\n     * public val isSuccess: Boolean get() = value !is Failure\n     *\n     * Returns `true` if this instance represents a failed outcome.\n     * In this case [isSuccess] returns `false`.\n     *\n     * public val isFailure: Boolean get() = value is Failure\n     * // value & exception retrieval\n     *\n     * Returns the
encapsulated value if this instance represents [success][Result.isSuccess] or `null`\n     * if it is
[failure][Result.isFailure].\n     *\n     * This function is a shorthand for `getOrElse { null }` (see [getOrElse]) or\n
* `fold(onSuccess = { it }, onFailure = { null })` (see [fold]).\n     *\n     * @InlineOnly\n     * public inline fun
getOrNull(): T? =\n        when\n        {\n            isFailure -> null\n            else -> value as T\n        }\n        /**\n         * Returns the encapsulated
[Throwable] exception if this instance represents [failure][isFailure] or `null`\n         * if it is [success][isSuccess].\n
*\n         * This function is a shorthand for `fold(onSuccess = { null }, onFailure = { it })` (see [fold]).\n         *\n         * public
fun exceptionOrNull(): Throwable? =\n            when (value) {\n                is Failure -> value.exception\n                else ->
null\n            }\n            /**\n             * Returns a string `Success(v)` if this instance represents [success][Result.isSuccess]\n
             * where `v` is a string representation of the value or a string `Failure(x)` if\n             * it is [failure][isFailure] where `x` is

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a string representation of the exception.\n    *^/n    public override fun toString(): String =\n        when (value) {\n            is Failure -> value.toString() // \"Failure($exception)\"\n            else -> \"Success($value)\"\n        }\n\n    // companion with constructors\n    /**\n     * Companion object for [Result] class that contains its constructor\n     functions\n     * [success] and [failure].\n     *^/n    public companion object {\n        /**\n         * Returns an instance\n         that encapsulates the given [value] as successful value.\n         *^/n\n        @Suppress(\"INAPPLICABLE_JVM_NAME\")\n        @InlineOnly\n        @JvmName(\"success\")\n        public\n        inline fun <T> success(value: T): Result<T> =\n            Result(value)\n            /**\n             * Returns an instance that\n             encapsulates the given [Throwable] [exception] as failure.\n             *^/n\n        @Suppress(\"INAPPLICABLE_JVM_NAME\")\n        @InlineOnly\n        @JvmName(\"failure\")\n        public\n        inline fun <T> failure(exception: Throwable): Result<T> =\n            Result(createFailure(exception))\n        }\n\n        internal class Failure(\n            @JvmField\n            val exception: Throwable\n        ): Serializable {\n            override fun\n            equals(other:\n                Any?): Boolean = other is Failure && exception == other.exception\n            override fun hashCode(): Int =\n                exception.hashCode()\n            override fun toString(): String = \"Failure($exception)\"\n        }\n    }\n\n    /**\n     * Creates an\n     instance of internal marker [Result.Failure] class to\n     * make sure that this class is not exposed in ABI.\n     *^/n\n    @PublishedApi\n    @SinceKotlin(\"1.3\")\n    internal fun createFailure(exception: Throwable): Any =\n        Result.Failure(exception)\n\n    /**\n     * Throws exception if the result is failure. This internal function minimizes\n     * inlined bytecode for [getOrThrow] and makes sure that in the future we can\n     * add some exception-augmenting\n     logic here (if needed).\n     *^/n\n    @PublishedApi\n    @SinceKotlin(\"1.3\")\n    internal fun Result<*>.throwOnFailure() {\n        if (value is Result.Failure) throw value.exception\n    }\n\n    /**\n     * Calls the specified function [block] and returns its\n     encapsulated result if invocation was successful,\n     * catching any [Throwable] exception that was thrown\n     from the [block] function execution and encapsulating it as a failure.\n     *^/n\n    @InlineOnly\n    @SinceKotlin(\"1.3\")\n    public inline fun <R> runCatching(block: () -> R): Result<R> {\n        return try {\n            Result.success(block())\n        } catch (e: Throwable) {\n            Result.failure(e)\n        }\n    }\n\n    /**\n     * Calls the specified function [block] with `this` value as its receiver and returns its encapsulated result if invocation\n     was successful,\n     * catching any [Throwable] exception that was thrown from the [block] function execution and\n     encapsulating it as a failure.\n     *^/n\n    @InlineOnly\n    @SinceKotlin(\"1.3\")\n    public inline fun <T, R>\n        T.runCatching(block: T.() -> R): Result<R> {\n        return try {\n            Result.success(block())\n        } catch (e:\n            Throwable) {\n            Result.failure(e)\n        }\n    }\n\n    /**\n     * Returns the encapsulated value if this\n     instance represents [success][Result.isSuccess] or throws the encapsulated [Throwable] exception\n     * if it is\n     [failure][Result.isFailure].\n     *^/n\n    * This function is a shorthand for `getOrElse { throw it }` (see [getOrElse]).\n     *^/n\n    @InlineOnly\n    @SinceKotlin(\"1.3\")\n    public inline fun <T> Result<T>.getOrThrow(): T {\n        throwOnFailure()\n        return value as T\n    }\n\n    /**\n     * Returns the encapsulated value if this instance represents\n     [success][Result.isSuccess] or the\n     * result of [onFailure] function for the encapsulated [Throwable] exception if it\n     is [failure][Result.isFailure].\n     *^/n\n    * Note, that this function rethrows any [Throwable] exception thrown by\n     [onFailure] function.\n     *^/n\n    * This function is a shorthand for `fold(onSuccess = { it }, onFailure = onFailure)` (see\n     [fold]).\n     *^/n\n    @InlineOnly\n    @SinceKotlin(\"1.3\")\n    public inline fun <R, T : R> Result<T>.getOrElse(onFailure:\n        (exception: Throwable) -> R): R {\n        contract {\n            callsInPlace(onFailure,\n                InvocationKind.AT_MOST_ONCE)\n        }\n        return when (val exception = exceptionOrNull()) {\n            null ->\n            value as T\n            else -> onFailure(exception)\n        }\n    }\n\n    /**\n     * Returns the encapsulated value if this instance represents [success][Result.isSuccess] or the\n     * [defaultValue] if it is [failure][Result.isFailure].\n     *^/n\n    * This function is a shorthand for `getOrElse { defaultValue\n     }` (see [getOrElse]).\n     *^/n\n    @InlineOnly\n    @SinceKotlin(\"1.3\")\n    public inline fun <R, T : R>\n        Result<T>.getOrDefault(defaultValue: R): R {\n        if (isFailure) return defaultValue\n        return value as\n            T\n    }\n\n    /**\n     * Returns the result of [onSuccess] for the encapsulated value if this instance represents\n     [success][Result.isSuccess]\n     * or the result of [onFailure] function for the encapsulated [Throwable] exception if it\n     is [failure][Result.isFailure].\n     *^/n\n    * Note, that this function rethrows any [Throwable] exception thrown by

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[onSuccess] or by [onFailure] function.\n *^@InlineOnly\n@SinceKotlin("1.3")\npublic inline fun <R, T>
Result<T>.fold(\n  onSuccess: (value: T) -> R,\n  onFailure: (exception: Throwable) -> R): R {\n  contract
{\n  callsInPlace(onSuccess, InvocationKind.AT_MOST_ONCE)\n  callsInPlace(onFailure,
InvocationKind.AT_MOST_ONCE)\n  }\n  return when (val exception = exceptionOrNull()) {\n  null ->
onSuccess(value as T)\n  else -> onFailure(exception)\n  }\n}\n\n// transformation\n\n/**\n * Returns the
encapsulated result of the given [transform] function applied to the encapsulated value\n * if this instance represents
[success][Result.isSuccess] or the\n * original encapsulated [Throwable] exception if it is
[failure][Result.isFailure].\n * Note, that this function rethrows any [Throwable] exception thrown by
[transform] function.\n * See [mapCatching] for an alternative that encapsulates exceptions.\n
*^@InlineOnly\n@SinceKotlin("1.3")\npublic inline fun <R, T> Result<T>.map(transform: (value: T) -> R):
Result<R> {\n  contract {\n  callsInPlace(transform, InvocationKind.AT_MOST_ONCE)\n  }\n  return when
{\n  isSuccess -> Result.success(transform(value
as T))\n  else -> Result(value)\n  }\n}\n\n/**\n * Returns the encapsulated result of the given [transform]
function applied to the encapsulated value\n * if this instance represents [success][Result.isSuccess] or the\n *
original encapsulated [Throwable] exception if it is [failure][Result.isFailure].\n * This function catches any
[Throwable] exception thrown by [transform] function and encapsulates it as a failure.\n * See [map] for an
alternative that rethrows exceptions from `transform` function.\n *^@InlineOnly\n@SinceKotlin("1.3")\npublic
inline fun <R, T> Result<T>.mapCatching(transform: (value: T) -> R): Result<R> {\n  return when {\n
isSuccess -> runCatching { transform(value as T) }\n  else -> Result(value)\n  }\n}\n\n/**\n * Returns the
encapsulated result of the given [transform] function applied to the encapsulated [Throwable] exception\n * if this
instance represents [failure][Result.isFailure] or the\n * original encapsulated value
if it is [success][Result.isSuccess].\n * Note, that this function rethrows any [Throwable] exception thrown by
[transform] function.\n * See [recoverCatching] for an alternative that encapsulates exceptions.\n
*^@InlineOnly\n@SinceKotlin("1.3")\npublic inline fun <R, T : R> Result<T>.recover(transform: (exception:
Throwable) -> R): Result<R> {\n  contract {\n  callsInPlace(transform, InvocationKind.AT_MOST_ONCE)\n
}\n  return when (val exception = exceptionOrNull()) {\n  null -> this\n  else ->
Result.success(transform(exception))\n  }\n}\n\n/**\n * Returns the encapsulated result of the given [transform]
function applied to the encapsulated [Throwable] exception\n * if this instance represents [failure][Result.isFailure]
or the\n * original encapsulated value if it is [success][Result.isSuccess].\n * This function catches any
[Throwable] exception thrown by [transform] function and encapsulates it as a failure.\n * See [recover] for an
alternative
that rethrows exceptions.\n *^@InlineOnly\n@SinceKotlin("1.3")\npublic inline fun <R, T : R>
Result<T>.recoverCatching(transform: (exception: Throwable) -> R): Result<R> {\n  return when (val exception =
exceptionOrNull()) {\n  null -> this\n  else -> runCatching { transform(exception) }\n  }\n}\n\n/**\n * Performs the given [action] on the encapsulated [Throwable] exception if
this instance represents [failure][Result.isFailure].\n * Returns the original `Result` unchanged.\n
*^@InlineOnly\n@SinceKotlin("1.3")\npublic inline fun <T> Result<T>.onFailure(action: (exception:
Throwable) -> Unit): Result<T> {\n  contract {\n  callsInPlace(action, InvocationKind.AT_MOST_ONCE)\n
}\n  exceptionOrNull()?.let { action(it) }\n  return this\n}\n\n/**\n * Performs the given [action] on the
encapsulated value if this instance represents [success][Result.isSuccess].\n * Returns the original `Result`
unchanged.\n
*^@InlineOnly\n@SinceKotlin("1.3")\npublic inline fun <T> Result<T>.onSuccess(action: (value: T) -> Unit):
Result<T> {\n  contract {\n  callsInPlace(action, InvocationKind.AT_MOST_ONCE)\n  }\n  if (isSuccess)
action(value as T)\n  return this\n}\n\n// -----\n\n"/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n *^@package kotlin.coroutines\nimport kotlin.contracts.*\nimport
kotlin.coroutines.intrinsics.*\nimport kotlin.internal.InlineOnly\n\n/**\n * Interface representing a continuation after
a suspension point that returns a value of type `T`.\n *^@SinceKotlin("1.3")\npublic interface Continuation<in

```

```

T> { \n  /** \n   * The context of the coroutine that corresponds to this continuation. \n   */ \n   public val context:
CoroutineContext \n \n   /** \n   * Resumes the execution of the
corresponding coroutine passing a successful or failed [result] as the \n   * return value of the last suspension
point. \n   */ \n   public fun resumeWith(result: Result<T>) \n \n /** \n * Classes and interfaces marked with this
annotation are restricted when used as receivers for extension \n * `suspend` functions. These `suspend` extensions
can only invoke other member or extension `suspend` functions on this particular \n * receiver and are restricted
from calling arbitrary suspension functions. \n
*/ \n @SinceKotlin("1.3") \n @Target(AnnotationTarget.CLASS) \n @Retention(AnnotationRetention.BINARY) \n pu
blic annotation class RestrictsSuspension \n \n /** \n * Resumes the execution of the corresponding coroutine passing
[value] as the return value of the last suspension point. \n */ \n @SinceKotlin("1.3") \n @InlineOnly \n public inline
fun <T> Continuation<T>.resume(value: T): Unit = \n   resumeWith(Result.success(value)) \n \n /** \n * Resumes the
execution of the corresponding coroutine so that the
[exception] is re-thrown right after the \n * last suspension point. \n
*/ \n @SinceKotlin("1.3") \n @InlineOnly \n public inline fun <T>
Continuation<T>.resumeWithException(exception: Throwable): Unit = \n
resumeWith(Result.failure(exception)) \n \n /** \n * Creates a [Continuation] instance with the given [context] and
implementation of [resumeWith] method. \n */ \n @SinceKotlin("1.3") \n @InlineOnly \n public inline fun <T>
Continuation(\n   context: CoroutineContext, \n   crossinline resumeWith: (Result<T>) -> Unit \n): Continuation<T>
= \n   object : Continuation<T> { \n       override val context: CoroutineContext \n           get() = context \n \n
override fun resumeWith(result: Result<T>) = \n           resumeWith(result) \n   } \n \n /** \n * Creates a coroutine
without a receiver and with result type [T]. \n * This function creates a new, fresh instance of suspendable
computation every time it is invoked. \n * \n * To start executing the created coroutine, invoke `resume(Unit)` on the
returned
[Continuation] instance. \n * The [completion] continuation is invoked when the coroutine completes with a result
or an exception. \n * Subsequent invocation of any resume function on the resulting continuation will produce an
[IllegalStateException]. \n */ \n @SinceKotlin("1.3") \n @Suppress("UNCHECKED_CAST") \n public fun <T>
(suspend () -> T).createCoroutine(\n   completion: Continuation<T> \n): Continuation<Unit> = \n
SafeContinuation(createCoroutineUnintercepted(completion).intercepted(), COROUTINE_SUSPENDED) \n \n /** \n
* Creates a coroutine with receiver type [R] and result type [T]. \n * This function creates a new, fresh instance of
suspendable computation every time it is invoked. \n * \n * To start executing the created coroutine, invoke
`resume(Unit)` on the returned [Continuation] instance. \n * The [completion] continuation is invoked when the
coroutine completes with a result or an exception. \n * Subsequent invocation of any resume function on the resulting
continuation will
produce an [IllegalStateException]. \n */ \n @SinceKotlin("1.3") \n @Suppress("UNCHECKED_CAST") \n public
fun <R, T> (suspend R.() -> T).createCoroutine(\n   receiver: R, \n   completion: Continuation<T> \n):
Continuation<Unit> = \n   SafeContinuation(createCoroutineUnintercepted(receiver, completion).intercepted(),
COROUTINE_SUSPENDED) \n \n /** \n * Starts a coroutine without a receiver and with result type [T]. \n * This
function creates and starts a new, fresh instance of suspendable computation every time it is invoked. \n * The
[completion] continuation is invoked when the coroutine completes with a result or an exception. \n
*/ \n @SinceKotlin("1.3") \n @Suppress("UNCHECKED_CAST") \n public fun <T> (suspend () ->
T).startCoroutine(\n   completion: Continuation<T> \n) { \n
createCoroutineUnintercepted(completion).intercepted().resume(Unit) \n } \n \n /** \n * Starts a coroutine with receiver
type [R] and result type [T]. \n * This function creates and starts a new, fresh instance of suspendable
computation every time it is invoked. \n * The [completion] continuation is invoked when the coroutine completes
with a result or an exception. \n */ \n @SinceKotlin("1.3") \n @Suppress("UNCHECKED_CAST") \n public fun <R,
T> (suspend R.() -> T).startCoroutine(\n   receiver: R, \n   completion: Continuation<T> \n) { \n
createCoroutineUnintercepted(receiver, completion).intercepted().resume(Unit) \n } \n \n /** \n * Obtains the current
continuation instance inside suspend functions and suspends \n * the currently running coroutine. \n * \n * In this

```

function both [Continuation.resume] and [Continuation.resumeWithException] can be used either synchronously in the same stack-frame where the suspension function is run or asynchronously later in the same thread or from a different thread of execution. Subsequent invocation of any resume function will produce an [IllegalStateException].

```

@SinceKotlin("1.3")@InlineOnly
public suspend inline fun <T>
suspendCoroutine(crossinline block: (Continuation<T>)
-> Unit): T {
    contract { callsInPlace(block, InvocationKind.EXACTLY_ONCE) }
    return
suspendCoroutineUninterceptedOrReturn { c: Continuation<T> ->
    val safe =
SafeContinuation(c.intercepted())
    block(safe)
    safe.getOrThrow()
}
}

```

\* Returns the context of the current coroutine.

```

@SinceKotlin("1.3")@Suppress("WRONG_MODIFIER_TARGET")@InlineOnly
public suspend inline
val coroutineContext: CoroutineContext
get() {
    throw NotImplementedError("Implemented as
intrinsic")
}

```

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```

package kotlin.coroutines.intrinsics
import kotlin.coroutines.*
import kotlin.internal.InlineOnly

```

\* Starts an unintercepted coroutine without a receiver and with result type [T] and executes it until its first suspension. \* Returns the result of the coroutine or throws its exception if it does not suspend or [COROUTINE\_SUSPENDED] if it suspends. \* In the latter case, the [completion] continuation is invoked when the coroutine completes with a result or an exception. \* The coroutine is started directly in the invoker's thread without going through the [ContinuationInterceptor] that might be present in the completion's [CoroutineContext]. It is the invoker's responsibility to ensure that a proper invocation context is established. \* This function is designed to be used from inside of [suspendCoroutineUninterceptedOrReturn] to resume the execution of the suspended coroutine using a reference to the suspending function.

```

@SinceKotlin("1.3")@InlineOnly
public actual inline fun <T> (suspend () ->
T).startCoroutineUninterceptedOrReturn(
completion: Continuation<T>): Any? =
this.asDynamic()(completion, false)

```

\* Starts an unintercepted coroutine with receiver type [R] and result type [T] and executes it until its first suspension. \* Returns the result of the coroutine or throws its exception if it does not suspend or [COROUTINE\_SUSPENDED] if it suspends. \* In the latter case, the [completion] continuation is invoked when the coroutine completes with a result or an exception. \* The coroutine is started directly in the invoker's thread without going through the [ContinuationInterceptor] that might be present in the completion's [CoroutineContext]. It is the invoker's responsibility to ensure that a proper invocation context is established. \* This function is designed to be used from inside of [suspendCoroutineUninterceptedOrReturn] to resume the execution of the suspended coroutine using a reference to the suspending function.

```

@SinceKotlin("1.3")@InlineOnly
public actual inline fun <R, T> (suspend
R.() -> T).startCoroutineUninterceptedOrReturn(
receiver: R,
completion: Continuation<T>):
Any? = this.asDynamic()(receiver, completion, false)

```

```

@InlineOnly
internal actual inline fun <R, P, T>
(suspend R.(P) -> T).startCoroutineUninterceptedOrReturn(
receiver: R,
param: P,
completion:
Continuation<T>): Any? = this.asDynamic()(receiver, param, completion, false)

```

\* Creates unintercepted coroutine without receiver and with result type [T]. \* This function creates a new, fresh instance of suspendable computation every time it is invoked. \* To start executing the created coroutine, invoke `resume(Unit)` on the returned [Continuation] instance. \* The [completion] continuation is invoked when coroutine completes with result or exception. \* This function returns unintercepted continuation. \* Invocation of `resume(Unit)` starts coroutine immediately in the invoker's call stack without going through the [ContinuationInterceptor] that might be present in the completion's [CoroutineContext]. \* It is the invoker's responsibility to ensure that a proper invocation context is established. \* Note that [completion] of this function may get invoked in an arbitrary context. \* [Continuation.intercepted] can be used to acquire the intercepted continuation. \* Invocation of `resume(Unit)` on intercepted continuation guarantees that execution of both the coroutine and [completion] happens in the invocation context established by [ContinuationInterceptor]. \* Repeated invocation of any resume function on the resulting continuation corrupts the state machine of the

```

coroutine and may result in arbitrary behaviour or exception.\n *\n@SinceKotlin("1.3")\npublic actual fun <T>
(suspend () -> T).createCoroutineUnintercepted(\n completion: Continuation<T>\n): Continuation<Unit> =\n //
Kotlin/JS suspend lambdas have an extra parameter `suspended`\n if (this.asDynamic().length == 2) {\n //
When `suspended` is true the continuation is created, but not executed\n this.asDynamic()(completion,
true)\n } else {\n createCoroutineFromSuspendFunction(completion) {\n
this.asDynamic()(completion)\n } }\n\n**\n * Creates unintercepted coroutine with receiver type [R] and
result type [T].\n * This function creates a new, fresh instance of suspendable computation every time it is
invoked.\n *\n * To start executing the created coroutine, invoke `resume(Unit)` on the returned [Continuation]
instance.\n * The [completion] continuation is invoked when coroutine completes with result or exception.\n *\n * This function returns unintercepted continuation.\n * Invocation of `resume(Unit)` starts coroutine immediately in
the invoker's call stack without going through the\n * [ContinuationInterceptor] that might be present in the
completion's [CoroutineContext].\n * It is the invoker's responsibility to ensure that a proper invocation context is
established.\n * Note that [completion] of this function may get invoked in an arbitrary context.\n
*\n * [Continuation.intercepted] can be used to acquire the intercepted continuation.\n * Invocation of
`resume(Unit)` on intercepted continuation guarantees that execution of\n * both the coroutine and [completion]
happens in the invocation context established by\n * [ContinuationInterceptor].\n *\n * Repeated invocation of any
resume function on the resulting continuation corrupts the\n * state machine of the coroutine and may result in
arbitrary behaviour or exception.\n *\n@SinceKotlin("1.3")\npublic actual fun <R, T> (suspend R.() ->
T).createCoroutineUnintercepted(\n receiver: R,\n completion: Continuation<T>\n): Continuation<Unit> =\n //
Kotlin/JS suspend lambdas have an extra parameter `suspended`\n if (this.asDynamic().length == 3) {\n //
When `suspended` is true the continuation is created, but not executed\n this.asDynamic()(receiver, completion,
true)\n } else {\n createCoroutineFromSuspendFunction(completion) {\n
this.asDynamic()(receiver, completion)\n } }\n\n**\n * Intercepts this continuation with
[ContinuationInterceptor].\n *\n * This function shall be used on the immediate result of
[createCoroutineUnintercepted] or [suspendCoroutineUninterceptedOrReturn],\n * in which case it checks for
[ContinuationInterceptor] in the continuation's [context][Continuation.context],\n * invokes
[ContinuationInterceptor.interceptContinuation], caches and returns the result.\n *\n * If this function is invoked on
other [Continuation] instances it returns `this` continuation unchanged.\n *\n@SinceKotlin("1.3")\npublic actual
fun <T> Continuation<T>.intercepted(): Continuation<T> =\n (this as? CoroutineImpl)?.intercepted() ?:
this\n\nprivate inline fun <T> createCoroutineFromSuspendFunction(\n completion: Continuation<T>,\n
crossinline block: () -> Any?\n): Continuation<Unit> {\n @Suppress("UNCHECKED_CAST")\n return object
: CoroutineImpl(completion as Continuation<Any?>) {\n
override fun doResume(): Any? {\n exception?.let { throw it }\n return block()\n }\n
}\n\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of
this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\n@package kotlin.js\n// Mirrors signature from JS IR BE\n// Used for
js.translator/testData/box/number/mulInt32.kt\n@library\n@jsName("imulEmulated")\n@Suppress("UNUSED_P
ARAMETER")\ninternal fun imul(x: Int, y: Int): Int =
definedExternally\n\n@Suppress("NOTHING_TO_INLINE")\ninternal inline fun isArrayish(o: dynamic) =
js("Kotlin").isArrayish(o)\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n *\n@package kotlin\n// NOTE: Do not author your exceptions as they are written
in this file, instead use this template:\n *\npublic open class MyException : Exception {\n constructor() :
super()\n constructor(message: String?) : super(message)\n constructor(message: String?, cause: Throwable?) :
super(message, cause)\n constructor(cause: Throwable?) : super(cause)\n}\n*\n\n// TODO: remove primary
constructors, make all secondary\nKT-22055\n\n@Suppress("USELESS_ELVIS_RIGHT_IS_NULL")\npublic
actual open class Error actual constructor(message: String?, cause: Throwable?) : Throwable(message, cause ?: null)
{\n actual constructor() : this(null, null)\n actual constructor(message: String?) : this(message, null)\n
actual

```



```

*^@SinceKotlin("1.2")\npublic actual fun Double.withSign(sign: Double): Double {\n    val thisSignBit =
js("Kotlin").doubleSignBit(this).unsafeCast<Int>()\n    val newSignBit =
js("Kotlin").doubleSignBit(sign).unsafeCast<Int>()\n    return if (thisSignBit == newSignBit) this else -
this\n},"/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of
this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n *^@n\npackage kotlin\n\n/**\n *
Returns a bit representation of the specified floating-point value as [Long]\n * according to the IEEE 754 floating-
point \"double format\" bit layout.\n *^@n\n@SinceKotlin("1.2")\n@library("doubleToBits")\npublic actual fun
Double.toBits(): Long = definedExternally\n\n/**\n * Returns a bit representation of the specified floating-point
value as [Long]\n * according to the IEEE 754 floating-point \"double format\" bit layout,\n * preserving `NaN`
values exact layout.\n *^@n\n@SinceKotlin("1.2")\n@library("doubleToRawBits")\npublic actual fun
Double.toRawBits(): Long = definedExternally\n\n/**\n * Returns the [Double] value corresponding to a given bit
representation.\n *^@n\n@SinceKotlin("1.2")\n@kotlin.internal.InlineOnly\npublic actual inline fun
Double.Companion.fromBits(bits: Long): Double =
js("Kotlin").doubleFromBits(bits).unsafeCast<Double>()\n\n/**\n * Returns
a bit representation of the specified floating-point value as [Int]\n * according to the IEEE 754 floating-point
\"single format\" bit layout.\n *^@n\n * Note that in Kotlin/JS [Float] range is wider than \"single format\" bit layout can
represent,\n * so some [Float] values may overflow, underflow or loose their accuracy after conversion to bits and
back.\n *^@n\n@SinceKotlin("1.2")\n@library("floatToBits")\npublic actual fun Float.toBits(): Int =
definedExternally\n\n/**\n * Returns a bit representation of the specified floating-point value as [Int]\n * according
to the IEEE 754 floating-point \"single format\" bit layout,\n * preserving `NaN` values exact layout.\n *^@n\n * Note
that in Kotlin/JS [Float] range is wider than \"single format\" bit layout can represent,\n * so some [Float] values
may overflow, underflow or loose their accuracy after conversion to bits and back.\n
*^@n\n@SinceKotlin("1.2")\n@library("floatToRawBits")\npublic actual fun Float.toRawBits(): Int =
definedExternally\n\n/**\n * Returns the [Float] value corresponding to a given bit representation.\n
*^@n\n@SinceKotlin("1.2")\n@kotlin.internal.InlineOnly\npublic actual inline fun Float.Companion.fromBits(bits:
Int): Float =
js("Kotlin").floatFromBits(bits).unsafeCast<Float>()\n\n@Suppress("NOTHING_TO_INLINE")\ninternal
inline fun Long(low: Int, high: Int) = js("Kotlin").Long.fromBits(low, high).unsafeCast<Long>()\ninternal inline
val Long.low: Int get() = this.asDynamic().getLowBits().unsafeCast<Int>()\ninternal inline val Long.high: Int get()
= this.asDynamic().getHighBits().unsafeCast<Int>()\n"},"/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n *^@n\nimport kotlin.reflect.KClass\n\n@PublishedApi\ninternal fun <T :
Annotation> KClass<*>.findAssociatedObject(@Suppress("UNUSED_PARAMETER") annotationClass:
KClass<T>): Any?
{\n    // This API is not supported in js-v1. Return `null` to be source-compatible with js-ir.\n    return
null\n}\n"},"/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of
this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*^@n\npackage kotlin.text\n\n/**\n * Returns a string representation of this [Long] value in the specified [radix].\n
*\n * @throws IllegalArgumentException when [radix] is not a valid radix for number to string conversion.\n
*^@n\n@SinceKotlin("1.2")\npublic actual fun Long.toString(radix: Int): String =
asDynamic().toString(checkRadix(radix))\n"},"/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n *^@n\npackage
kotlin.js\n\n@PublishedApi\n@Suppress("NOTHING_TO_INLINE")\n@JsPolyfill("\n\n")\nif (typeof
Array.prototype.fill

```







```

String, fromBase64: IntArray, resultLength: Int): IntArray {\n    val result = IntArray(resultLength)\n    var index = 0\n    var int = 0\n    var shift = 0\n    for (char in base64) {\n        val sixBit = fromBase64[char.code]\n        int = int or ((sixBit and 0x1f) shl shift)\n        if (sixBit < 0x20) {\n            result[index++] = int\n            int = 0\n            shift = 0\n        } else {\n            shift += 5\n        }\n    }\n    return result\n}\n\n"/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n/\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\nimport kotlin.js.*\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Reverses elements in the list in-place.\n */\npublic actual fun <T> MutableList<T>.reverse(): Unit {\n    val midPoint = (size / 2) - 1\n    if (midPoint < 0) return\n    var reverseIndex = lastIndex\n    for (index in 0..midPoint) {\n        val tmp = this[index]\n        this[index] = this[reverseIndex]\n        this[reverseIndex] = tmp\n    }\n}\n\n"/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\n// 37 ranges totally\nprivate object Digit {\n    internal val rangeStart = intArrayOf(\n        0x0030, 0x0660, 0x06f0, 0x07c0, 0x0966, 0x09e6, 0x0a66, 0x0ae6, 0x0b66, 0x0be6, 0x0c66, 0x0ce6, 0x0d66, 0x0de6, 0x0e50, 0x0ed0, 0x0f20, 0x1040, 0x1090, 0x17e0, 0x1810, 0x1946, 0x19d0, 0x1a80, 0x1a90, 0x1b50, 0x1bb0, 0x1c40, 0x1c50, 0xa620, 0xa8d0, 0xa900, 0xa9d0, 0xa9f0, 0xaa50, 0xabf0, 0xff10, )\n}\n\n/**\n * Returns the index of the largest element in [array] smaller or equal to the specified [needle],\n * or -1 if [needle] is smaller than the smallest element in [array].\n */\ninternal fun binarySearchRange(array: IntArray, needle: Int): Int {\n    var bottom = 0\n    var top = array.size - 1\n    var middle = -1\n    var value = 0\n    while (bottom <= top) {\n        middle = (bottom + top) / 2\n        value = array[middle]\n        if (needle > value)\n            bottom = middle + 1\n        else if (needle == value)\n            return middle\n        else\n            top = middle - 1\n    }\n    return middle - (if (needle < value) 1 else 0)\n}\n\n/**\n * Returns an integer from 0..9 indicating the digit this character represents,\n * or -1 if this character is not a digit.\n */\ninternal fun Char.digitToIntImpl(): Int {\n    val ch = this.code\n    val index = binarySearchRange(Digit.rangeStart, ch)\n    val diff = ch - Digit.rangeStart[index]\n    return if (diff < 10) diff else -1\n}\n\n/**\n * Returns `true` if this character is a digit.\n */\ninternal fun Char.isDigitImpl(): Boolean {\n    return digitToIntImpl() >= 0\n}\n\n"/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\n// 222 ranges totally\nprivate object Letter {\n    val decodedRangeStart: IntArray\n    val decodedRangeLength: IntArray\n    val decodedRangeCategory: IntArray\n}\n\ninit {\n    val toBase64 =\n        \"ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz0123456789+/\n\n    val fromBase64 = IntArray(128)\n    for (i in toBase64.indices) {\n        fromBase64[toBase64[i].code] = i\n    }\n\n    // rangeStartDiff.length = 356\n    val rangeStartDiff =\n        =\n        \"hCgBpCQGYHZH5BRpBPPPPPRMP5BPPICPP6BkEPPPPcXPzBvBrB3BOiDoBHwD+E3DauCnFmBmB2D6E1BIBTiBmBIBP5BhBiBrBvBjBqBnBPRtBiCmCtBIB0BmB5BiB7BmBgEmChBzGCoEoGVpBSfRhBPqKQ2BwBYoFgB4CJuTiEvBuCuDrF5DgEgFIJ1DgFmBQtBsBRGsb+BPiBID1EIJdPRPPPPPPPPPGQSQS/DxENVNU+B9zCwBwBPPcKDPNnBPqDYY1R8B7FkFgTgwGwUwmBgKwBuBScmEP/BPPPPPrBP8B7F1B/ErBqC6B7BiBmBfQsBUwCw/KwqIwLwETPcPjQgJxFgBIBsD\n\n    val diff = decodeVarLenBase64(rangeStartDiff, fromBase64, 222)\n    val start = IntArray(diff.size)\n    for (i in diff.indices) {\n        if (i == 0) start[i] = diff[i]\n        else start[i] = start[i - 1] + diff[i]\n    }\n    decodedRangeStart = start\n\n    // rangeLength.length = 328\n    val rangeLength =

```



Programming Language contributors.\n \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n \*^n\npackage kotlin.text\n\n/\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n// See:

THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:

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Open Source Used In AppDynamics\\\\\\\\\\\\\\\\\\\_OTIS\\\\\\\\\\\\\\\\\\\_Pipeline 23.8.3 2829\\\\\\\\\\\\\\\\\]\\\\\\\\\\\\\\\\\(https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n/\n\nimport kotlin.js.\\\\\\\\\\\\\\\\\*\n\n/\\\\\\\\\\\\\\\\\*\\\\\\\\\\\\\\\\\*\n \\\\\\\\\\\\\\\\\* Returns a character at the given \\\\\\\\\\\\\\\\\[index\\\\\\\\\\\\\\\\\] or throws an \\\\\\\\\\\\\\\\\[IndexOutOfBoundsException\\\\\\\\\\\\\\\\\] if the \\\\\\\\\\\\\\\\\[index\\\\\\\\\\\\\\\\\] is out of bounds of this char sequence.\n \\\\\\\\\\\\\\\\\* \n \\\\\\\\\\\\\\\\\* @sample samples.collections.Collections.Elements.elementAt\n \\\\\\\\\\\\\\\\\*/\npublic actual fun CharSequence.elementAt\\\\\\\\\\\\\\\\\(index: Int\\\\\\\\\\\\\\\\\): Char {\n return elementAtOrElse\\\\\\\\\\\\\\\\\(index\\\\\\\\\\\\\\\\\) { throw</a></p></div><div data-bbox=\\\\\\\\\\\\\\\\\)\\\\\\\\\\\\\\\\]\\\\\\\\\\\\\\\\(https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n/\n\nimport 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samples.collections.Collections.Elements.elementAt\n \\\\\\\\\\\*/\npublic actual fun CharSequence.elementAt\\\\\\\\\\\(index: Int\\\\\\\\\\\): Char {\n return elementAtOrElse\\\\\\\\\\\(index\\\\\\\\\\\) { throw</a></p></div><div data-bbox=\\\\\\\\\\\)\\\\\\\\\\]\\\\\\\\\\(https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n/\n\nimport kotlin.js.\\\\\\\\\\*\n\n/\\\\\\\\\\*\\\\\\\\\\*\n \\\\\\\\\\* Returns a character at the given \\\\\\\\\\[index\\\\\\\\\\] or throws an \\\\\\\\\\[IndexOutOfBoundsException\\\\\\\\\\] if the \\\\\\\\\\[index\\\\\\\\\\] is out of bounds of this char sequence.\n \\\\\\\\\\* \n \\\\\\\\\\* @sample samples.collections.Collections.Elements.elementAt\n \\\\\\\\\\*/\npublic actual fun CharSequence.elementAt\\\\\\\\\\(index: Int\\\\\\\\\\): Char {\n return elementAtOrElse\\\\\\\\\\(index\\\\\\\\\\) { throw</a></p></div><div data-bbox=\\\\\\\\\\)\\\\\\\\\]\\\\\\\\\(https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n/\n\nimport 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elementAtOrElse\\(index\\) { throw</a></p></div><div data-bbox=\\)\]\(https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n/\n\nimport kotlin.js.\*\n\n/\*\*\n \* Returns a character at the given \[index\] or throws an \[IndexOutOfBoundsException\] if the \[index\] is out of bounds of this char sequence.\n \* \n \* @sample samples.collections.Collections.Elements.elementAt\n \*/\npublic actual fun CharSequence.elementAt\(index: Int\): Char {\n return elementAtOrElse\(index\) { throw</a></p></div><div data-bbox=\)](https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n/\n\nimport kotlin.js.*\n\n/**\n * Returns a character at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this char sequence.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic actual fun</a></p></div><div data-bbox=)

```

isEmpty(): Boolean = this@asList.isEmpty()\n    override fun contains(element: UInt): Boolean =
this@asList.contains(element)\n    override fun get(index: Int): UInt {\n
AbstractList.checkElementIndex(index, size)\n    return this@asList[index]\n    }\n    override fun
indexOf(element: UInt): Int {\n    @Suppress("USELESS_CAST")\n    if ((element as Any?) !is UInt)
return -1\n    return this@asList.indexOf(element)\n    }\n    override fun lastIndexOf(element: UInt): Int
{\n    @Suppress("USELESS_CAST")\n    if ((element as Any?) !is UInt) return -1\n    return
this@asList.lastIndexOf(element)\n    }\n    }\n}\n\n/**\n * Returns a [List] that wraps the original array.\n
*\n * \n @SinceKotlin("1.3")\n @ExperimentalUnsignedTypes\n public actual fun ULongArray.asList(): List<ULong>
{\n    return object : AbstractList<ULong>(), RandomAccess {\n    override val size: Int get() = this@asList.size\n
    override fun isEmpty(): Boolean = this@asList.isEmpty()\n    override fun contains(element: ULong):
Boolean = this@asList.contains(element)\n    override fun get(index: Int): ULong {\n
AbstractList.checkElementIndex(index, size)\n    return this@asList[index]\n    }\n    override fun
indexOf(element: ULong): Int {\n    @Suppress("USELESS_CAST")\n    if ((element as Any?) !is
ULong) return -1\n    return this@asList.indexOf(element)\n    }\n    override fun lastIndexOf(element:
ULong): Int {\n    @Suppress("USELESS_CAST")\n    if ((element as Any?) !is ULong) return -1\n
return this@asList.lastIndexOf(element)\n    }\n    }\n}\n\n/**\n * Returns a [List] that wraps the original
array.\n * \n @SinceKotlin("1.3")\n @ExperimentalUnsignedTypes\n public actual fun UByteArray.asList():
List<UByte> {\n    return object : AbstractList<UByte>(), RandomAccess {\n    override val size:
Int get() = this@asList.size\n    override fun isEmpty(): Boolean = this@asList.isEmpty()\n    override fun
contains(element: UByte): Boolean = this@asList.contains(element)\n    override fun get(index: Int): UByte {\n
AbstractList.checkElementIndex(index, size)\n    return this@asList[index]\n    }\n    override fun
indexOf(element: UByte): Int {\n    @Suppress("USELESS_CAST")\n    if ((element as Any?) !is
UByte) return -1\n    return this@asList.indexOf(element)\n    }\n    override fun lastIndexOf(element:
UByte): Int {\n    @Suppress("USELESS_CAST")\n    if ((element as Any?) !is UByte) return -1\n
return this@asList.lastIndexOf(element)\n    }\n    }\n}\n\n/**\n * Returns a [List] that wraps the original array.\n
*\n * \n @SinceKotlin("1.3")\n @ExperimentalUnsignedTypes\n public actual fun UShortArray.asList(): List<UShort>
{\n    return object : AbstractList<UShort>(), RandomAccess
{\n    override val size: Int get() = this@asList.size\n    override fun isEmpty(): Boolean =
this@asList.isEmpty()\n    override fun contains(element: UShort): Boolean = this@asList.contains(element)\n
    override fun get(index: Int): UShort {\n    AbstractList.checkElementIndex(index, size)\n    return
this@asList[index]\n    }\n    override fun indexOf(element: UShort): Int {\n    @Suppress("USELESS_CAST")\n
if ((element as Any?) !is UShort) return -1\n    return
this@asList.indexOf(element)\n    }\n    override fun lastIndexOf(element: UShort): Int {\n    @Suppress("USELESS_CAST")\n
if ((element as Any?) !is UShort) return -1\n    return
this@asList.lastIndexOf(element)\n    }\n    }\n}\n\n"/\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the
license/LICENSE.txt file.\n * \n\npackage kotlin.text\n\n/\n// NOTE: THIS FILE IS AUTO-GENERATED by the
GenerateUnicodeData.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\n/\n// 9 ranges
totally\n/**\n * Returns `true` if this character is a whitespace.\n * \n\ninternal fun Char.isWhitespaceImpl(): Boolean
{\n    val ch = this.code\n    return ch in 0x0009..0x000d\n        || ch in 0x001c..0x0020\n        || ch == 0x00a0\n
        || ch > 0x1000 && (\n            ch == 0x1680\n            || ch in 0x2000..0x200a\n            || ch == 0x2028\n
            || ch == 0x2029\n            || ch == 0x202f\n            || ch == 0x205f\n            || ch == 0x3000\n
)\n}\n\n"/\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this
source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\n\npackage kotlin\n\n\npublic
actual fun interface Comparator<T> {\n    @JsName("compare")\n    public actual fun compare(a: T, b: T):
Int\n}\n\n"/\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of

```

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```
*\n\npackage kotlin.js\n\nimport
```

```
kotlin.annotation.AnnotationTarget.*\n\n@Target(FUNCTION)\n@Deprecated("Use inline extension function with body using dynamic")\npublic annotation class nativeGetter\n\n@Target(FUNCTION)\n@Deprecated("Use inline extension function with body using dynamic")\npublic annotation class
```

```
nativeSetter\n\n@Target(FUNCTION)\n@Deprecated("Use inline extension function with body using
```

```
dynamic")\npublic annotation class nativeInvoke\n\n@Target(CLASS, FUNCTION, PROPERTY)\ninternal
```

```
annotation class library(public val name: String = "")\n\n@Target(CLASS)\ninternal annotation class
```

```
marker\n\n/**\n * Gives a declaration (a function, a property
```

```
or a class) specific name in JavaScript.\n *\n * This may be useful in the following cases:\n *\n * * There are two
```

```
functions for which the compiler gives same name in JavaScript, you can\n *\n * mark one with `@JsName(...)` to
```

```
prevent the compiler from reporting error.\n *\n * * You are writing a JavaScript library in Kotlin. The compiler
```

```
produces mangled names\n *\n * for functions with parameters, which is unnatural for usual JavaScript developer.\n *\n *
```

```
You can put `@JsName(...)` on functions you want to be available from JavaScript.\n *\n * * For some reason you
```

```
want to rename declaration, e.g. there's common term in JavaScript\n *\n * for a concept provided by the declaration,
```

```
which is uncommon in Kotlin.\n *\n * * Example:\n *\n * * ``` kotlin\n *\n * class Person(val name: String) {\n *\n * fun
```

```
hello() {\n *\n * println("Hello $name!")\n *\n * }\n *\n * @JsName("helloWithGreeting")\n *\n * fun
```

```
hello(greeting: String) {\n *\n * println("$greeting $name!")\n *\n * }\n *\n *
```

```
}\n *\n * * `@property name` the name which compiler uses both for declaration itself and for all references to
```

```
the declaration.\n *\n * It's required to denote a valid JavaScript identifier.\n *\n *
```

```
*\n\n@Retention(AnnotationRetention.BINARY)\n@Target(CLASS, FUNCTION, PROPERTY, CONSTRUCTOR,
```

```
PROPERTY_GETTER, PROPERTY_SETTER)\npublic actual annotation class JsName(actual val name:
```

```
String)\n\n/**\n * Denotes an `external` declaration that must be imported from native JavaScript library.\n *\n *
```

```
The compiler produces the code relevant for the target module system, for example, in case of CommonJS,\n *\n * it
```

```
will import the declaration via the `require(...)` function.\n *\n * * The annotation can be used on top-level external
```

```
declarations (classes, properties, functions) and files.\n *\n * In case of file (which can't be `external`) the following rule
```

```
applies: all the declarations in\n *\n * the file must be `external`. By applying `@JsModule(...)` on a file you tell the
```

```
compiler to import a
```

```
JavaScript object\n *\n * that contain all the declarations from the file.\n *\n * * Example:\n *\n * * ``` kotlin\n *\n *
```

```
@JsModule("jquery")\n * external abstract class JQuery() {\n *\n * // some declarations here\n *\n * }\n *\n *
```

```
@JsModule("jquery")\n * external fun JQuery(element: Element): JQuery\n *\n * * `@property import name
```

```
of a module to import declaration from.\n *\n * It is not interpreted by the Kotlin compiler, it's passed as is
```

```
directly to the target module system.\n *\n * * @see JsNonModule\n
```

```
*\n\n@Retention(AnnotationRetention.BINARY)\n@Target(CLASS, PROPERTY, FUNCTION, FILE)\npublic
```

```
annotation class JsModule(val import: String)\n\n/**\n * Denotes an `external` declaration that can be used without
```

```
module system.\n *\n * By default, an `external` declaration is available regardless your target module system.\n *\n *
```

```
However, by applying [JsModule] annotation you can make a declaration unavailable to *plain* module system.\n *\n *
```

```
Some JavaScript libraries are distributed both as
```

```
a standalone downloadable piece of JavaScript and as a module available\n *\n * as an npm package.\n *\n * To tell the
```

```
Kotlin compiler to accept both cases, you can augment [JsModule] with the `@JsNonModule` annotation.\n *\n *
```

```
For example:\n *\n * * ``` kotlin\n *\n * @JsModule("jquery")\n *\n * @JsNonModule\n *\n * @JsName("$")\n *\n * external
```

```
abstract class JQuery() {\n *\n * // some declarations here\n *\n * }\n *\n * * @JsModule("jquery")\n *\n * @JsNonModule\n
```

```
* @JsName("$")\n * external fun JQuery(element: Element): JQuery\n *\n * * `@see JsModule\n
```

```
*\n\n@Retention(AnnotationRetention.BINARY)\n@Target(CLASS, PROPERTY, FUNCTION, FILE)\npublic
```

```
annotation class JsNonModule\n\n/**\n * Adds prefix to `external` declarations in a source file.\n *\n *
```

```
JavaScript does not have concept of packages (namespaces). They are usually emulated by nested objects.\n *\n * The compiler
```

```
turns references to `external` declarations either to plain unprefix names (in case of *plain* modules)\n *\n * or to
```

```
plain imports.\n *\n * However,
```

if a JavaScript library provides its declarations in packages, you won't be satisfied with this. You can tell the compiler to generate additional prefix before references to `external` declarations using the `@JsQualifier(...)` annotation. Note that a file marked with the `@JsQualifier(...)` annotation can't contain non-`external` declarations. Example:

```

@file:JsQualifier("my.jsPackageName") package
some.kotlinPackage external fun foo(x: Int) external fun bar(): String
@property value
the qualifier to add to the declarations in the generated code. It must be a sequence of valid JavaScript
identifiers separated by the `.` character. Examples of valid qualifiers are: `foo`, `bar.Baz`, `_$0.f`
@see JsModule @Retention(AnnotationRetention.BINARY) @Target(AnnotationTarget.FILE) public
annotation class JsQualifier(val value: String) Exports top-level declaration
on JS platform. Compiled module exposes declarations that are marked with this annotation without name
mangling. This annotation can be applied to either files or top-level declarations. It is currently
prohibited to export the following kinds of declarations:
* `expect` declarations
* inline functions with
reified type parameters
* suspend functions
* secondary constructors without `@JsName`
* extension properties
* enum classes
* annotation classes
Signatures of exported declarations must
only contain "exportable" types:
* `dynamic`, `Any`, `String`, `Boolean`, `Byte`, `Short`, `Int`, `Float`,
`Double`
* `BooleanArray`, `ByteArray`, `ShortArray`, `IntArray`, `FloatArray`, `DoubleArray`
* `Array<exportable-type>`
* Function types with exportable parameters and return types
* `external` or
`@JsExport` classes and interfaces
* Nullable counterparts of types above
* Unit return type. Must not be nullable
This annotation is experimental, meaning that restrictions
mentioned above are subject to change.
*/
@ExperimentalJsExport @Retention(AnnotationRetention.BINARY) @Target(CLASS, PROPERTY,
FUNCTION, FILE) @SinceKotlin("1.3") public actual annotation class JsExport Exports top-level
property to be initialized eagerly, opposed to lazily on the first access to file and/or property.
*/
@ExperimentalStdlibApi @Retention(AnnotationRetention.BINARY) @Target(AnnotationTarget.PROPER
TY) @SinceKotlin("1.6") @Deprecated("This annotation is a temporal migration assistance and may be
removed in the future releases, please consider filing an issue about the case where it is needed") public annotation
class EagerInitialization, /* Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors. Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt
file. */
package kotlin.jvm // these are used in common generated code in stdlib // TODO: find how to
deprecate these ones
@Target(AnnotationTarget.FIELD) @Retention(AnnotationRetention.SOURCE) public
actual annotation class Volatile
@Target(AnnotationTarget.FUNCTION,
AnnotationTarget.PROPERTY_GETTER,
AnnotationTarget.PROPERTY_SETTER) @Retention(AnnotationRetention.SOURCE) public actual annotation
class Synchronized, /* Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language
contributors. Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file. */
package kotlin.collections // Provides a skeletal implementation of the
[MutableCollection] interface.
@param E the type of elements contained in the collection. The collection is
invariant in its element type.
public actual abstract class AbstractMutableCollection<E> protected actual
constructor() : AbstractCollection<E>(),
MutableCollection<E> {
    actual abstract override fun add(element: E): Boolean
    actual override fun
remove(element: E): Boolean {
        checkIsMutable()
        val iterator = iterator()
        while
(iterator.hasNext()) {
            if (iterator.next() == element) {
                iterator.remove()
                return true
            }
        }
        return false
    }
    actual override fun addAll(elements: Collection<E>): Boolean {
        checkIsMutable()
        var modified = false
        for (element in elements) {
            if (add(element)) modified =
true
        }
        return modified
    }
    actual override fun removeAll(elements: Collection<E>): Boolean {
        checkIsMutable()
        return (this as MutableIterable<E>).removeAll { it in elements }
    }
    actual
override fun retainAll(elements: Collection<E>): Boolean {
        checkIsMutable()
        return (this as

```



```

MutableIterable<E>).removeAll
    { it !in elements }
}

actual override fun clear(): Unit {
    checkIsMutable()
    val iterator =
this.iterator()
    while (iterator.hasNext()) {
        iterator.next()
        iterator.remove()
    }
}

@Deprecated("Provided so that subclasses inherit this function", level = DeprecationLevel.HIDDEN)
@JsName("toJSON")
protected fun toJSON(): Any = this.toArray()

/**
 * This method is called
every time when a mutating method is called on this mutable collection.
 * Mutable collections that are built
(frozen) must throw `UnsupportedOperationException`.
 */
internal open fun checkIsMutable(): Unit {
}

}

/**
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this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.
 */

/**
 * Based on GWT AbstractList
 * Copyright 2007 Google
Inc.
 */

package kotlin.collections

/**
 * Provides a skeletal implementation of the [MutableList]
interface.
 */
@param E the type of elements contained in the list. The list is invariant in its element type.

public actual abstract class AbstractMutableList<E> protected actual constructor() :
AbstractMutableCollection<E>(), MutableList<E> {
    protected var modCount: Int = 0

    abstract override fun
add(index: Int, element: E): Unit
    abstract override fun removeAt(index: Int): E
    abstract override fun
set(index: Int, element: E): E

    /**
     * Adds the specified element to the end of this list.
     */
    @return
`true` because the list is always modified as the result of this operation.

    actual override fun add(element:
E): Boolean {
        checkIsMutable()
        add(size, element)
        return true
    }

    actual override fun
addAll(index: Int, elements: Collection<E>): Boolean {
        AbstractList.checkPositionIndex(index,
size)
        checkIsMutable()
        var _index = index
        var changed = false
        for (e in elements) {
            add(_index++, e)
            changed = true
        }
        return changed
    }

    actual override fun clear() {
        checkIsMutable()
        removeRange(0, size)
    }

    actual override fun removeAll(elements:
Collection<E>): Boolean {
        checkIsMutable()
        return removeAll { it in elements }
    }

    actual
override fun retainAll(elements: Collection<E>): Boolean {
        checkIsMutable()
        return removeAll { it !in
elements }
    }

    actual override fun iterator(): MutableIterator<E> = IteratorImpl()

    actual override fun
contains(element: E): Boolean = indexOf(element) >= 0

    actual override fun indexOf(element: E): Int {
        for (index in 0..lastIndex) {
            if (get(index) == element) {
                return index
            }
        }
        return -1
    }

    actual override fun lastIndexOf(element: E): Int {
        for (index in lastIndex downTo 0) {
            if (get(index) == element) {
                return index
            }
        }
        return -1
    }

    actual
override fun listIterator(): MutableListIterator<E> = listIterator(0)

    actual override fun listIterator(index: Int):
MutableListIterator<E> = ListIteratorImpl(index)

    actual override fun subList(fromIndex: Int, toIndex: Int):
MutableList<E> = SubList(this, fromIndex, toIndex)

    /**
     * Removes the range of elements from this list
starting from [fromIndex] and ending with but not including [toIndex].
     */
    protected open fun
removeRange(fromIndex: Int, toIndex: Int) {
        val iterator = listIterator(fromIndex)
        repeat(toIndex -
fromIndex) {
            iterator.next()
            iterator.remove()
        }
    }

    /**
     * Compares this list with
another list instance with the ordered
structural equality.
     */
    @return true, if [other] instance is a [List] of the same size, which contains the
same elements in the same order.

    override fun equals(other: Any?): Boolean {
        if (other === this)
return true
        if (other !is List<*>) return false
        return AbstractList.orderedEquals(this, other)
    }

    /**
     * Returns the hash code value for this list.
     */
    override fun hashCode(): Int =
AbstractList.orderedHashCode(this)

    private open inner class IteratorImpl : MutableIterator<E> {
        /**
         * the index of the item that will be returned on the next call to [next]()
         */
        protected var index = 0

        /**
         * the index of the item that was returned on the previous call to [next]()
         */
        * or [ListIterator.previous]() (for
`ListIterator`),
        * -1 if no such item exists

        protected var last = -1

        override fun
hasNext(): Boolean = index < size

        override fun next(): E {
            if (!hasNext()) throw NoSuchElementException()
            last = index++
            return get(last)
        }

        override fun remove() {
            check(last != -1) { "Call next() or previous()
before removing element from the iterator." }
            removeAt(last)
            index = last
            last = -1
        }
    }
}

```



```

MutableIterator<K> {\n                val entryIterator = entries.iterator()\n                return object :\nMutableIterator<K> {\n                override fun hasNext(): Boolean = entryIterator.hasNext()\n\n                override fun next(): K = entryIterator.next().key\n                override fun remove() =\nentryIterator.remove()\n                }\n                }\n                override fun remove(element: K): Boolean\n{\n                checkIsMutable()\n                if (containsKey(element)) {\nthis@AbstractMutableMap.remove(element)\n                return true\n                }\n                return\nfalse\n                }\n                override val size: Int get() = this@AbstractMutableMap.size\n                override fun checkIsMutable(): Unit = this@AbstractMutableMap.checkIsMutable()\n                }\n                }\n                return _keys!!\n                }\n                actual abstract override fun put(key: K, value: V): V?\n                actual override fun\nputAll(from: Map<out K, V>) {\n                checkIsMutable()\n                for ((key, value) in from) {\n                put(key,\nvalue)\n                }\n                }\n                private var _values: MutableCollection<V>? = null\n                actual override val values:\nMutableCollection<V>\n                get() {\n                if (_values == null) {\n                _values = object :\nAbstractMutableCollection<V>()\n                override fun add(element: V): Boolean = throw\nUnsupportedOperationException("Add is not supported on values")\n                override fun clear() =\nthis@AbstractMutableMap.clear()\n                override operator fun contains(element: V): Boolean =\ncontainsValue(element)\n                override operator fun iterator(): MutableIterator<V> {\n                val\nentryIterator = entries.iterator()\n                return object : MutableIterator<V> {\n                override fun\nhasNext(): Boolean = entryIterator.hasNext()\n                override fun next(): V = entryIterator.next().value\n                override fun remove() = entryIterator.remove()\n                }\n                }\n                }\n                override val size: Int get() = this@AbstractMutableMap.size\n                override fun checkIsMutable(): Unit = this@AbstractMutableMap.checkIsMutable()\n                }\n                }\n                return _values!!\n                }\n                actual override fun remove(key: K): V? {\n                checkIsMutable()\nval iter = entries.iterator()\n                while (iter.hasNext()) {\n                val entry = iter.next()\n                val k = entry.key\n                if (key == k) {\n                val value = entry.value\n                iter.remove()\n                return value\n                }\n                }\n                return null\n                }\n                /**\n                * This method is called every time when a mutating method is called on\nthis mutable map.\n                * Mutable maps that are built (frozen) must throw `UnsupportedOperationException`.\n                */\n                internal open fun checkIsMutable(): Unit {\n                }\n                }\n                /*\n                * Copyright\n                2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n                * Use of this source code is governed\n                by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n                */\n                package\n                kotlin.collections\n                /**\n                * Provides a skeletal implementation of the [MutableSet] interface.\n                */\n                @param E the\n                type of elements contained in the set. The set is invariant in its element type.\n                */\n                public actual abstract class\n                AbstractMutableSet<E> protected actual constructor() : AbstractMutableCollection<E>(), MutableSet<E> {\n                }\n                /**\n                * Compares this set with another set instance with the unordered structural equality.\n                */\n                * @return\n                `true`, if [other] instance is a [Set] of the same size, all elements of which are contained in this set.\n                */\n                override fun equals(other: Any?): Boolean {\n                if (other === this) return true\n                if (other !is Set<*>) return\nfalse\n                return AbstractSet.setEquals(this, other)\n                }\n                /**\n                * Returns\n                the hash code value for this set.\n                */\n                override fun hashCode(): Int =\n                AbstractSet.unorderedHashCode(this)\n                }\n                }\n                /*\n                * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming\n                Language contributors.\n                * Use of this source code is governed by the Apache 2.0 license that can be found in the\n                license/LICENSE.txt file.\n                */\n                package\n                kotlin.collections\n                /**\n                * Provides a [MutableList] implementation,\n                which uses a resizable array as its backing storage.\n                */\n                * This implementation doesn't provide a way to manage\n                capacity, as backing JS array is resizeable itself.\n                * There is no speed advantage to pre-allocating array sizes in\n                JavaScript, so this implementation does not include any of the\n                * capacity and "growth increment" concepts.\n                */\n                public actual open class ArrayList<E> internal constructor(private var array: Array<Any?>) :\n                AbstractMutableList<E>(), MutableList<E>, RandomAccess {\n                private var isReadOnly: Boolean = false\n                }\n                /**\n                * Creates an empty [ArrayList].\n                */\n
```

```

    */\n    public actual constructor() : this(emptyArray()) {} \n\n    /**\n     * Creates an empty [ArrayList].\n     */\n    @param initialCapacity initial capacity (ignored)\n    */\n    public actual constructor(initialCapacity: Int) :\n    this(emptyArray()) {} \n\n    /**\n     * Creates an [ArrayList] filled from the [elements] collection.\n     */\n    public\n    actual constructor(elements: Collection<E>) : this(elements.toArray<Any?>()) {} \n\n    @PublishedApi\n    internal fun build(): List<E> {\n        checkIsMutable()\n        isReadOnly = true\n        return this\n    } \n\n    /**\n     Does nothing in this ArrayList implementation.\n     */\n    public actual fun trimToSize() {} \n\n    /** Does nothing in\n    this ArrayList implementation.\n     */\n    public actual fun ensureCapacity(minCapacity: Int) {} \n\n    actual override\n    val size: Int get() = array.size\n    @Suppress("UNCHECKED_CAST")\n    actual override fun get(index: Int): E =\n    array[rangeCheck(index)] as E\n    actual override\n    fun set(index: Int, element: E): E {\n        checkIsMutable()\n        rangeCheck(index)\n        @Suppress("UNCHECKED_CAST")\n        return array[index].apply { array[index] = element } as E\n    } \n\n    actual override fun add(element: E): Boolean {\n        checkIsMutable()\n        array.asDynamic().push(element)\n        modCount++\n        return true\n    } \n\n    actual override fun add(index: Int, element: E): Unit {\n        checkIsMutable()\n        array.asDynamic().splice(insertionRangeCheck(index), 0, element)\n        modCount++\n    } \n\n    actual override fun addAll(elements: Collection<E>): Boolean {\n        checkIsMutable()\n        if\n        (elements.isEmpty()) return false\n        array += elements.toArray<Any?>()\n        modCount++\n        return true\n    } \n\n    actual override fun addAll(index: Int, elements: Collection<E>): Boolean {\n        checkIsMutable()\n        insertionRangeCheck(index)\n        if (index == size) return addAll(elements)\n        if (elements.isEmpty()) return false\n        when (index) {\n            size -> return addAll(elements)\n            0 ->\n            array = elements.toArray<Any?>() + array\n            else -> array = array.copyOfRange(0,\n            index).asDynamic().concat(elements.toArray<Any?>(), array.copyOfRange(index, size))\n        } \n\n        modCount++\n        return true\n    } \n\n    actual override fun removeAt(index: Int): E {\n        checkIsMutable()\n        rangeCheck(index)\n        modCount++\n        return if (index == lastIndex)\n            array.asDynamic().pop()\n        else\n            array.asDynamic().splice(index, 1)[0]\n    } \n\n    actual override fun remove(element: E): Boolean {\n        checkIsMutable()\n        for (index in array.indices) {\n            if (array[index] == element) {\n                array.asDynamic().splice(index, 1)\n                modCount++\n                return true\n            }\n        }\n        return\n        false\n    } \n\n    override\n    fun removeRange(fromIndex: Int, toIndex: Int) {\n        checkIsMutable()\n        modCount++\n        array.asDynamic().splice(fromIndex, toIndex - fromIndex)\n    } \n\n    actual override fun clear() {\n        checkIsMutable()\n        array = emptyArray()\n        modCount++\n    } \n\n    actual override fun\n    indexOf(element: E): Int = array.indexOf(element)\n    actual override fun lastIndexOf(element: E): Int =\n    array.lastIndexOf(element)\n    override fun toString() = arrayToString(array)\n\n    @Suppress("UNCHECKED_CAST")\n    override fun <T> toArray(array: Array<T>): Array<T> {\n        if\n        (array.size < size) {\n            return toArray() as Array<T>\n        }\n        (this.array as\n        Array<T>).copyInto(array)\n        if (array.size > size) {\n            array[size] = null as T // null-terminate\n        }\n        return array\n    } \n\n    override fun toArray(): Array<Any?> {\n        return js("[]").slice.call(array)\n    } \n\n    internal override\n    fun checkIsMutable() {\n        if (isReadOnly) throw UnsupportedOperationException()\n    } \n\n    private fun\n    rangeCheck(index: Int) = index.apply {\n        AbstractList.checkElementIndex(index, size)\n    } \n\n    private fun\n    insertionRangeCheck(index: Int) = index.apply {\n        AbstractList.checkPositionIndex(index, size)\n    } \n"}\n\n/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code\n    is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage\n    kotlin.collections\n\n    internal fun <T> sortArrayWith(array: Array<out T>, comparison: (T, T) -> Int) {\n        if\n        (getStableSortingIsSupported()) {\n            array.asDynamic().sort(comparison)\n        } else {\n            mergeSort(array.unsafeCast<Array<T>>(), 0, array.lastIndex, Comparator(comparison))\n        }\n    } \n\n    internal fun\n    <T> sortArrayWith(array: Array<out T>, comparator: Comparator<in T>) {\n        if (getStableSortingIsSupported())\n        {\n            val comparison = { a: T, b: T -> comparator.compare(a, b) }\n            array.asDynamic().sort(comparison)\n        } else {\n            mergeSort(array.unsafeCast<Array<T>>(), 0, array.lastIndex, comparator)\n        }\n    } \n\n    internal fun

```

```

<T> sortArrayWith(array: Array<out T>, fromIndex: Int, toIndex: Int, comparator: Comparator<in T>) {\n  if
(fromIndex < toIndex - 1) {\n    mergeSort(array.unsafeCast<Array<T>>(), fromIndex, toIndex - 1, comparator)\n
  }\n}\n\ninternal fun <T : Comparable<T>> sortArray(array: Array<out T>) {\n  if
(getStableSortingIsSupported()) {\n    val comparison = { a: T, b: T -> a.compareTo(b) }\n
array.asDynamic().sort(comparison)\n  } else {\n    mergeSort(array.unsafeCast<Array<T>>(), 0,
array.lastIndex, naturalOrder())\n  }\n}\n\nprivate var _stableSortingIsSupported: Boolean? = null\nprivate fun
getStableSortingIsSupported(): Boolean {\n  _stableSortingIsSupported?.let { return it }\n
_stableSortingIsSupported = false\n\n  val array = js("[\]").unsafeCast<Array<Int>>()\n  // known implementations may use stable sort for arrays of up to
512 elements\n  // so we create slightly more elements to test stability\n  for (index in 0 until 600)
array.asDynamic().push(index)\n  val comparison = { a: Int, b: Int -> (a and 3) - (b and 3) }\n
array.asDynamic().sort(comparison)\n  for (index in 1 until array.size) {\n    val a = array[index - 1]\n    val b
= array[index]\n    if ((a and 3) == (b and 3) && a >= b) return false\n  }\n  _stableSortingIsSupported = true\n
return true\n}\n\nprivate fun <T> mergeSort(array: Array<T>, start: Int, endInclusive: Int, comparator:
Comparator<in T>) {\n  val buffer = arrayOfNulls<Any?>(array.size).unsafeCast<Array<T>>()\n  val result =
mergeSort(array, buffer, start, endInclusive, comparator)\n  if (result !== array) {\n    for (i in start..endInclusive)
array[i] = result[i]\n  }\n}\n\n// Both start and end are inclusive indices.\nprivate
fun <T> mergeSort(array: Array<T>, buffer: Array<T>, start: Int, end: Int, comparator: Comparator<in T>):
Array<T> {\n  if (start == end) {\n    return array\n  }\n\n  val median = (start + end) / 2\n  val left =
mergeSort(array, buffer, start, median, comparator)\n  val right = mergeSort(array, buffer, median + 1, end,
comparator)\n\n  val target = if (left === buffer) array else buffer\n\n  // Merge.\n  var leftIndex = start\n  var
rightIndex = median + 1\n  for (i in start..end) {\n    when {\n      leftIndex <= median && rightIndex <= end
-> {\n        val leftValue = left[leftIndex]\n        val rightValue = right[rightIndex]\n\n        if
(comparator.compare(leftValue, rightValue) <= 0) {\n          target[i] = leftValue\n          leftIndex++\n
        } else {\n          target[i] = rightValue\n          rightIndex++\n        }\n      }\n\n      leftIndex
<= median -> {\n        target[i] = left[leftIndex]\n        leftIndex++\n      }\n      else /* rightIndex
<= end */ -> {\n        target[i] = right[rightIndex]\n        rightIndex++\n        Unit // TODO: Fix KT-
31506\n      }\n    }\n  }\n  return target\n}", /*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n */\n\npackage
kotlin.collections\n\n@OptIn(ExperimentalUnsignedTypes::class)\n@SinceKotlin("1.3")\n@kotlin.js.JsName("\ncontentDeepHashCodeImpl")\ninternal fun <T> Array<out T>?.contentDeepHashCodeImpl(): Int {\n  if (this ==
null) return 0\n  var result = 1\n  for (element in this) {\n    val elementHash = when {\n      element == null
-> 0\n      isArrayish(element) -> (element.unsafeCast<Array<*>>()).contentDeepHashCodeImpl()\n
      element is UByteArray -> element.contentHashCode()\n      element is UShortArray ->
element.contentHashCode()\n      element is UIntArray -> element.contentHashCode()\n      element is
ULongArray -> element.contentHashCode()\n      else -> element.hashCode()\n    }\n\n    result = 31 * result + elementHash\n  }\n  return result\n}", /*\n * Copyright 2010-2018 JetBrains s.r.o. and
Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\ninternal interface
EqualityComparator {\n  /**\n   * Subclasses must override to return a value indicating\n   * whether or not two
keys or values are equal.\n   */\n  abstract fun equals(value1: Any?, value2: Any?): Boolean\n\n  /**\n   *
Subclasses must override to return the hash code of a given key.\n   */\n  abstract
fun getHashCode(value: Any?): Int\n\n  object HashCode : EqualityComparator {\n    override fun
equals(value1: Any?, value2: Any?): Boolean = value1 == value2\n    override fun getHashCode(value: Any?):
Int = value?.hashCode() ?: 0\n  }\n}", /*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the

```



```

{\n\n internal val map: HashMap<E, Any>\n\n /**\n * Constructs a new empty [HashSet].\n */\n actual
constructor() {\n map = HashMap<E, Any>()\n }\n\n /**\n * Constructs a new [HashSet] filled with the
elements of the specified collection.\n */\n actual constructor(elements: Collection<E>) {\n map =
HashMap<E, Any>(elements.size)\n addAll(elements)\n }\n\n /**\n * Constructs a new empty
[HashSet].\n */\n * @param initialCapacity the initial capacity (ignored)\n * @param loadFactor the load
factor (ignored)\n */\n * @throws IllegalArgumentException if the initial
capacity or load factor are negative\n */\n actual constructor(initialCapacity: Int, loadFactor: Float) {\n
map = HashMap<E, Any>(initialCapacity, loadFactor)\n }\n\n actual constructor(initialCapacity: Int) :
this(initialCapacity, 0.0f)\n\n /**\n * Protected constructor to specify the underlying map. This is used by\n *
LinkedHashSet.\n */\n * @param map underlying map to use.\n */\n internal constructor(map: HashMap<E,
Any>) {\n this.map = map\n }\n\n actual override fun add(element: E): Boolean {\n val old =
map.put(element, this)\n return old == null\n }\n\n actual override fun clear() {\n map.clear()\n }\n\n//
public override fun clone(): Any {\n// return HashSet<E>(this)\n// }\n\n actual override operator fun
contains(element: E): Boolean = map.containsKey(element)\n\n actual override fun isEmpty(): Boolean =
map.isEmpty()\n\n actual override fun iterator(): MutableIterator<E>
= map.keys.iterator()\n\n actual override fun remove(element: E): Boolean = map.remove(element) != null\n\n
actual override val size: Int get() = map.size\n\n}\n\n/**\n * Creates a new instance of the specialized
implementation of [HashSet] with the specified [String] elements,\n * which elements the keys as properties of JS
object without hashing them.\n */\n\npublic fun stringSetOf(vararg elements: String): HashSet<String> {\n return
HashSet(stringMapOf<Any>()).apply { addAll(elements) }\n }\n\n", "/*\n * Copyright 2010-2018 JetBrains s.r.o. and
Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\n */\n\n * Based on GWT InternalHashCodeMap\n * Copyright
2008 Google Inc.\n */\n\npackage kotlin.collections\n\nimport
kotlin.collections.MutableMap.MutableEntry\nimport kotlin.collections.AbstractMutableMap.SimpleEntry\n\n\n/**\n
* A simple wrapper around JavaScriptObject to provide
[java.util.Map]-like semantics for any\n * key type.\n */\n * Implementation notes:\n * A key's hashCode
is the index in backingMap which should contain that key. Since several keys may\n * have the same hash, each
value in hashCodeMap is actually an array containing all entries whose\n * keys share the same hash.\n */\n\ninternal
class InternalHashCodeMap<K, V>(override val equality: EqualityComparator) : InternalMap<K, V> {\n\n private var
backingMap: dynamic = createJsMap()\n override var size: Int = 0\n private set\n\n override fun
put(key: K, value: V): V? {\n val hashCode = equality.getHashCode(key)\n val chainOrEntry =
getChainOrEntryOrNull(hashCode)\n if (chainOrEntry == null) {\n // This is a new chain, put it to the
map.\n backingMap[hashCode] = SimpleEntry(key, value)\n } else {\n if (chainOrEntry !is
Array<*>) {\n // It is an entry\n val entry: SimpleEntry<K,
V> = chainOrEntry\n if (equality.equals(entry.key, key)) {\n return entry.setValue(value)\n
} else {\n backingMap[hashCode] = arrayOf(entry, SimpleEntry(key, value))\n
size++\n return null\n }\n } else {\n // Chain already exists, perhaps key also
exists.\n val chain: Array<MutableEntry<K, V>> = chainOrEntry\n val entry =
chain.findEntryInChain(key)\n if (entry != null) {\n return entry.setValue(value)\n }\n
chain.asDynamic().push(SimpleEntry(key, value))\n }\n }\n size++\n//
structureChanged(host)\n return null\n }\n\n override fun remove(key: K): V? {\n val hashCode =
equality.getHashCode(key)\n val chainOrEntry = getChainOrEntryOrNull(hashCode) ?: return null\n if
(chainOrEntry
!is Array<*>) {\n val entry: MutableEntry<K, V> = chainOrEntry\n if (equality.equals(entry.key,
key)) {\n jsDeleteProperty(backingMap, hashCode)\n size--\n return entry.value\n
} else {\n return null\n }\n } else {\n val chain: Array<MutableEntry<K, V>> =
chainOrEntry\n for (index in chain.indices) {\n val entry = chain[index]\n if
(equality.equals(key, entry.key)) {\n if (chain.size == 1) {\n chain.asDynamic().length =

```





```

*internal class InternalStringMap<K, V>(override val equality: EqualityComparator) : InternalMap<K, V> {
    private var backingMap: dynamic = createJsMap()
    override var size: Int = 0
    private set // **
    A mod count to track 'value' replacements in map to ensure that the 'value' that we have in the
    iterator entry is guaranteed to be still correct.
    * This is to optimize for the common scenario where the values are not
    modified during
    * iterations where the entries are never stale.
    * private var valueMod: Int = 0
    override operator fun contains(key: K): Boolean {
        if (key !is String) return false
        return backingMap[key] != undefined
    }
    override operator fun get(key: K): V? {
        if (key !is String) return null
        val value = backingMap[key]
        return if (value != undefined) value.unsafeCast<V>() else null
    }
    override fun put(key: K, value: V): V? {
        if (key !is String) return null
        val oldValue = backingMap[key]
        backingMap[key] = value
        if (oldValue == undefined) {
            size++
            structureChanged(host)
            return null
        } else {
            valueMod++
            return oldValue.unsafeCast<V>()
        }
    }
    override fun remove(key: K): V? {
        if (key !is String) return null
        val value = backingMap[key]
        if (value != undefined) {
            jsDeleteProperty(backingMap, key)
            size--
            structureChanged(host)
            return value.unsafeCast<V>()
        } else {
            valueMod++
            return null
        }
    }
    override fun clear() {
        backingMap = createJsMap()
        size = 0
    }
    override fun iterator(): MutableIterator<MutableEntry<K, V>> {
        return object : MutableIterator<MutableEntry<K, V>> {
            private val keys: Array<String> = js("Object").keys(backingMap)
            private val iterator = keys.iterator()
            private var lastKey: String? = null
            override fun hasNext(): Boolean = iterator.hasNext()
            override fun next(): MutableEntry<K, V> {
                val key = iterator.next()
                lastKey = key
                @Suppress("UNCHECKED_CAST")
                return newMapEntry(key as K)
            }
            override fun remove() {
                @Suppress("UNCHECKED_CAST")
                this@InternalStringMap.remove(checkNotNull(lastKey) as K)
            }
            private fun newMapEntry(key: K): MutableEntry<K, V> = object : MutableEntry<K, V> {
                override val key: K get() = key
                override val value: V get() = this@InternalStringMap[key].unsafeCast<V>()
                override fun setValue(newValue: V): V = this@InternalStringMap.put(key, newValue).unsafeCast<V>()
                override fun hashCode(): Int = AbstractMap.entryHashCode(this)
                override fun toString(): String = AbstractMap.entryToString(this)
                override fun equals(other: Any?): Boolean = AbstractMap.entryEquals(this, other)
            }
        }
    }
}
}

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2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.
* Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.
* Based on GWT
LinkedHashMap
* Copyright 2008 Google Inc.
* package kotlin.collections
import
kotlin.collections.MutableMap.MutableEntry
* Hash table based implementation of the [MutableMap]
interface, which additionally preserves the insertion order
* of entries during the iteration.
* The insertion
order is preserved by maintaining a doubly-linked list of all of its entries.
* public actual open class
LinkedHashMap<K, V> : HashMap<K, V>, MutableMap<K, V> {
    /**
     * The entry we use includes
    next/prev pointers for a doubly-linked
    circular
    * list with a head node. This reduces the special cases we have to deal with
    * in the list
    operations.
    * Note that we duplicate the key from the underlying hash map so we can find
    * the eldest
    entry. The alternative would have been to modify HashMap so more
    * of the code was directly usable here, but
    this would have added some
    * overhead to HashMap, or to reimplement most of the HashMap code here with
    * small modifications. Paying a small storage cost only if you use
    * LinkedHashMap and minimizing code size
    seemed like a better tradeoff
    * private inner class ChainEntry<K, V>(key: K, value: V) :
    AbstractMutableMap.SimpleEntry<K, V>(key, value) {
        internal var next: ChainEntry<K, V>? = null
        internal var prev: ChainEntry<K, V>? = null
        override fun setValue(newValue: V): V {
            this@LinkedHashMap.checkIsMutable()
            return super.setValue(newValue)
        }
    }
}

```

```

}
private inner class EntrySet : AbstractEntrySet<MutableEntry<K, V>, K, V>() {
private inner
class EntryIterator : MutableIterator<MutableEntry<K, V>> {
// The last entry that was returned from this
iterator.
private var last: ChainEntry<K, V>? = null
// The next entry to return from this
iterator.
private var next: ChainEntry<K, V>? = null
init {
next = head
recordLastKnownStructure(map, this)
override fun hasNext(): Boolean {
return
next != null
}
override fun next(): MutableEntry<K, V> {
checkStructuralChange(map, this)
if (!hasNext()) throw NoSuchElementException()
val
current = next!!
last = current
next = current.next.takeIf { it != head }
return
current
}
override fun remove() {
check(last != null)
this@EntrySet.checkIsMutable()
checkStructuralChange(map, this)
last!!.remove()
map.remove(last!!.key)
recordLastKnownStructure(map, this)
last = null
}
override fun add(element:
MutableEntry<K, V>): Boolean = throw UnsupportedOperationException("Add is not supported on entries")
override fun clear() {
this@LinkedHashMap.clear()
}
override fun containsEntry(element:
Map.Entry<K, V>): Boolean = this@LinkedHashMap.containsEntry(element)
override operator fun
iterator(): MutableIterator<MutableEntry<K, V>> = EntryIterator()
override fun removeEntry(element:
Map.Entry<K, V>): Boolean {
checkIsMutable()
if (contains(element)) {
this@LinkedHashMap.remove(element.key)
return true
}
return false
}
override val size: Int get() =
this@LinkedHashMap.size
override fun checkIsMutable(): Unit =
this@LinkedHashMap.checkIsMutable()
}
/*
* The head of the insert order chain, which is a doubly-
linked circular
* list.
* The most recently inserted node is at the end of the chain, ie.
* chain.prev.
*/
private var head: ChainEntry<K, V>? = null
/**
* Add this node to the end of the chain.
*/
private fun ChainEntry<K, V>.addToEnd() {
// This entry is not in the list.
check(next == null && prev
== null)
val _head = head
if (_head == null) {
head = this
next = this
prev =
this
} else {
// Chain is valid.
val _tail = checkNotNull(_head.prev)
// Update me.
prev = _tail
next = _head
// Update my new siblings: current head and old tail
_head.prev = this
_tail.next = this
}
}
/**
* Remove this node from the chain it is a part of.
*/
private fun ChainEntry<K,
V>.remove() {
if (this.next === this) {
// if this is single element, remove head
head = null
} else {
if (head === this) {
// if this is first element, move head to next
head =
next
}
next!!.prev = prev
prev!!.next = next
}
next = null
prev = null
}
/*
* The hashmap that keeps track of our entries and the chain. Note that we
* duplicate the key here
to eliminate changes to HashMap and minimize the
* code here, at the expense of additional space.
*/
private val map: HashMap<K, ChainEntry<K, V>>
private var isReadOnly: Boolean = false
/**
* Constructs an empty [LinkedHashMap] instance.
*/
actual constructor(): super() {
map =
HashMap<K, ChainEntry<K, V>>()
}
internal constructor(backingMap: HashMap<K, Any>): super() {
@Suppress("UNCHECKED_CAST") // expected to work due to erasure
map = backingMap as
HashMap<K, ChainEntry<K, V>>
}
/**
* Constructs an empty [LinkedHashMap] instance.
*/
* @param initialCapacity the initial capacity (ignored)
* @param loadFactor the load factor (ignored)
* @throws IllegalArgumentException if the initial capacity or load factor are negative
*/
actual
constructor(initialCapacity: Int, loadFactor: Float): super(initialCapacity, loadFactor) {
map = HashMap<K,
ChainEntry<K, V>>()
}
actual constructor(initialCapacity: Int): this(initialCapacity, 0.0f)
/**
* Constructs an instance of [LinkedHashMap] filled with the contents of the specified [original]
map.
*/
actual constructor(original: Map<out K, V>): super() {
map = HashMap<K, ChainEntry<K, V>>()
this.putAll(original)
}
@PublishedApi
internal fun build(): Map<K, V> {
checkIsMutable()
isReadOnly = true
return this
}
actual override fun clear() {
checkIsMutable()
map.clear()
head = null
}
}
override fun clone(): Any {
return LinkedHashMap(this)
}

```

```

}\n\n actual override fun containsKey(key: K): Boolean = map.containsKey(key)\n\n actual override fun
containsValue(value: V): Boolean {\n    var node: ChainEntry<K, V> = head ?: return false\n    do {\n        if
(node.value == value) {\n            return true\n        }\n        node = node.next!!\n    } while (node !==
head)\n    return false\n }\n\n internal override fun createEntrySet():
MutableSet<MutableMap.MutableEntry<K, V>> = EntrySet()\n\n actual override operator fun get(key: K): V? = map.get(key)?.value\n\n actual override fun put(key: K, value:
V): V? {\n    checkIsMutable()\n    val old = map.get(key)\n    if (old == null) {\n        val newEntry =
ChainEntry(key, value)\n        map.put(key, newEntry)\n        newEntry.addToEnd()\n        return null\n
    } else {\n        return old.setValue(value)\n    }\n }\n\n actual override fun remove(key: K): V? {\n
checkIsMutable()\n    val entry = map.remove(key)\n    if (entry != null) {\n        entry.remove()\n
return entry.value\n    }\n    return null\n }\n\n actual override val size: Int get() = map.size\n\n internal
override fun checkIsMutable() {\n    if (isReadOnly) throw UnsupportedOperationException()\n }\n}\n\n/**\n *
Constructs the specialized implementation of [LinkedHashMap] with [String] keys, which stores the keys as
properties of\n * JS object without
hashing them.\n */\n\n public fun <V> linkedStringMapOf(vararg pairs: Pair<String, V>): LinkedHashMap<String,
V> {\n    return LinkedHashMap<String, V>(stringMapOf<Any>()).apply { putAll(pairs) }\n }\n\n", /*\n * Copyright
2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n * Based on GWT
LinkedHashSet\n * Copyright 2008 Google Inc.\n */\n\n package kotlin.collections\n\n /**\n * The implementation
of the [MutableSet] interface, backed by a [LinkedHashMap] instance.\n */\n\n * This implementation preserves the
insertion order of elements during the iteration.\n */\n\n public actual open class LinkedHashSet<E> : HashSet<E>,
MutableSet<E> {\n\n    internal constructor(map: LinkedHashMap<E, Any>) : super(map)\n\n    /**\n     *
Constructs a new empty [LinkedHashSet].\n     */\n\n     actual constructor() : super(LinkedHashMap<E, Any>())\n\n
    /**\n     *
Constructs a new [LinkedHashSet] filled with the elements of the specified collection.\n     */\n\n     actual
constructor(elements: Collection<E>) : super(LinkedHashMap<E, Any>()) {\n        addAll(elements)\n    }\n\n
    /**\n     * Constructs a new empty [LinkedHashSet].\n     */\n\n     * @param initialCapacity the initial capacity
(ignored)\n     * @param loadFactor the load factor (ignored)\n     */\n\n     * @throws IllegalArgumentException if
the initial capacity or load factor are negative\n     */\n\n     actual constructor(initialCapacity: Int, loadFactor: Float) :
super(LinkedHashMap<E, Any>(initialCapacity, loadFactor))\n\n     actual constructor(initialCapacity: Int) :
this(initialCapacity, 0.0f)\n\n     @PublishedApi\n     internal fun build(): Set<E> {\n        (map as
LinkedHashMap<E, Any>).build()\n        return this\n    }\n\n     internal override fun checkIsMutable(): Unit =
map.checkIsMutable()\n\n    // public override fun clone(): Any {\n    //     return LinkedHashSet(this)\n    //
}\n\n }\n\n /**\n * Creates a new instance of the specialized implementation of [LinkedHashSet] with the specified
[String] elements,\n * which elements the keys as properties of JS object without hashing them.\n */\n\n public fun
linkedStringSetOf(vararg elements: String): LinkedHashSet<String> {\n    return
LinkedHashSet(linkedStringMapOf<Any>()).apply { addAll(elements) }\n }\n\n", /*\n * Copyright 2010-2020
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n package kotlin\n\n import
kotlin.contracts.*\n\n @DeprecatedSinceKotlin(warningSince = "1.6")\n @Deprecated("Synchronization on any
object is not supported in Kotlin/JS",
ReplaceWith("run(block)"))\n @kotlin.internal.InlineOnly\n @Suppress("UNUSED_PARAMETER")\n public
inline fun <R> synchronized(lock: Any, block: () -> R): R {\n    contract {\n        callsInPlace(block,
InvocationKind.EXACTLY_ONCE)\n    }\n\n    return block()\n }\n\n", /*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\n package kotlin.io\n\n internal abstract class BaseOutput {\n    open fun println()
{\n        print("\\n")\n    }\n\n    open fun println(message: Any?) {\n        print(message)\n        println()\n    }\n
}

```

```

abstract fun print(message: Any?)\n\n    open fun flush() {\n}\n\n/** JsName used to make the declaration
available outside of module to test it */\n@JsName("NodeJsOutput")\ninternal class NodeJsOutput(val
outputStream: dynamic) : BaseOutput() {\n    override fun print(message: Any?) {\n        // TODO: Using local
variable because of bug in block decomposition lowering in IR backend\n        val messageString =
String(message)\n        outputStream.write(messageString)\n    }\n}\n\n/** JsName used to make the declaration
available outside of module to test it */\n@JsName("OutputToConsoleLog")\ninternal class OutputToConsoleLog
: BaseOutput() {\n    override fun print(message: Any?) {\n        console.log(message)\n    }\n\n    override fun
println(message: Any?) {\n        console.log(message)\n    }\n\n    override fun println() {\n        console.log("\\")\n
}\n}\n\n/** JsName used to make the declaration available outside of module to test it and use at try.kotl.in
*/\n@JsName("BufferedOutput")\ninternal open class BufferedOutput : BaseOutput() {\n    var buffer = "\\\"\n\n
override fun print(message: Any?) {\n        buffer += String(message)\n    }\n\n    override fun flush() {\n        buffer
= "\\\"\n    }\n}\n\n/** JsName used to make the declaration available outside of module to test it
*/\n@JsName("BufferedOutputToConsoleLog")\ninternal class BufferedOutputToConsoleLog : BufferedOutput()\n{\n    override fun print(message: Any?) {\n        var s = String(message)\n        val
i = s.nativeLastIndexOf("\\\\n", 0)\n        if (i >= 0) {\n            buffer += s.substring(0, i)\n            flush()\n            s =
s.substring(i + 1)\n        }\n        buffer += s\n    }\n\n    override fun flush() {\n        console.log(buffer)\n        buffer
= "\\\"\n    }\n}\n\n/** JsName used to make the declaration available outside of module to test it and use at
try.kotl.in */\n@JsName("output")\ninternal var output = run {\n    val isNode: Boolean = js("typeof process !==
'undefined' && process.versions && !process.versions.node")\n    if (isNode) NodeJsOutput(js("process.stdout"))\n
else BufferedOutputToConsoleLog()\n}\n\n@kotlin.internal.InlineOnly\nprivate inline fun String(value: Any?):
String = js("String")(value)\n\n/** Prints the line separator to the standard output stream. */\npublic actual fun
println() {\n    output.println()\n}\n\n/** Prints the given [message] and the line separator to the standard output
stream. */\npublic actual fun println(message:
Any?) {\n    output.println(message)\n}\n\n/** Prints the given [message] to the standard output stream. */\npublic
actual fun print(message: Any?) {\n    output.print(message)\n}\n\n@SinceKotlin("1.6")\npublic actual fun
readln(): String = throw UnsupportedOperationException("readln is not supported in
Kotlin/JS")\n\n@SinceKotlin("1.6")\npublic actual fun readlnOrNull(): String? = throw
UnsupportedOperationException("readlnOrNull is not supported in Kotlin/JS")", "/*\n * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines\n\nimport
kotlin.coroutines.intrinsics.CoroutineSingletons.*\nimport
kotlin.coroutines.intrinsics.COROUTINE_SUSPENDED\n\n@PublishedApi\n@SinceKotlin("1.3")\ninternal
actual class SafeContinuation<in T>\ninternal actual constructor(\n    private val delegate: Continuation<T>,\n
    initialResult: Any?)\n) : Continuation<T> {\n    @PublishedApi\n    internal actual constructor(delegate:
Continuation<T>) : this(delegate, UNDECIDED)\n\n    public actual override val context: CoroutineContext\n
get() = delegate.context\n\n    private var result: Any? = initialResult\n\n    public actual override fun
resumeWith(result: Result<T>) {\n        val cur = this.result\n        when {\n            cur === UNDECIDED -> {\n
                this.result = result.value\n            }\n            cur === COROUTINE_SUSPENDED -> {\n                this.result =
RESUMED\n                delegate.resumeWith(result)\n            }\n            else -> throw
IllegalStateException("Already resumed")\n        }\n    }\n\n    @PublishedApi\n    internal actual fun
getOrThrow(): Any? {\n        if (result === UNDECIDED) {\n            result = COROUTINE_SUSPENDED\n
return COROUTINE_SUSPENDED\n        }\n        val result = this.result\n        return when {\n            result === RESUMED -> COROUTINE_SUSPENDED // already called continuation, indicate
COROUTINE_SUSPENDED upstream\n            result is Result.Failure -> throw result.exception\n            else ->
result // either COROUTINE_SUSPENDED or data\n        }\n    }\n}\n\n", "/*\n * Copyright 2010-2020 JetBrains
s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0
license that can be found in the license/LICENSE.txt file.\n */\n\npackage
kotlin.coroutines.cancellation\n\n@SinceKotlin("1.4")\npublic actual open class CancellationException :

```

```

IllegalStateException {\n  actual constructor() : super()\n  actual constructor(message: String?) : super(message)\n  constructor(message: String?, cause: Throwable?) : super(message, cause)\n  constructor(cause: Throwable?) : super(cause)\n}"/**\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines.js.internal\n\nimport kotlin.coroutines.Continuation\n\nkotlin.coroutines.EmptyCoroutineContext\n\n@PublishedApi\n@SinceKotlin("1.3")\ninternal val EmptyContinuation = Continuation<Any?>(EmptyCoroutineContext) { result ->\n  result.getOrThrow()\n}"/**\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\n/**\n * Exposes the [Date API](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Date) to Kotlin.\n */\n@Suppress("NOT_DOCUMENTED")\npublic external class Date() {\n  public constructor(milliseconds: Number)\n  public constructor(dateString: String)\n  public constructor(year: Int, month: Int)\n  public constructor(year: Int, month: Int, day: Int)\n  public constructor(year: Int, month: Int, day: Int, hour: Int)\n  public constructor(year: Int, month: Int, day: Int, hour: Int, minute: Int)\n  public constructor(year: Int, month: Int, day: Int, hour: Int, minute: Int, second: Int)\n  public constructor(year: Int, month: Int, day: Int, hour: Int, minute: Int, second: Int, millisecond: Number)\n  public fun getDate(): Int\n  public fun getDay(): Int\n  public fun getFullYear(): Int\n  public fun getHours(): Int\n  public fun getMilliseconds(): Int\n  public fun getMinutes(): Int\n  public fun getMonth(): Int\n  public fun getSeconds(): Int\n  public fun getTime(): Double\n  public fun getTimezoneOffset(): Int\n  public fun getUTCDate(): Int\n  public fun getUTCDay(): Int\n  public fun getUTCFullYear(): Int\n  public fun getUTCHours(): Int\n  public fun getUTCMilliseconds(): Int\n  public fun getUTCMinutes(): Int\n  public fun getUTCMonth(): Int\n  public fun getUTCSeconds(): Int\n  public fun toDateString(): String\n  public fun toISOString(): String\n  public fun toJSON(): Json\n  public fun toLocaleDateString(locales: Array<String> = definedExternally, options: LocaleOptions = definedExternally): String\n  public fun toLocaleDateString(locales: String, options: LocaleOptions = definedExternally): String\n  public fun toLocaleString(locales: Array<String> = definedExternally, options: LocaleOptions = definedExternally): String\n  public fun toLocaleString(locales: String, options: LocaleOptions = definedExternally): String\n  public fun toLocaleTimeString(locales: Array<String> = definedExternally, options: LocaleOptions = definedExternally): String\n  public fun toLocaleTimeString(locales: String, options: LocaleOptions = definedExternally): String\n  public fun toTimeString(): String\n  public fun toUTCString(): String\n  public companion object {\n    public fun now(): Double\n\n    public fun parse(dateString: String): Double\n\n    public fun UTC(year: Int, month: Int): Double\n\n    public fun UTC(year: Int, month: Int, day: Int): Double\n\n    public fun UTC(year: Int, month: Int, day: Int, hour: Int): Double\n\n    public fun UTC(year: Int, month: Int, day: Int, hour: Int, minute: Int): Double\n\n    public fun UTC(year: Int, month: Int, day: Int, hour: Int, minute: Int, second: Int): Double\n\n    public fun UTC(year: Int, month: Int, day: Int, hour: Int, minute: Int, second: Int, millisecond: Number): Double\n  }\n\n  public interface LocaleOptions {\n    public var localeMatcher: String?\n    public var timeZone: String?\n    public var hour12: Boolean?\n    public var formatMatcher: String?\n    public var weekday: String?\n    public var era: String?\n    public var year: String?\n    public var month: String?\n    public var day: String?\n    public var hour: String?\n    public var minute: String?\n    public var second: String?\n    public var timeZoneName: String?\n  }\n\n  public inline fun dateLocaleOptions(init: Date.LocaleOptions.() -> Unit): Date.LocaleOptions {\n    val result = js("new Object()").unsafeCast<Date.LocaleOptions>\n    init(result)\n    return result\n  }"/**\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage

```

```

kotlin.dom\n\nimport org.w3c.dom.Document\nimport org.w3c.dom.Element\nimport
kotlin.internal.LowPriorityInOverloadResolution\nimport kotlinx.dom.appendElement as
newAppendElement\nimport kotlinx.dom.createElement as newCreateElement\n\n/**\n * Creates a new element
with the specified [name].\n *\n * The element is initialized with the specified [init] function.\n
*\n *\n @LowPriorityInOverloadResolution\n @Deprecated(\n     message =
    \"This API is moved to another package, use 'kotlinx.dom.createElement' instead.\",\n     replaceWith =
    ReplaceWith(\"this.createElement(name, init)\",
    \"kotlinx.dom.createElement\")\n)\n @DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\n public
inline fun Document.createElement(name: String, noinline init: Element.() -> Unit): Element =
    this.newCreateElement(name, init)\n\n /**\n * Appends a newly created element with the specified [name] to this
element.\n *\n * The element is initialized with the specified [init] function.\n
*\n *\n @LowPriorityInOverloadResolution\n @Deprecated(\n     message = \"This API is moved to another package,
use 'kotlinx.dom.appendElement' instead.\",\n     replaceWith = ReplaceWith(\"this.appendElement(name, init)\",
    \"kotlinx.dom.appendElement\")\n)\n @DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\n public
inline fun Element.appendElement(name: String, noinline init: Element.() -> Unit): Element =
    this.newAppendElement(name,
    init)\n\n \"/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of
this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\n *\n package kotlin.dom\n import org.w3c.dom.Element\n import
kotlin.internal.LowPriorityInOverloadResolution\n import kotlinx.dom.addClass as newAddClass\n import
kotlin.dom.hasClass as newHasClass\n import kotlinx.dom.removeClass as newRemoveClass\n\n /**\n * Returns true if
the element has the given CSS class style in its 'class' attribute
*\n *\n @LowPriorityInOverloadResolution\n @Deprecated(\n     message = \"This API is moved to another package,
use 'kotlinx.dom.hasClass' instead.\",\n     replaceWith = ReplaceWith(\"this.hasClass(cssClass)\",
    \"kotlinx.dom.hasClass\")\n)\n @DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\n inline fun
Element.hasClass(cssClass: String): Boolean = this.newHasClass(cssClass)\n\n /**\n * Adds CSS class to element.
Has no effect
if all specified classes are already in class attribute of the element\n *\n * @return true if at least one class has been
added\n *\n @LowPriorityInOverloadResolution\n @Deprecated(\n     message = \"This API is moved to another
package, use 'kotlinx.dom.addClass' instead.\",\n     replaceWith = ReplaceWith(\"this.addClass(cssClasses)\",
    \"kotlinx.dom.addClass\")\n)\n @DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\n inline fun
Element.addClass(vararg cssClasses: String): Boolean = this.newAddClass(*cssClasses)\n\n /**\n * Removes all
[cssClasses] from element. Has no effect if all specified classes are missing in class attribute of the element\n *\n *
@return true if at least one class has been removed\n *\n @LowPriorityInOverloadResolution\n @Deprecated(\n     message = \"This API is moved to another package, use 'kotlinx.dom.removeClass' instead.\",\n     replaceWith =
    ReplaceWith(\"this.removeClass(cssClasses)\",
    \"kotlinx.dom.removeClass\")\n)\n @DeprecatedSinceKotlin(warningSince
= \"1.4\", errorSince = \"1.6\")\n inline fun Element.removeClass(vararg cssClasses: String): Boolean =
    this.newRemoveClass(*cssClasses)\n\n \"/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n *\n *\n package kotlin.dom\n import org.w3c.dom.Element\n import
org.w3c.dom.Node\n import kotlin.internal.LowPriorityInOverloadResolution\n import kotlinx.dom.isElement as
newIsElement\n import kotlinx.dom.isText as newIsText\n\n /**\n * Gets a value indicating whether this node is a
TEXT_NODE or a CDATA_SECTION_NODE.\n *\n @LowPriorityInOverloadResolution\n @Deprecated(\n     message = \"This API is moved to another package, use 'kotlinx.dom.isText' instead.\",\n     replaceWith =
    ReplaceWith(\"this.isText\", \"kotlinx.dom.isText\")\n)\n @DeprecatedSinceKotlin(warningSince = \"1.4\",
errorSince = \"1.6\")\n public val Node.isText: Boolean\n

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inline get() = this.newIsText\n\n/**\n * Gets a value indicating whether this node is an [Element].\n
*\n@LowPriorityInOverloadResolution\n@Deprecated(\n message = \"This API is moved to another package,
use 'kotlinx.dom.isElement' instead.\",\n replaceWith = ReplaceWith(\"this.isElement\"),
\"kotlinx.dom.isElement\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic val
Node.isElement: Boolean\n inline get() = this.newIsElement\n\", \"/*\n * Copyright 2010-2018 JetBrains s.r.o. and
Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\n */\n\npackage org.w3c.dom.events\n\npublic fun
EventListener(handler: (Event) -> Unit): EventListener = EventListenerHandler(handler)\n\nprivate class
EventListenerHandler(private val handler: (Event) -> Unit) : EventListener {\n public override fun
handleEvent(event: Event) {\n handler(event)\n
}\n\n public override fun toString(): String = \"EventListenerHandler($handler)\"\n}\n\", \"/*\n * Copyright 2010-
2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage org.w3c.dom\n\npublic
external interface ItemArrayLike<out T> {\n val length: Int\n fun item(index: Int): T?\n}\n\n/**\n * Returns the
view of this `ItemArrayLike<T>` collection as `List<T>`\n */\n\npublic fun <T> ItemArrayLike<T>.asList(): List<T>
= object : AbstractList<T>() {\n override val size: Int get() = this@asList.length\n\n override fun get(index: Int):
T = when (index) {\n in 0..lastIndex -> this@asList.item(index).unsafeCast<T>()\n else -> throw
IndexOutOfBoundsException(\"index $index is not in range [0..$lastIndex]\")\n }\n}\n\", \"/*\n * Copyright 2010-
2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source
code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
kotlin.dom\n\nimport org.w3c.dom.Element\nimport org.w3c.dom.Node\nimport
kotlin.internal.LowPriorityInOverloadResolution\nimport kotlinx.dom.appendText as newAppendText\nimport
kotlinx.dom.clear as newClear\n\n/** Removes all the children from this node.
*\n@LowPriorityInOverloadResolution\n@Deprecated(\n message = \"This API is moved to another package,
use 'kotlinx.dom.clear' instead.\",\n replaceWith = ReplaceWith(\"this.clear()\"),
\"kotlinx.dom.clear\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic inline fun
Node.clear() = this.newClear()\n\n/**\n * Creates text node and append it to the element.\n */\n * @return this
element\n */\n\n@LowPriorityInOverloadResolution\n@Deprecated(\n message = \"This API is moved to another
package, use 'kotlinx.dom.appendText' instead.\",\n replaceWith = ReplaceWith(\"this.appendText(text)\"),
\"kotlinx.dom.appendText\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\ninline fun
Element.appendText(text: String): Element = this.newAppendText(text)\n\", \"/*\n * Copyright 2010-2018 JetBrains
s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0
license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\n/**\n * Reinterprets this value
as a value of the [dynamic type](/docs/reference/dynamic-type.html).\n */\n\n@kotlin.internal.InlineOnly\n\npublic
inline fun Any?.asDynamic(): dynamic = this\n\n/**\n * Reinterprets this value as a value of the specified type [T]
without any actual type checking.\n */\n\n@kotlin.internal.InlineOnly\n\npublic inline fun <T> Any?.unsafeCast():
@kotlin.internal.NoInfer T = this.asDynamic()\n\n/**\n * Reinterprets this `dynamic` value as a value of the
specified type [T] without any actual type checking.\n
*\n@kotlin.internal.DynamicExtension\n@JsName(\"unsafeCastDynamic\")\n@kotlin.internal.InlineOnly\n\npublic
inline fun <T> dynamic.unsafeCast(): @kotlin.internal.NoInfer T = this\n\n/**\n * Allows to iterate this `dynamic`
object in the following cases:\n * - when it has an `iterator` function,\n * - when it is an array\n * - when it is an
instance of [kotlin.collections.Iterable]\n */\n\n@kotlin.internal.DynamicExtension\n\npublic operator fun
dynamic.iterator(): Iterator<dynamic> {\n val r: Any? = this\n\n return when {\n this[\"iterator\"] != null -
>\n this[\"iterator\"]()\n isArrayish(r) ->\n r.unsafeCast<Array<*>>().iterator()\n\n else ->\n
(r as Iterable<*>).iterator()\n }\n}\n\", \"/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin.enums\n\n// Unused stub\ninternal actual class
EnumEntriesSerializationProxy<E

```

```

: Enum<E>> actual constructor(entries: Array<E>)\n", "/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n *^\n\n// a package is omitted to get declarations directly under the
module\n\n@JsName("throwNPE")\ninternal fun throwNPE(message: String) {\n    throw
NullPointerException(message)\n}\n\n@JsName("throwCCE")\ninternal fun throwCCE() {\n    throw
ClassCastException("Illegal cast")\n}\n\n@JsName("throwISE")\ninternal fun throwISE(message: String) {\n
throw IllegalStateException(message)\n}\n\n@JsName("throwUPAE")\ninternal fun throwUPAE(propertyName:
String) {\n    throw UninitializedPropertyAccessException("lateinit property ${propertyName} has not been
initialized")\n}\n", "/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n
* Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n *^\n\npackage
kotlin.collections\n\n/**\n * Groups elements from the [Grouping] source by key and counts elements in each
group.\n * \n * @return a [Map] associating the key of each group with the count of elements in the group.\n * \n *
@sample samples.collections.Grouping.groupingByEachCount\n *^\n\n@SinceKotlin("1.1")\npublic actual fun <T,
K> Grouping<T, K>.eachCount(): Map<K, Int> =\n    fold(0) { acc, _ -> acc + 1 }\n\n/**\n * Groups elements
from the [Grouping] source by key and sums values provided by the [valueSelector] function for elements in each
group.\n * \n * @return a [Map] associating the key of each group with the count of element in the group.\n
*^\n\n@SinceKotlin("1.1")\npublic inline fun <T, K> Grouping<T, K>.eachSumOf(valueSelector: (T) -> Int):
Map<K, Int> =\n    fold(0) { acc, e -> acc + valueSelector(e) }\n *", "/*\n * Copyright 2010-2018 JetBrains s.r.o.
and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n
*^\n\n@file:kotlin.jvm.JvmName("GroupingKt")\n@file:kotlin.jvm.JvmMultifileClass\n\npackage
kotlin.collections\n\n/**\n * Represents a source of elements with a [keyOf] function, which can be applied to each
element to get its key.\n * \n * A [Grouping] structure serves as an intermediate step in group-and-fold operations:\n
* they group elements by their keys and then fold each group with some aggregating operation.\n * \n * It is created
by attaching `keySelector: (T) -> K` function to a source of elements.\n * To get an instance of [Grouping] use one
of `groupingBy` extension functions:\n * - [Iterable.groupingBy]\n * - [Sequence.groupingBy]\n * -
[Array.groupingBy]\n * - [CharSequence.groupingBy]\n * \n * For the list of group-and-fold operations available,
see the [extension functions](#extension-functions) for `Grouping`.\n *^\n\n@SinceKotlin("1.1")\npublic
interface Grouping<T, out K> {\n    /** Returns an [Iterator] over the elements of the source of this grouping. */\n
fun sourceIterator(): Iterator<T>\n    /** Extracts the key of an [element]. */\n    fun keyOf(element: T):
K\n}\n\n/**\n * Groups elements from the [Grouping] source by key and applies [operation] to the elements of each
group sequentially,\n * passing the previously accumulated value and the current element as arguments, and stores
the results in a new map.\n * \n * The key for each element is provided by the [Grouping.keyOf] function.\n * \n *
@param operation function is invoked on each element with the following parameters:\n * - `key`: the key of the
group this element belongs to;\n * - `accumulator`: the current value of the accumulator of the group, can be `null`
if it's the first `element` encountered in the group;\n * - `element`: the element from the source being aggregated;\n
* - `first`: indicates whether it's the first `element` encountered
in the group.\n * \n * @return a [Map] associating the key of each group with the result of aggregation of the group
elements.\n * \n * @sample samples.collections.Grouping.aggregateByRadix\n *^\n\n@SinceKotlin("1.1")\npublic inline
fun <T, K, R> Grouping<T, K>.aggregate(\n    operation: (key: K, accumulator: R?, element: T, first: Boolean) ->
R)\n): Map<K, R> {\n    return aggregateTo(mutableMapOf<K, R>(), operation)\n}\n\n/**\n * Groups elements
from the [Grouping] source by key and applies [operation] to the elements of each group sequentially,\n * passing
the previously accumulated value and the current element as arguments,\n * and stores the results in the given
[destination] map.\n * \n * The key for each element is provided by the [Grouping.keyOf] function.\n * \n * @param
operation a function that is invoked on each element with the following parameters:\n * - `key`: the key of the group
this element belongs to;\n * - `accumulator`: the current value of the accumulator of the

```



group, can be `null` if it's the first `element` encountered in the group;\n \* - `element`: the element from the source being aggregated;\n \* - `first`: indicates whether it's the first `element` encountered in the group.\n \*\n \* If the [destination] map already has a value corresponding to some key,\n \* then the elements being aggregated for that key are never considered as `first`.\n \*\n \* @return the [destination] map associating the key of each group with the result of aggregation of the group elements.\n \* @sample samples.collections.Grouping.aggregateByRadixTo\n \*\n \* @SinceKotlin("1.1")\n public inline fun <T, K, R, M : MutableMap<in K, R>> Grouping<T, K>.aggregateTo(\n destination: M,\n operation: (key: K, accumulator: R?, element: T, first: Boolean) -> R)\n : M {\n for (e in this.sourceIterator()) {\n val key = keyOf(e)\n val accumulator = destination[key]\n destination[key] = operation(key, accumulator, e, accumulator == null && !destination.containsKey(key))\n }\n return destination\n }\n }\n \*\n \* Groups elements from the [Grouping] source by key and applies [operation] to the elements of each group sequentially,\n \* passing the previously accumulated value and the current element as arguments, and stores the results in a new map.\n \* An initial value of accumulator is provided by [initialValueSelector] function.\n \*\n \* @param initialValueSelector a function that provides an initial value of accumulator for each group.\n \* It's invoked with parameters:\n \* - `key`: the key of the group;\n \* - `element`: the first element being encountered in that group.\n \*\n \* @param operation a function that is invoked on each element with the following parameters:\n \* - `key`: the key of the group this element belongs to;\n \* - `accumulator`: the current value of the accumulator of the group;\n \* - `element`: the element from the source being accumulated.\n \*\n \* @return a [Map] associating the key of each group with the result of accumulating the group elements.\n \* @sample samples.collections.Grouping.foldByEvenLengthWithComputedInitialValue\n \*\n \* @SinceKotlin("1.1")\n public inline fun <T, K, R> Grouping<T, K>.fold(\n initialValueSelector: (key: K, element: T) -> R,\n operation: (key: K, accumulator: R, element: T) -> R)\n : Map<K, R> =\n @Suppress("UNCHECKED\_CAST")\n aggregate {\n key, acc, e, first -> operation(key, if (first) initialValueSelector(key, e) else acc as R, e) }\n }\n \*\n \* Groups elements from the [Grouping] source by key and applies [operation] to the elements of each group sequentially,\n \* passing the previously accumulated value and the current element as arguments,\n \* and stores the results in the given [destination] map.\n \* An initial value of accumulator is provided by [initialValueSelector] function.\n \*\n \* @param initialValueSelector a function that provides an initial value of accumulator for each group.\n \* It's invoked with parameters:\n \* - `key`: the key of the group;\n \* - `element`: the first element being encountered in that group.\n \*\n \* If the [destination] map already has a value corresponding to some key, that value is used as an initial value of\n \* the accumulator for that group and the [initialValueSelector] function is not called for that group.\n \*\n \* @param operation a function that is invoked on each element with the following parameters:\n \* - `key`: the key of the group this element belongs to;\n \* - `accumulator`: the current value of the accumulator of the group;\n \* - `element`: the element from the source being accumulated.\n \*\n \* @return the [destination] map associating the key of each group with the result of accumulating the group elements.\n \* @sample samples.collections.Grouping.foldByEvenLengthWithComputedInitialValueTo\n \*\n \* @SinceKotlin("1.1")\n public inline fun <T, K, R, M : MutableMap<in K, R>> Grouping<T, K>.foldTo(\n destination: M,\n initialValueSelector: (key: K, element: T) -> R,\n operation: (key: K, accumulator: R, element: T) -> R)\n : M =\n @Suppress("UNCHECKED\_CAST")\n aggregateTo(destination) {\n key, acc, e, first -> operation(key, if (first) initialValueSelector(key, e) else acc as R, e) }\n }\n \*\n \* Groups elements from the [Grouping] source by key and applies [operation] to the elements of each group sequentially,\n \* passing the previously accumulated value and the current element as arguments, and stores the results in a new map.\n \* An initial value of accumulator is the same [initialValue] for each group.\n \*\n \* @param operation a function that is invoked on each element with the following parameters:\n \* - `accumulator`: the current value of the accumulator of the group;\n \* - `element`: the element from the source being accumulated.\n \*\n \* @return a [Map] associating the key of each group with the result of accumulating the group elements.\n \* @sample samples.collections.Grouping.foldByEvenLengthWithConstantInitialValue\n \*\n \* @SinceKotlin("1.1")\n public

```

inline fun <T, K, R> Grouping<T, K>.fold(\n  initialValue: R,\n  operation: (accumulator: R, element: T) ->
R\n): Map<K, R> =\n  @Suppress("UNCHECKED_CAST")\n  aggregate { _, acc, e, first -> operation(if (first)
initialValue else acc as R, e) }\n\n/**\n * Groups elements from the [Grouping] source by key and applies
[operation] to the elements of each group sequentially,\n * passing the previously accumulated value and the current
element as arguments,\n * and stores the results in the given [destination] map.\n * An initial value of accumulator is
the same [initialValue] for each group.\n *\n * If the [destination] map already has a value corresponding to the key
of some group,\n * that value is used as an initial value of the accumulator for that group.\n *\n * @param operation
a function that is invoked on each element with the following parameters:\n * - `accumulator`: the current value of
the accumulator of the group;\n * - `element`: the element from
the source being accumulated.\n *\n * @return the [destination] map associating the key of each group with the
result of accumulating the group elements.\n * @sample
samples.collections.Grouping.foldByEvenLengthWithConstantInitialValueTo\n */\n@SinceKotlin("1.1")\npublic
inline fun <T, K, R, M : MutableMap<in K, R>> Grouping<T, K>.foldTo(\n  destination: M,\n  initialValue: R,\n
operation: (accumulator: R, element: T) -> R\n): M =\n  @Suppress("UNCHECKED_CAST")\n
aggregateTo(destination) { _, acc, e, first -> operation(if (first) initialValue else acc as R, e) }\n\n\n/**\n * Groups
elements from the [Grouping] source by key and applies the reducing [operation] to the elements of each group\n *
sequentially starting from the second element of the group,\n * passing the previously accumulated value and the
current element as arguments,\n * and stores the results in a new map.\n * An initial value of accumulator is the first
element of the group.\n *\n * @param operation a
function that is invoked on each subsequent element of the group with the following parameters:\n * - `key`: the
key of the group this element belongs to;\n * - `accumulator`: the current value of the accumulator of the group;\n *
- `element`: the element from the source being accumulated.\n *\n * @return a [Map] associating the key of each
group with the result of accumulating the group elements.\n * @sample
samples.collections.Grouping.reduceByMaxVowels\n */\n@SinceKotlin("1.1")\npublic inline fun <S, T : S, K>
Grouping<T, K>.reduce(\n  operation: (key: K, accumulator: S, element: T) -> S\n): Map<K, S> =\n  aggregate {
key, acc, e, first ->\n    @Suppress("UNCHECKED_CAST")\n    if (first) e else operation(key, acc as S, e)\n
}\n\n\n/**\n * Groups elements from the [Grouping] source by key and applies the reducing [operation] to the
elements of each group\n * sequentially starting from the second element of the group,\n * passing the previously
accumulated value and
the current element as arguments,\n * and stores the results in the given [destination] map.\n * An initial value of
accumulator is the first element of the group.\n *\n * If the [destination] map already has a value corresponding to
the key of some group,\n * that value is used as an initial value of the accumulator for that group and the first
element of that group is also\n * subjected to the [operation].\n *\n * @param operation a function that is invoked on
each subsequent element of the group with the following parameters:\n * - `accumulator`: the current value of the
accumulator of the group;\n * - `element`: the element from the source being folded;\n *\n * @return the
[destination] map associating the key of each group with the result of accumulating the group elements.\n *
@sample samples.collections.Grouping.reduceByMaxVowelsTo\n */\n@SinceKotlin("1.1")\npublic inline fun <S,
T : S, K, M : MutableMap<in K, S>> Grouping<T, K>.reduceTo(\n  destination: M,\n  operation:
(key: K, accumulator: S, element: T) -> S\n): M =\n  aggregateTo(destination) { key, acc, e, first ->\n
@Suppress("UNCHECKED_CAST")\n    if (first) e else operation(key, acc as S, e)\n  }\n\n\n/**\n * Groups
elements from the [Grouping] source by key and counts elements in each group to the given [destination] map.\n *\n
* If the [destination] map already has a value corresponding to the key of some group,\n * that value is used as an
initial value of the counter for that group.\n *\n * @return the [destination] map associating the key of each group
with the count of elements in the group.\n *\n * @sample samples.collections.Grouping.groupingByEachCount\n
*/\n@SinceKotlin("1.1")\npublic fun <T, K, M : MutableMap<in K, Int>> Grouping<T,
K>.eachCountTo(destination: M): M =\n  foldTo(destination, 0) { acc, _ -> acc + 1 }\n\n\n/**\n * Groups
elements from the [Grouping] source by key and sums values provided by the [valueSelector] function for elements
in each group\n

```



contributors.\n \* Use

of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n \*\\npackage kotlin.math\\n\\nimport kotlin.internal.InlineOnly\\nimport kotlin.js.JsMath as nativeMath\\n\\n// region ===== Double Math =====\\n\\n\*\*

Computes the sine of the angle [x] given in radians.\n \*\\n \* Special cases:\n \* - `sin(NaN|+Inf|-Inf)` is `NaN`\n \*\\n@SinceKotlin("1.2")\\n@InlineOnly\\npublic actual inline fun sin(x: Double): Double =

nativeMath.sin(x)\\n\\n\*\* Computes the cosine of the angle [x] given in radians.\n \*\\n \* Special cases:\n \* - `cos(NaN|+Inf|-Inf)` is `NaN`\n \*\\n@SinceKotlin("1.2")\\n@InlineOnly\\npublic actual inline fun cos(x: Double): Double = nativeMath.cos(x)\\n\\n\*\* Computes the tangent of the angle [x] given in radians.\n \*\\n \* Special cases:\n \* - `tan(NaN|+Inf|-Inf)` is `NaN`\n \*\\n@SinceKotlin("1.2")\\n@InlineOnly\\npublic actual inline fun tan(x: Double): Double = nativeMath.tan(x)\\n\\n\*\*\\n

\* Computes the arc sine of the value [x];\n \* the returned value is an angle in the range from  $-\pi/2$  to  $\pi/2$  radians.\n \*\\n \* Special cases:\n \* - `asin(x)` is `NaN`, when  $abs(x) > 1$  or x is `NaN`\n \*\\n@SinceKotlin("1.2")\\n@InlineOnly\\npublic actual inline fun asin(x: Double): Double =

nativeMath.asin(x)\\n\\n\*\*\\n \* Computes the arc cosine of the value [x];\n \* the returned value is an angle in the range from  $0.0$  to  $\pi$  radians.\n \*\\n \* Special cases:\n \* - `acos(x)` is `NaN`, when  $abs(x) > 1$  or x is `NaN`\n \*\\n@SinceKotlin("1.2")\\n@InlineOnly\\npublic actual inline fun acos(x: Double): Double =

nativeMath.acos(x)\\n\\n\*\*\\n \* Computes the arc tangent of the value [x];\n \* the returned value is an angle in the range from  $-\pi/2$  to  $\pi/2$  radians.\n \*\\n \* Special cases:\n \* - `atan(NaN)` is `NaN`\n \*\\n@SinceKotlin("1.2")\\n@InlineOnly\\npublic actual inline fun atan(x: Double): Double =

nativeMath.atan(x)\\n\\n\*\*\\n \* Returns the angle  $\theta$  of the polar coordinates  $(r, \theta)$  that correspond\n \* to the rectangular coordinates  $(x, y)$  by computing the arc tangent of the value  $[y] / [x]$ ;\n \* the returned value is an angle in the range from  $-\pi$  to  $\pi$  radians.\n \*\\n \* Special cases:\n \* - `atan2(0.0, 0.0)` is  $0.0$ \n \* - `atan2(0.0, x)` is  $0.0$  for  $x > 0$  and  $\pi$  for  $x < 0$ \n \* - `atan2(-0.0, x)` is  $-0.0$  for  $x > 0$  and  $-\pi$  for  $x < 0$ \n \* - `atan2(y, +Inf)` is  $0.0$  for  $0 < y < +Inf$  and  $-0.0$  for  $-\text{Inf} < y < 0$ \n \* - `atan2(y, -Inf)` is  $\pi$  for  $0 < y < +Inf$  and  $-\pi$  for  $-\text{Inf} < y < 0$ \n \* - `atan2(y, 0.0)` is  $\pi/2$  for  $y > 0$  and  $-\pi/2$  for  $y < 0$ \n \* - `atan2(+Inf, x)` is  $\pi/2$  for finite  $x \neq 0$ \n \* - `atan2(-Inf, x)` is  $-\pi/2$  for finite  $x$ \n \* - `atan2(NaN, x)` and `atan2(y, NaN)` is `NaN`\n \*\\n@SinceKotlin("1.2")\\n@InlineOnly\\npublic actual inline fun atan2(y: Double, x: Double): Double = nativeMath.atan2(y, x)\\n\\n\*\*\\n \* Computes the hyperbolic sine of the value [x].\n \*\\n \* Special

cases:\n \* - `sinh(NaN)` is `NaN`\n \* - `sinh(+Inf)` is  $+\text{Inf}$ \n \* - `sinh(-Inf)` is  $-\text{Inf}$ \n \*\\n@SinceKotlin("1.2")\\n@InlineOnly\\npublic actual inline fun sinh(x: Double): Double = nativeSinh(x)\\n\\n\*\*\\n

\* Computes the hyperbolic cosine of the value [x].\n \*\\n \* Special cases:\n \* - `cosh(NaN)` is `NaN`\n \* - `cosh(+Inf|-Inf)` is  $+\text{Inf}$ \n \*\\n@SinceKotlin("1.2")\\n@InlineOnly\\npublic actual inline fun cosh(x: Double): Double = nativeCosh(x)\\n\\n\*\*\\n \* Computes the hyperbolic tangent of the value [x].\n \*\\n \* Special cases:\n \* - `tanh(NaN)` is `NaN`\n \* - `tanh(+Inf)` is  $1.0$ \n \* - `tanh(-Inf)` is  $-1.0$ \n \*\\n@SinceKotlin("1.2")\\n@InlineOnly\\npublic actual inline fun tanh(x: Double): Double =

nativeTanh(x)\\n\\n\*\*\\n \* Computes the inverse hyperbolic sine of the value [x].\n \*\\n \* The returned value is `y` such that  $\sinh(y) == x$ .\n \*\\n \* Special cases:\n \* - `asinh(NaN)` is `NaN`\n \* - `asinh(+Inf)` is  $+\text{Inf}$ \n \* - `asinh(-Inf)` is  $-\text{Inf}$ \n \*\\n@SinceKotlin("1.2")\\n@InlineOnly\\npublic

actual inline fun asinh(x: Double): Double = nativeAsinh(x)\\n\\n\*\*\\n \* Computes the inverse hyperbolic cosine of the value [x].\n \*\\n \* The returned value is positive `y` such that  $\cosh(y) == x$ .\n \*\\n \* Special cases:\n \* - `acosh(NaN)` is `NaN`\n \* - `acosh(x)` is `NaN` when  $x < 1$ \n \* - `acosh(+Inf)` is  $+\text{Inf}$ \n \*\\n@SinceKotlin("1.2")\\n@InlineOnly\\npublic actual inline fun acosh(x: Double): Double =

nativeAcosh(x)\\n\\n\*\*\\n \* Computes the inverse hyperbolic tangent of the value [x].\n \*\\n \* The returned value is `y` such that  $\tanh(y) == x$ .\n \*\\n \* Special cases:\n \* - `tanh(NaN)` is `NaN`\n \* - `tanh(x)` is `NaN` when  $x > 1$  or  $x < -1$ \n \* - `tanh(1.0)` is  $+\text{Inf}$ \n \* - `tanh(-1.0)` is  $-\text{Inf}$ \n \*\\n@SinceKotlin("1.2")\\n@InlineOnly\\npublic actual inline fun atanh(x: Double): Double =

nativeAtanh(x)\\n\\n\*\*

`nativeAtanh(x)` Computes  $\sqrt{x^2 + y^2}$  without intermediate overflow or underflow. Special cases: - returns `+Inf` if any of arguments is infinite - returns `NaN` if any of arguments is `NaN` and the other is not infinite

```

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun hypot(x: Double, y: Double): Double =
    nativeHypot(x, y)

```

`nativeHypot(x, y)` Computes the positive square root of the value  $\sqrt{x}$ . Special cases: -  $\sqrt{x}$  is `NaN` when  $x < 0$  or  $x$  is `NaN`

```

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun sqrt(x: Double): Double = nativeMath.sqrt(x)

```

`nativeMath.sqrt(x)` Computes Euler's number  $e$  raised to the power of the value  $x$ . Special cases: -  $\exp(\text{NaN})$  is `NaN` -  $\exp(+\text{Inf})$  is `+Inf` -  $\exp(-\text{Inf})$  is `0.0`

```

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun exp(x: Double): Double =
    nativeMath.exp(x)

```

`nativeMath.exp(x)` Computes  $\exp(x) - 1$ . This function can be implemented to produce more precise result for  $x$  near zero. Special cases: -  $\expm1(\text{NaN})$  is `NaN` -  $\expm1(+\text{Inf})$  is `+Inf`

```

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun expm1(x: Double): Double = nativeExpM1(x)

```

`nativeExpM1(x)` Computes the logarithm of the value  $x$  to the given  $[\text{base}]$ . Special cases: -  $\log(x, b)$  is `NaN` if either  $x$  or  $b$  are `NaN` -  $\log(x, b)$  is `NaN` when  $x < 0$  or  $b \leq 0$  or  $b == 1.0$  -  $\log(+\text{Inf}, +\text{Inf})$  is `NaN` -  $\log(+\text{Inf}, b)$  is `+Inf` for  $b > 1$  and `-Inf` for  $b < 1$  -  $\log(0.0, b)$  is `-Inf` for  $b > 1$  and `+Inf` for  $b > 1$ . See also logarithm functions for common fixed bases: `[ln]`, `[log10]` and `[log2]`.

```

@SinceKotlin("1.2")
public actual fun log(x: Double, base: Double): Double {
    if (base <= 0.0 || base == 1.0) return Double.NaN
    return nativeMath.log(x) / nativeMath.log(base)
}

```

`nativeMath.log(x)` Computes the natural logarithm (base  $E$ ) of the value  $x$ . Special cases: -  $\ln(\text{NaN})$  is `NaN` -  $\ln(x)$  is `NaN` when  $x < 0.0$

```

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun ln(x: Double): Double = nativeMath.log(x)

```

`nativeMath.log(x)` Computes the common logarithm (base 10) of the value  $x$ .

```

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun log10(x: Double): Double = nativeLog10(x)

```

`nativeLog10(x)` Computes the binary logarithm (base 2) of the value  $x$ .

```

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun log2(x: Double): Double = nativeLog2(x)

```

`nativeLog2(x)` Computes  $\ln(x + 1)$ . This function can be implemented to produce more precise result for  $x$  near zero. Special cases: -  $\ln1p(\text{NaN})$  is `NaN` -  $\ln1p(x)$  is `NaN` where  $x < -1.0$  -  $\ln1p(-1.0)$  is `-Inf` -  $\ln1p(+\text{Inf})$  is `+Inf`

```

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun ln1p(x: Double): Double = nativeLog1p(x)

```

`nativeLog1p(x)` Rounds the given value  $x$  to an integer towards positive infinity.

```

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun ceil(x: Double): Double =
    nativeMath.ceil(x)

```

`nativeMath.ceil(x)` Rounds the given value  $x$  to an integer towards negative infinity.

```

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun floor(x: Double): Double =
    nativeMath.floor(x)

```

`nativeMath.floor(x)` Rounds the given value  $x$  to an integer towards zero.

```

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun truncate(x: Double): Double =
    nativeMath.floor(x)

```

`nativeMath.floor(x)` Returns the value  $x$  having its fractional part truncated. Special cases: -  $\text{truncate}(x)$  is  $x$  where  $x$  is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.

```

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun truncate(x: Double): Double =
    nativeTrunc(x)

```

`nativeTrunc(x)` Rounds the given value  $x$  towards the closest integer with ties rounded towards even integer. Special cases: -  $\text{round}(x)$  is  $x$  where  $x$  is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.

```

@SinceKotlin("1.2")
public actual fun round(x: Double): Double {
    if (x % 0.5 != 0.0) {
        return nativeMath.round(x)
    }
    val floor = floor(x)
    return if (floor % 2 == 0.0) floor else
        ceil(x)
}

```

`nativeMath.round(x)` Returns the absolute value of the given value  $x$ . Special cases: -  $\text{abs}(\text{NaN})$  is `NaN`

```

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun abs(x: Double): Double =
    nativeMath.abs(x)

```

`nativeMath.abs(x)` @see `absoluteValue` extension property for `[Double]`

```

*^@SinceKotlin("1.2")@InlineOnly\npublic actual inline fun abs(x:
Double): Double = nativeMath.abs(x)\n\n/**\n * Returns the sign of the given value [x]:\n * - `1.0` if the value is
negative,\n * - zero if the value is zero,\n * - `1.0` if the value is positive\n *\n * Special case:\n * - `sign(NaN)`
is `NaN`\n *\n^@SinceKotlin("1.2")@InlineOnly\npublic actual inline fun sign(x: Double): Double =
nativeSign(x)\n\n/**\n * Returns the smaller of two values.\n *\n * If either value is `NaN`, then the result is
`NaN`.\n *\n^@SinceKotlin("1.2")@InlineOnly\npublic actual inline fun min(a: Double, b: Double): Double =
nativeMath.min(a, b)\n\n/**\n * Returns the greater of two values.\n *\n * If either value is `NaN`, then the result is
`NaN`.\n *\n^@SinceKotlin("1.2")@InlineOnly\npublic actual inline fun max(a: Double, b: Double): Double =
nativeMath.max(a, b)\n\n/**\n * Returns the cube root of [x]. For any `x`, `cbrt(-x) == -cbrt(x)`;\n * that is, the
cube root of a negative value is the negative of the cube root\n * of that
value's magnitude. Special cases:\n *\n * Special cases:\n * - If the argument is `NaN`, then the result is `NaN`.\n
* - If the argument is infinite, then the result is an infinity with the same sign as the argument.\n * - If the
argument is zero, then the result is a zero with the same sign as the argument.\n
*\n^@SinceKotlin("1.8")@WasExperimental(ExperimentalStdlibApi::class)\n@InlineOnly\npublic actual inline
fun cbrt(x: Double): Double = nativeMath.cbrt(x)\n\n// extensions\n\n/**\n * Raises this value to the power [x].\n
*\n * Special cases:\n * - `b.pow(0.0)` is `1.0`\n * - `b.pow(1.0) == b`\n * - `b.pow(NaN)` is `NaN`\n * -
`NaN.pow(x)` is `NaN` for `x != 0.0`\n * - `b.pow(Inf)` is `NaN` for `abs(b) == 1.0`\n * - `b.pow(x)` is `NaN` for
`b < 0` and `x` is finite and not an integer\n *\n^@SinceKotlin("1.2")@InlineOnly\npublic actual inline fun
Double.pow(x: Double): Double = nativeMath.pow(this, x)\n\n/**\n * Raises this value to the integer power [n].\n
*\n * See the other overload of [pow] for details.\n *\n^@SinceKotlin("1.2")@InlineOnly\npublic actual inline
fun Double.pow(n: Int): Double = nativeMath.pow(this, n.toDouble())\n\n/**\n * Returns the absolute value of this
value.\n *\n * Special cases:\n * - `NaN.absoluteValue` is `NaN`\n *\n * @see abs function\n
*\n^@SinceKotlin("1.2")@InlineOnly\npublic actual inline val Double.absoluteValue: Double get() =
nativeMath.abs(this)\n\n/**\n * Returns the sign of this value:\n * - `1.0` if the value is negative,\n * - zero if the
value is zero,\n * - `1.0` if the value is positive\n *\n * Special case:\n * - `NaN.sign` is `NaN`\n
*\n^@SinceKotlin("1.2")@InlineOnly\npublic actual inline val Double.sign: Double get() =
nativeSign(this)\n\n/**\n * Returns this value with the sign bit same as of the [sign] value.\n
*\n^@SinceKotlin("1.2")@InlineOnly\npublic actual inline fun Double.withSign(sign: Int): Double =
this.withSign(sign.toDouble())\n\n/**\n * Returns
the ulp (unit in the last place) of this value.\n *\n * An ulp is a positive distance between this value and the next
nearest [Double] value larger in magnitude.\n *\n * Special Cases:\n * - `NaN.ulp` is `NaN`\n * - `x.ulp` is `+Inf`
when `x` is `+Inf` or `-Inf`\n * - `0.0.ulp` is `Double.MIN_VALUE`\n *\n^@SinceKotlin("1.2")\npublic actual val
Double.ulp: Double get() = when {\n this < 0 -> (-this).ulp\n this.isNaN() || this ==
Double.POSITIVE_INFINITY -> this\n this == Double.MAX_VALUE -> this - this.nextDown()\n else ->
this.nextUp() - this}\n\n/**\n * Returns the [Double] value nearest to this value in direction of positive infinity.\n
*\n^@SinceKotlin("1.2")\npublic actual fun Double.nextUp(): Double = when {\n this.isNaN() || this ==
Double.POSITIVE_INFINITY -> this\n this == 0.0 -> Double.MIN_VALUE\n else ->
Double.fromBits(this.toRawBits() + if (this > 0) 1 else -1)\n}\n\n/**\n * Returns the [Double] value nearest to this
value in direction of negative
infinity.\n *\n^@SinceKotlin("1.2")\npublic actual fun Double.nextDown(): Double = when {\n this.isNaN() ||
this == Double.NEGATIVE_INFINITY -> this\n this == 0.0 -> -Double.MIN_VALUE\n else ->
Double.fromBits(this.toRawBits() + if (this > 0) -1 else 1)\n}\n\n/**\n * Returns the [Double] value nearest to this
value in direction from this value towards the value [to].\n *\n * Special cases:\n * - `x.nextTowards(y)` is `NaN` if
either `x` or `y` are `NaN`\n * - `x.nextTowards(x) == x`\n *\n^@SinceKotlin("1.2")\npublic actual fun
Double.nextTowards(to: Double): Double = when {\n this.isNaN() || to.isNaN() -> Double.NaN\n to == this ->
to\n to > this -> this.nextUp()\n else /* to < this */ -> this.nextDown()\n}\n\n/**\n * Rounds this [Double]
value to the nearest integer and converts the result to [Int].\n *\n * Ties are rounded towards positive infinity.\n *\n
* Special cases:\n * - `x.roundToInt() == Int.MAX_VALUE` when `x > Int.MAX_VALUE`\n *

```

```

- `x.roundToInt() == Int.MIN_VALUE` when `x < Int.MIN_VALUE`
`n` * @throws IllegalArgumentException
when this value is `NaN`
`n` * @SinceKotlin("1.2")
`n` public actual fun Double.roundToInt(): Int = when {
`n` isNaN() -> throw IllegalArgumentException("Cannot round NaN value.")
`n` this > Int.MAX_VALUE ->
Int.MAX_VALUE
`n` this < Int.MIN_VALUE -> Int.MIN_VALUE
`n` else ->
nativeMath.round(this).toInt()
`n` }
`n` * Rounds this [Double] value to the nearest integer and converts the
result to [Long].
`n` * Ties are rounded towards positive infinity.
`n` * Special cases:
`n` * - `x.roundToLong() ==
Long.MAX_VALUE` when `x > Long.MAX_VALUE`
`n` * - `x.roundToLong() == Long.MIN_VALUE` when `x
< Long.MIN_VALUE`
`n` * @throws IllegalArgumentException when this value is `NaN`
`n` * @SinceKotlin("1.2")
`n` public actual fun Double.roundToLong(): Long = when {
`n` isNaN() -> throw
IllegalArgumentException("Cannot round NaN value.")
`n` this > Long.MAX_VALUE -> Long.MAX_VALUE
`n` this
< Long.MIN_VALUE -> Long.MIN_VALUE
`n` else -> nativeMath.round(this).toLong()
`n` }
`n` //
endregion
`n` // region ===== Float Math
=====
`n` * Computes the sine of the angle [x] given in
radians.
`n` * Special cases:
`n` * - `sin(NaN|+Inf|-Inf)` is `NaN`
`n` * @SinceKotlin("1.2")
`n` @InlineOnly
`n` public actual inline fun sin(x: Float): Float =
nativeMath.sin(x.toDouble()).toFloat()
`n` * Computes the cosine of the angle [x] given in radians.
`n` * Special
cases:
`n` * - `cos(NaN|+Inf|-Inf)` is `NaN`
`n` * @SinceKotlin("1.2")
`n` @InlineOnly
`n` public actual inline fun
cos(x: Float): Float = nativeMath.cos(x.toDouble()).toFloat()
`n` * Computes the tangent of the angle [x] given in
radians.
`n` * Special cases:
`n` * - `tan(NaN|+Inf|-Inf)` is `NaN`
`n` * @SinceKotlin("1.2")
`n` @InlineOnly
`n` public actual inline fun tan(x: Float): Float =
nativeMath.tan(x.toDouble()).toFloat()
`n` * Computes the arc sine of the value [x];
`n` *
* the returned value is an angle in the range from  $-\pi/2$  to  $\pi/2$  radians.
`n` * Special cases:
`n` * - `asin(x)` is
`NaN`, when  $abs(x) > 1$  or x is `NaN`
`n` * @SinceKotlin("1.2")
`n` @InlineOnly
`n` public actual inline fun asin(x:
Float): Float = nativeMath.asin(x.toDouble()).toFloat()
`n` * Computes the arc cosine of the value [x];
`n` * the
returned value is an angle in the range from  $0.0$  to  $\pi$  radians.
`n` * Special cases:
`n` * - `acos(x)` is `NaN`,
when  $abs(x) > 1$  or x is `NaN`
`n` * @SinceKotlin("1.2")
`n` @InlineOnly
`n` public actual inline fun acos(x: Float):
Float = nativeMath.acos(x.toDouble()).toFloat()
`n` * Computes the arc tangent of the value [x];
`n` * the
returned value is an angle in the range from  $-\pi/2$  to  $\pi/2$  radians.
`n` * Special cases:
`n` * - `atan(NaN)` is
`NaN`
`n` * @SinceKotlin("1.2")
`n` @InlineOnly
`n` public actual inline fun atan(x: Float): Float =
nativeMath.atan(x.toDouble()).toFloat()
`n` * Returns the angle `theta` of the polar
coordinates `(r, theta)` that correspond
`n` * to the rectangular coordinates `(x, y)` by computing the arc tangent of
the value  $y / x$ ;
`n` * the returned value is an angle in the range from  $-\pi$  to  $\pi$  radians.
`n` * Special cases:
`n` *
- `atan2(0.0, 0.0)` is  $0.0$ 
`n` * - `atan2(0.0, x)` is  $0.0$  for  $x > 0$  and  $\pi$  for  $x < 0$ 
`n` * - `atan2(-0.0, x)` is  $-0.0$  for  $x > 0$  and  $-\pi$  for  $x < 0$ 
`n` * - `atan2(y, +Inf)` is  $0.0$  for  $0 < y < +Inf$  and  $-0.0$  for  $-\inf < y < 0$ 
`n` * - `atan2(y, -Inf)` is  $\pi$  for  $0 < y < +Inf$  and  $-\pi$  for  $-\inf < y < 0$ 
`n` * - `atan2(y, 0.0)` is  $\pi/2$  for  $y > 0$  and  $-\pi/2$  for  $y < 0$ 
`n` * - `atan2(+Inf, x)` is  $\pi/2$  for finite  $x$ 
`n` * - `atan2(-Inf, x)` is  $-\pi/2$  for finite  $x$ 
`n` * -
`atan2(NaN, x)` and `atan2(y, NaN)` is `NaN`
`n` * @SinceKotlin("1.2")
`n` @InlineOnly
`n` public actual inline fun
atan2(y: Float, x: Float): Float = nativeMath.atan2(y.toDouble(), x.toDouble()).toFloat()
`n` * Computes the
hyperbolic sine of
the value [x].
`n` * Special cases:
`n` * - `sinh(NaN)` is `NaN`
`n` * - `sinh(+Inf)` is  $+\inf$ 
`n` * - `sinh(-Inf)` is  $-\inf$ 
`n` * @SinceKotlin("1.2")
`n` @InlineOnly
`n` public actual inline fun sinh(x: Float): Float =
nativeSinh(x.toDouble()).toFloat()
`n` * Computes the hyperbolic cosine of the value [x].
`n` * Special
cases:
`n` * - `cosh(NaN)` is `NaN`
`n` * - `cosh(+Inf|-Inf)` is  $+\inf$ 
`n` * @SinceKotlin("1.2")
`n` @InlineOnly
`n` public actual inline fun cosh(x: Float): Float =
nativeCosh(x.toDouble()).toFloat()
`n` * Computes the hyperbolic tangent of the value [x].
`n` * Special
cases:
`n` * - `tanh(NaN)` is `NaN`
`n` * - `tanh(+Inf)` is  $1.0$ 
`n` * - `tanh(-Inf)` is  $-1.0$ 
`n` * @SinceKotlin("1.2")
`n` @InlineOnly
`n` public actual inline fun tanh(x: Float): Float =

```

`nativeTanh(x.toDouble()).toFloat()` Computes the inverse hyperbolic sine of the value [x]. The returned value is `y` such that `sinh(y) == x`. Special cases: `asinh(NaN)` is `NaN`, `asinh(+Inf)` is `+Inf`, `asinh(-Inf)` is `-Inf`.

```

@SinceKotlin("1.2")@InlineOnly@public actual inline fun asinh(x: Float): Float =
nativeAsinh(x.toDouble()).toFloat()
    
```

`nativeAsinh(x.toDouble()).toFloat()` Computes the inverse hyperbolic cosine of the value [x]. The returned value is positive `y` such that `cosh(y) == x`. Special cases: `acosh(NaN)` is `NaN`, `acosh(x)` is `NaN` when `x < 1`, `acosh(+Inf)` is `+Inf`, `acosh(-Inf)` is `-Inf`.

```

@SinceKotlin("1.2")@InlineOnly@public actual inline fun acosh(x: Float): Float = nativeAcosh(x.toDouble()).toFloat()
    
```

`nativeAtanh(x.toDouble()).toFloat()` Computes the inverse hyperbolic tangent of the value [x]. The returned value is `y` such that `tanh(y) == x`. Special cases: `atanh(NaN)` is `NaN`, `atanh(x)` is `NaN` when `x > 1` or `x < -1`, `atanh(1.0)` is `+Inf`, `atanh(-1.0)` is `-Inf`.

```

@SinceKotlin("1.2")@InlineOnly@public actual inline fun atanh(x: Float): Float = nativeAtanh(x.toDouble()).toFloat()
    
```

`hypot(x: Float, y: Float): Float` Computes `sqrt(x2 + y2)` without intermediate overflow or underflow. Special cases: returns `+Inf` if any of arguments is infinite, returns `NaN` if any of arguments is `NaN` and the other is not infinite.

```

@SinceKotlin("1.2")@InlineOnly@public actual inline fun hypot(x: Float, y: Float): Float = nativeHypot(x.toDouble(), y.toDouble()).toFloat()
    
```

`sqrt(x: Float): Float` Computes the positive square root of the value [x]. Special cases: `sqrt(x)` is `NaN` when `x < 0` or `x` is `NaN`.

```

@SinceKotlin("1.2")@InlineOnly@public actual inline fun sqrt(x: Float): Float = nativeMath.sqrt(x.toDouble()).toFloat()
    
```

`exp(x: Float): Float` Computes Euler's number `e` raised to the power of the value [x]. Special cases: `exp(NaN)` is `NaN`, `exp(+Inf)` is `+Inf`, `exp(-Inf)` is `0.0`.

```

@SinceKotlin("1.2")@InlineOnly@public actual inline fun exp(x: Float): Float = nativeMath.exp(x.toDouble()).toFloat()
    
```

`expm1(x: Float): Float` Computes `exp(x) - 1`. This function can be implemented to produce more precise result for [x] near zero. Special cases: `expm1(NaN)` is `NaN`, `expm1(+Inf)` is `+Inf`, `expm1(-Inf)` is `-1.0`. @see [exp] function.

```

@SinceKotlin("1.2")@InlineOnly@public actual inline fun expm1(x: Float): Float = nativeExpm1(x.toDouble()).toFloat()
    
```

`log(x: Float, base: Float): Float` Computes the logarithm of the value [x] to the given [base]. Special cases: `log(x, b)` is `NaN` if either `x` or `b` are `NaN`, `log(x, b)` is `NaN` when `x < 0` or `b <= 0` or `b == 1.0`, `log(+Inf, +Inf)` is `NaN`, `log(+Inf, b)` is `+Inf` for `b > 1` and `-Inf` for `b < 1`, `log(0.0, b)` is `-Inf` for `b > 1` and `+Inf` for `b > 1`. See also logarithm functions for common fixed bases: [ln], [log10] and [log2].

```

@SinceKotlin("1.2")@InlineOnly@public actual inline fun log(x: Float, base: Float): Float = log(x.toDouble(), base.toDouble()).toFloat()
    
```

`ln(x: Float): Float` Computes the natural logarithm (base `E`) of the value [x]. Special cases: `ln(NaN)` is `NaN`, `ln(x)` is `NaN` when `x < 0.0`, `ln(+Inf)` is `+Inf`, `ln(0.0)` is `-Inf`.

```

@SinceKotlin("1.2")@InlineOnly@public actual inline fun ln(x: Float): Float = nativeMath.log(x.toDouble()).toFloat()
    
```

`log10(x: Float): Float` Computes the common logarithm (base 10) of the value [x]. @see [ln] function for special cases.

```

@SinceKotlin("1.2")@InlineOnly@public actual inline fun log10(x: Float): Float = nativeLog10(x.toDouble()).toFloat()
    
```

`log2(x: Float): Float` Computes the binary logarithm (base 2) of the value [x]. @see [ln] function for special cases.

```

@SinceKotlin("1.2")@InlineOnly@public actual inline fun log2(x: Float): Float = nativeLog2(x.toDouble()).toFloat()
    
```

`ln1p(x: Float): Float` Computes `ln(x + 1)`. This function can be implemented to produce more precise result for [x] near zero. Special cases: `ln1p(NaN)` is `NaN`, `ln1p(x)` is `NaN` where `x < -1.0`, `ln1p(-1.0)` is `-Inf`, `ln1p(+Inf)` is `+Inf`. @see [ln] function, @see [expm1] function.

```

@SinceKotlin("1.2")@InlineOnly@public actual inline fun ln1p(x: Float): Float = nativeLog1p(x.toDouble()).toFloat()
    
```

`ceil(x: Float): Float` Rounds the given value [x] to an integer towards positive infinity. @return the smallest Float value that is greater than or equal to the given value [x] and is a mathematical integer. Special cases: `ceil(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.

```

@SinceKotlin("1.2")@InlineOnly@public actual inline fun ceil(x: Float): Float = nativeMath.ceil(x.toDouble()).toFloat()
    
```

`floor(x: Float): Float` Rounds the given value [x] to an integer towards negative infinity. @return the largest Float value that is smaller than or equal to the given



value [x] and is a mathematical integer.

`floor(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.

```

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun floor(x: Float): Float =
    nativeMath.floor(x.toDouble()).toFloat()

```

Rounds the given value [x] to an integer towards zero.

@return the value [x] having its fractional part truncated.

Special cases:

- `truncate(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.

```

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun truncate(x: Float): Float = truncate(x.toDouble()).toFloat()

```

Rounds the given value [x] towards the closest integer with ties rounded towards even integer.

Special cases:

- `round(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.

```

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun round(x: Float): Float =
    round(x.toDouble()).toFloat()

```

Returns the absolute value of the given value [x].

Special cases:

- `abs(NaN)` is `NaN`

@see `absoluteValue` extension property for `[Float]`

```

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun abs(x: Float): Float =
    nativeMath.abs(x.toDouble()).toFloat()

```

Returns the sign of the given value [x]:

- `-1.0` if the value is negative,
- zero if the value is zero,
- `1.0` if the value is positive

Special case:

- `sign(NaN)` is `NaN`

```

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun sign(x: Float): Float =
    nativeSign(x.toDouble()).toFloat()

```

Returns the smaller of two values.

- If either value is `NaN`, then the result is `NaN`.

```

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun min(a: Float, b: Float): Float =
    nativeMath.min(a, b)

```

Returns the greater of two values.

- If either value is `NaN`, then the result is `NaN`.

```

@SinceKotlin("1.2")
@InlineOnly
public actual
    inline fun max(a: Float, b: Float): Float = nativeMath.max(a, b)

```

Returns the cube root of [x]. For any `x`, `cbert(-x) == -cbert(x)`; that is, the cube root of a negative value is the negative of the cube root of that value's magnitude.

Special cases:

- If the argument is `NaN`, then the result is `NaN`.
- If the argument is infinite, then the result is an infinity with the same sign as the argument.
- If the argument is zero, then the result is a zero with the same sign as the argument.

```

@SinceKotlin("1.8")
@WasExperimental(ExperimentalStdlibApi::class)
@InlineOnly
public actual inline fun cbert(x: Float): Float = nativeMath.cbert(x.toDouble()).toFloat()

```

Raises this value to the power [x].

Special cases:

- `b.pow(0.0)` is `1.0`
- `b.pow(1.0) == b`
- `b.pow(NaN)` is `NaN`
- `NaN.pow(x)` is `NaN` for `x != 0.0`
- `b.pow(Inf)` is `NaN` for `abs(b) == 1.0`
- `b.pow(x)` is `NaN` for `b < 0` and `x` is finite and not an integer

```

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun Float.pow(x: Float): Float =
    nativeMath.pow(this.toDouble(), x.toDouble()).toFloat()

```

Raises this value to the integer power [n].

See the other overload of `[pow]` for details.

```

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun Float.pow(n: Int): Float = nativeMath.pow(this.toDouble(), n.toDouble()).toFloat()

```

Returns the absolute value of this value.

Special cases:

- `NaN.absoluteValue` is `NaN`

@see `abs` function

```

@SinceKotlin("1.2")
@InlineOnly
public actual inline val Float.absoluteValue: Float get() =
    nativeMath.abs(this.toDouble()).toFloat()

```

Returns the sign of this value:

- `-1.0` if the value is negative,
- zero if the value is zero,
- `1.0` if the value is positive

Special case:

- `NaN.sign` is `NaN`

```

@SinceKotlin("1.2")
@InlineOnly
public
    actual inline val Float.sign: Float get() = nativeSign(this.toDouble()).toFloat()

```

Returns this value with the sign bit same as of the [sign] value.

- If [sign] is `NaN` the sign of the result is undefined.

```

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun Float.withSign(sign: Float): Float =
    this.toDouble().withSign(sign.toDouble()).toFloat()

```

Returns this value with the sign bit same as of the [sign] value.

```

@SinceKotlin("1.2")
@InlineOnly
public actual inline fun Float.withSign(sign: Int): Float =
    this.toDouble().withSign(sign.toDouble()).toFloat()

```

Rounds this [Float] value to the nearest integer and converts the result to [Int].

- Ties are rounded towards positive infinity.

Special cases:

- `x.roundToInt() == Int.MAX_VALUE` when `x > Int.MAX_VALUE`
- `x.roundToInt() == Int.MIN_VALUE` when `x < Int.MIN_VALUE`

@throws `IllegalArgumentException` when this value

```

is `NaN`
*/@SinceKotlin("1.2")@InlineOnly
public actual inline fun Float.roundToInt(): Int =
toDouble().roundToInt()
/**
 * Rounds this [Float] value to the nearest integer and converts the result to
[Long].
 * Ties are rounded towards positive infinity.
 */
 * Special cases:
 * - `x.roundToLong() ==
Long.MAX_VALUE` when `x > Long.MAX_VALUE`
 * - `x.roundToLong() == Long.MIN_VALUE` when `x
< Long.MIN_VALUE`
 */
 * @throws IllegalArgumentException when this value is `NaN`
*/@SinceKotlin("1.2")@InlineOnly
public actual inline fun Float.roundToLong(): Long =
toDouble().roundToLong()
// endregion
// region ===== Integer Math
=====
*/
 * Returns the absolute value of the given value
[n].
 * Special cases:
 * - `abs(Int.MIN_VALUE)` is `Int.MIN_VALUE` due to an overflow
 */
 * @see
absoluteValue extension property for [Int]
*/@TODO: remove manual 'or' when KT-19290 is
fixed
*/@SinceKotlin("1.2")
public
actual fun abs(n: Int): Int = if (n < 0) (-n or 0) else n
/**
 * Returns the smaller of two values.
 */
*/@SinceKotlin("1.2")@InlineOnly
public actual inline fun min(a: Int, b: Int): Int = nativeMath.min(a,
b)
/**
 * Returns the greater of two values.
 */
*/@SinceKotlin("1.2")@InlineOnly
public actual inline fun
max(a: Int, b: Int): Int = nativeMath.max(a, b)
/**
 * Returns the absolute value of this value.
 */
 * Special
cases:
 * - `Int.MIN_VALUE.absoluteValue` is `Int.MIN_VALUE` due to an overflow
 */
 * @see abs
function
*/@SinceKotlin("1.2")@InlineOnly
public actual inline val Int.absoluteValue: Int get() =
abs(this)
/**
 * Returns the sign of this value:
 * - `-1` if the value is negative,
 * - `0` if the value is zero,
 * - `1` if the value is positive
 */
*/@SinceKotlin("1.2")
public actual val Int.sign: Int get() = when {
this <
0 -> -1
this > 0 -> 1
else -> 0
}
/**
 * Returns the
absolute value of the given value [n].
 * Special cases:
 * - `abs(Long.MIN_VALUE)` is
`Long.MIN_VALUE` due to an overflow
 */
 * @see absoluteValue extension property for [Long]
*/@SinceKotlin("1.2")
public actual fun abs(n: Long): Long = if (n < 0) -n else n
/**
 * Returns the smaller
of two values.
 */
*/@SinceKotlin("1.2")@Suppress("NOTHING_TO_INLINE")
public actual inline fun
min(a: Long, b: Long): Long = if (a <= b) a else b
/**
 * Returns the greater of two values.
 */
*/@SinceKotlin("1.2")@Suppress("NOTHING_TO_INLINE")
public actual inline fun max(a: Long, b:
Long): Long = if (a >= b) a else b
/**
 * Returns the absolute value of this value.
 */
 * Special cases:
 * -
`Long.MIN_VALUE.absoluteValue` is `Long.MIN_VALUE` due to an overflow
 */
 * @see abs function
*/@SinceKotlin("1.2")@InlineOnly
public actual inline val Long.absoluteValue: Long get() =
abs(this)
/**
 * Returns the sign of this value:
 * - `-1` if the
value is negative,
 * - `0` if the value is zero,
 * - `1` if the value is positive
 */
*/@SinceKotlin("1.2")
public actual val Long.sign: Int get() = when {
this < 0 -> -1
this > 0 -> 1
else -> 0
}
// endregion
"/
 * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language
contributors.
 * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.
*/@package kotlin
/**
 * Returns `true` if the specified number is a
 * Not-a-
Number (NaN) value, `false` otherwise.
 */
*/@public actual fun Double.isNaN(): Boolean = this != this
/**
 * Returns `true` if the specified number is a
 * Not-a-Number (NaN) value, `false` otherwise.
 */
*/@public actual fun
Float.isNaN(): Boolean = this != this
/**
 * Returns `true` if this value is infinitely large in magnitude.
 */
*/@public actual fun Double.isInfinite(): Boolean = this == Double.POSITIVE_INFINITY || this ==
Double.NEGATIVE_INFINITY
/**
 * Returns `true` if this value is infinitely large in magnitude.
 */
*/@public actual fun Float.isInfinite(): Boolean =
this == Float.POSITIVE_INFINITY || this == Float.NEGATIVE_INFINITY
/**
 * Returns `true` if the
argument is a finite floating-point value; returns `false` otherwise (for `NaN` and infinity arguments).
 */
*/@public
actual fun Double.isFinite(): Boolean = !isInfinite() && !isNaN()
/**
 * Returns `true` if the argument is a finite
floating-point value; returns `false` otherwise (for `NaN` and infinity arguments).
 */
*/@public actual fun
Float.isFinite(): Boolean = !isInfinite() && !isNaN()
/**
 * Counts the number of set bits in the binary
representation of this [Int] number.
 */
*/@SinceKotlin("1.4")@WasExperimental(ExperimentalStdlibApi::class)
public actual fun

```

```

Int.countOneBits(): Int {
    // Hacker's Delight 5-1 algorithm
    var v = this
    v = (v and 0x55555555) +
    (v.ushr(1) and 0x55555555)
    v = (v and 0x33333333) + (v.ushr(2)
    and 0x33333333)
    v = (v and 0x0F0F0F0F) + (v.ushr(4) and 0x0F0F0F0F)
    v = (v and 0x00FF00FF) +
    (v.ushr(8) and 0x00FF00FF)
    v = (v and 0x0000FFFF) + (v.ushr(16))
    return v
}

Counts the number of consecutive most significant bits that are zero in the binary representation of this [Int] number.

@SinceKotlin("1.4")
@WasExperimental(ExperimentalStdlibApi::class)
@kotlin.internal.InlineOnly
public actual inline fun Int.countLeadingZeroBits(): Int = nativeClz32(this)

Counts the number of consecutive least significant bits that are zero in the binary representation of this [Int] number.

@SinceKotlin("1.4")
@WasExperimental(ExperimentalStdlibApi::class)
public actual fun Int.countTrailingZeroBits(): Int =
    // Hacker's Delight 5-4 algorithm for expressing countTrailingZeroBits with
    countLeadingZeroBits
    Int.SIZE_BITS - (this or -this).inv().countLeadingZeroBits()

Returns a number having a single bit set in the position of the most significant set bit of this [Int] number, or zero, if this number is zero.

@SinceKotlin("1.4")
@WasExperimental(ExperimentalStdlibApi::class)
public actual fun Int.takeHighestOneBit(): Int =
    if (this == 0) 0 else 1.shl(Int.SIZE_BITS - 1 - countLeadingZeroBits())

Returns a number having a single bit set in the position of the least significant set bit of this [Int] number, or zero, if this number is zero.

@SinceKotlin("1.4")
@WasExperimental(ExperimentalStdlibApi::class)
public actual fun Int.takeLowestOneBit(): Int =
    // Hacker's Delight 2-1 algorithm for isolating rightmost 1-bit
    this and -this

Rotates the binary representation of this [Int] number left by the specified [bitCount] number of bits. The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side. Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count: number.rotateLeft(-n) == number.rotateRight(n)

Rotating by a multiple of [Int.SIZE_BITS] (32) returns the same number, or more generally number.rotateLeft(n % 32)

@SinceKotlin("1.6")
@WasExperimental(ExperimentalStdlibApi::class)
public actual fun Int.rotateLeft(bitCount: Int): Int =
    shl(bitCount) or ushr(Int.SIZE_BITS - bitCount)

Rotates the binary representation of this [Int] number right by the specified [bitCount] number of bits. The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side. Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count: number.rotateRight(-n) == number.rotateLeft(n)

Rotating by a multiple of [Int.SIZE_BITS] (32) returns the same number, or more generally number.rotateRight(n) == number.rotateRight(n % 32)

@SinceKotlin("1.6")
@WasExperimental(ExperimentalStdlibApi::class)
public actual fun Int.rotateRight(bitCount: Int): Int =
    shl(Int.SIZE_BITS - bitCount) or ushr(bitCount)

Counts the number of set bits in the binary representation of this [Long] number.

@SinceKotlin("1.4")
@WasExperimental(ExperimentalStdlibApi::class)
public actual fun Long.countOneBits(): Int =
    high.countOneBits() + low.countOneBits()

Counts the number of consecutive most significant bits that are zero in the binary representation of this [Long] number.

@SinceKotlin("1.4")
@WasExperimental(ExperimentalStdlibApi::class)
public actual fun Long.countLeadingZeroBits(): Int =
    when (val high = this.high) {
        0 -> Int.SIZE_BITS + low.countLeadingZeroBits()
        else -> high.countLeadingZeroBits()
    }

Counts the number of consecutive least significant bits that are zero in the binary representation of this [Long] number.

@SinceKotlin("1.4")
@WasExperimental(ExperimentalStdlibApi::class)
public actual fun Long.countTrailingZeroBits(): Int =
    when (val low = this.low) {
        0 -> Int.SIZE_BITS + high.countTrailingZeroBits()
        else -> low.countTrailingZeroBits()
    }

Returns a number having a single bit set in the position of the most significant set bit of this [Long] number, or zero, if this number is zero.

@SinceKotlin("1.4")
@WasExperimental(ExperimentalStdlibApi::class)
public actual fun Long.takeHighestOneBit(): Long =
    when (val high = this.high) {
        0 -> Long(low.takeHighestOneBit(),

```

```

0)\n    else -> Long(0, high.takeHighestOneBit())\n    }\n\n/**\n * Returns a number having a single bit set in the\n position of the least significant set bit of this [Long] number,\n * or zero, if this number is zero.\n *\n @SinceKotlin("1.4")\n @WasExperimental(ExperimentalStdlibApi::class)\n public actual fun\n Long.takeLowestOneBit(): Long =\n    when (val low = this.low)\n    {\n        0 -> Long(0, high.takeLowestOneBit())\n        else -> Long(low.takeLowestOneBit(), 0)\n    }\n\n/**\n * Rotates the binary representation of this [Long] number left by the specified [bitCount] number of bits.\n * The most\n significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n *\n `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [Long.SIZE_BITS] (64) returns\n the same number, or more generally\n *\n `number.rotateLeft(n) == number.rotateLeft(n % 64)`\n *\n @SinceKotlin("1.6")\n @WasExperimental(ExperimentalStdlibApi::class)\n public actual fun\n Long.rotateLeft(bitCount: Int): Long {\n    if ((bitCount and 31) != 0) {\n        val low = this.low\n        val high =\n this.high\n        val newLow = low.shl(bitCount) or high.ushr(-bitCount)\n        val newHigh = high.shl(bitCount)\n or low.ushr(-bitCount)\n        return if ((bitCount and 32) == 0) Long(newLow, newHigh) else Long(newHigh,\n newLow)\n    } else {\n        return if ((bitCount and 32) == 0) this else Long(high, low)\n    }\n}\n\n/**\n * Rotates the binary representation of this [Long] number right by the specified [bitCount] number of bits.\n * The\n least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n *\n `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [Long.SIZE_BITS] (64) returns\n the same number, or more generally\n *\n `number.rotateRight(n) == number.rotateRight(n % 64)`\n *\n @SinceKotlin("1.6")\n @WasExperimental(ExperimentalStdlibApi::class)\n @kotlin.internal.InlineOnly\n public\n c actual inline fun Long.rotateRight(bitCount: Int): Long = rotateLeft(-bitCount)\n\n", /*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code\n is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n *\n @\n\n package\n kotlin.js\n\n import kotlin.internal.LowPriorityInOverloadResolution\n\n /**\n * Exposes the JavaScript [Promise\n object](https://developer.mozilla.org/en/docs/Web/JavaScript/Reference/Global_Objects/Promise) to Kotlin.\n *\n @Suppress("NOT_DOCUMENTED")\n public open external class Promise<out T>(executor: (resolve: (T) ->\n Unit, reject: (Throwable) -> Unit) -> Unit) {\n    @LowPriorityInOverloadResolution\n    public open fun <S>\n then(onFulfilled: ((T) -> S)?): Promise<S>\n\n    @LowPriorityInOverloadResolution\n    public open fun <S>\n then(onFulfilled: ((T) -> S)?, onRejected: ((Throwable) -> S)?): Promise<S>\n\n    public open fun <S>\n catch(onRejected: (Throwable) -> S): Promise<S>\n\n    public open fun finally(onFinally: () -> Unit):\n Promise<T>\n\n    companion object {\n\n        public fun <S> all(promise: Array<out Promise<S>>): Promise<Array<out S>>\n\n        public fun <S>\n race(promise: Array<out Promise<S>>): Promise<S>\n\n        public fun reject(e: Throwable):\n Promise<Nothing>\n\n        public fun <S> resolve(e: S): Promise<S>\n\n        public fun <S> resolve(e:\n Promise<S>): Promise<S>\n\n    }\n}\n\n// It's workaround for KT-19672 since we can fix it properly until KT-11265\n isn't fixed.\n\n inline fun <T, S> Promise<Promise<T>>.then(\n    noinline onFulfilled: ((T) -> S)?\n): Promise<S> {\n    return this.unsafeCast<Promise<T>>().then(onFulfilled)\n}\n\n inline fun <T, S> Promise<Promise<T>>.then(\n    noinline onFulfilled: ((T) -> S)?,\n    noinline onRejected: ((Throwable) -> S)?\n): Promise<S> {\n    return\n this.unsafeCast<Promise<T>>().then(onFulfilled, onRejected)\n}\n\n", /*\n * Copyright 2010-2018 JetBrains s.r.o.\n and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license\n that can be found in\n the license/LICENSE.txt file.\n *\n @\n\n package\n kotlin.random\n\n import kotlin.math.pow\n\n internal actual fun\n defaultPlatformRandom(): Random =\n    Random(js("Math.random() * Math.pow(2, 32) | 0").unsafeCast<Int>())\n\n private val INV_2_26: Double = 2.0.pow(-26)\n private val INV_2_53: Double =\n 2.0.pow(-53)\n\n internal actual fun doubleFromParts(hi26: Int, low27: Int): Double =\n    hi26 * INV_2_26 + low27 *\n INV_2_53\n\n", /*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use\n of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
```

```

* \n \n package kotlin.reflect \n \n import findAssociatedObject \n \n /** \n * The experimental marker for associated
objects API. \n * Any usage of a declaration annotated with `@ExperimentalAssociatedObjects` must be
accepted either by \n * annotating that usage with the [OptIn] annotation, e.g.
`@OptIn(ExperimentalAssociatedObjects::class)`, \n * or by using the compiler
argument `-opt-in=kotlin.reflect.ExperimentalAssociatedObjects`. \n * \n @RequiresOptIn(level =
RequiresOptIn.Level.ERROR) \n @Retention(value = AnnotationRetention.BINARY) \n public annotation class
ExperimentalAssociatedObjects \n \n /** \n * Makes the annotated annotation class an associated object key. \n * \n * An associated object key annotation should have single [KClass] parameter. \n * When applied to a class with
reference to an object declaration as an argument, it binds \n * the object to the class, making this binding
discoverable at runtime using [findAssociatedObject]. \n
* \n @ExperimentalAssociatedObjects \n @Retention(AnnotationRetention.BINARY) \n @Target(AnnotationTarget.A
NNOTATION_CLASS) \n public annotation class AssociatedObjectKey \n \n /** \n * If [T] is an
@[AssociatedObjectKey]-annotated annotation class and [this] class is annotated with @[T] (`S::class`), \n * returns
object `S`. \n * Otherwise returns `null`. \n * \n @ExperimentalAssociatedObjects \n public inline fun <reified
T : Annotation> KClass<*>.findAssociatedObject(): Any? = \n this.findAssociatedObject(T::class), /* \n
* Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors. \n * Use of this source code is
governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file. \n * \n \n package
kotlin.js \n \n import getKClass \n \n import kotlin.reflect.KClass \n \n import kotlin.reflect.js.internal.KClassImpl \n \n /** \n *
Represents the constructor of a class. Instances of `JsClass` can be passed to JavaScript APIs that expect a
constructor reference. \n * \n * Next external interface JsClass<T : Any> { \n * /** \n * Returns the unqualified name of the
class represented by this instance. \n * \n val name: String \n } \n \n /** \n * Obtains a constructor reference for the
given `KClass`. \n * \n val <T : Any> KClass<T>.js: JsClass<T> \n get() = (this as KClassImpl<T>).jClass \n \n /** \n *
Obtains a `KClass` instance for the given constructor reference. \n * \n val <T : Any> JsClass<T>.kotlin:
KClass<T> \n get() = getKClass(this) \n \n /* \n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming
Language contributors. \n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file. \n * \n \n package kotlin.reflect.js.internal \n \n import kotlin.reflect.* \n \n internal abstract
class KClassImpl<T : Any>(\n internal open val jClass: JsClass<T>) \n : KClass<T> { \n \n override val
qualifiedName: String? \n get() = TODO() \n \n override fun equals(other: Any?): Boolean { \n return other
is KClassImpl<*> && jClass == other.jClass \n } \n \n // TODO: use FQN \n override fun hashCode(): Int =
simpleName?.hashCode() ?: 0 \n \n override fun toString(): String { \n // TODO: use FQN \n return "\"class
$simpleName\"" \n } \n } \n \n internal class SimpleKClassImpl<T : Any>(jClass: JsClass<T>) \n : KClassImpl<T>(jClass) { \n
override val simpleName: String? =
jClass.asDynamic().$metadata$.simpleName.unsafeCast<String?>() \n \n
override fun isInstance(value: Any?): Boolean { \n return jsIsType(value, jClass) \n } \n } \n \n internal class
PrimitiveKClassImpl<T : Any>(\n jClass: JsClass<T>, \n private val givenSimpleName: String, \n private val
isInstanceFunction: (Any?) -> Boolean) \n : KClassImpl<T>(jClass) { \n override fun equals(other: Any?): Boolean
{ \n if (other !is PrimitiveKClassImpl<*>) return false \n return super.equals(other) && givenSimpleName
== other.givenSimpleName \n } \n \n override val simpleName: String? get() = givenSimpleName \n \n override
fun isInstance(value: Any?): Boolean { \n return isInstanceFunction(value) \n } \n } \n \n internal object
NothingKClassImpl : KClassImpl<Nothing>(js("Object")) { \n override val simpleName: String =
"Nothing" \n \n override fun isInstance(value: Any?): Boolean = false \n \n override val jClass:
JsClass<Nothing> \n get() = throw UnsupportedOperationException("There's no native
JS class for Nothing type") \n \n override fun equals(other: Any?): Boolean = other === this \n \n override fun
hashCode(): Int = 0 \n } \n \n internal class ErrorKClass : KClass<Nothing> { \n override val simpleName: String?
get() = error("Unknown simpleName for ErrorKClass") \n \n override val qualifiedName: String? get() =
error("Unknown qualifiedName for ErrorKClass") \n \n override fun isInstance(value: Any?): Boolean =
error("Can't check isInstance on ErrorKClass") \n \n override fun equals(other: Any?): Boolean = other ===
this \n \n override fun hashCode(): Int = 0 \n } \n \n /* \n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin

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Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect.\n\ninternal actual inline val
KClass<*>.qualifiedOrSimpleName: String? \n    get() = simpleName", "/*\n * Copyright 2010-2018 JetBrains s.r.o.
and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\n// a package is omitted to get declarations directly under the module\n\n// TODO:
Remove once JsReflectionAPICallChecker supports more reflection
types\n@file:Suppress("Unsupported")\n\nimport kotlin.reflect.*\nimport
kotlin.reflect.js.internal.*\n\n@JsName("createKType")\n\ninternal fun createKType(\n    classifier: KClassifier,\n
arguments: Array<KTypeProjection>,\n    isMarkedNullable: Boolean)\n    =\n    KTypeImpl(classifier,
arguments.asList(), isMarkedNullable)\n\n@JsName("createDynamicKType")\n\ninternal fun
createDynamicKType(): KType = DynamicKType\n\n@JsName("markKTypeNullable")\n\ninternal fun
markKTypeNullable(kType: KType) = KTypeImpl(kType.classifier!!, kType.arguments,
true)\n\n@JsName("createKTypeParameter")\n\ninternal fun createKTypeParameter(\n    name: String,\n
upperBounds: Array<KType>,\n    variance: String)\n    : KTypeParameter
{\n    val kVariance = when (variance) {\n        "in" -> KVariance.IN\n        "out" -> KVariance.OUT\n        else -
> KVariance.INVARIANT\n    }\n    return KTypeParameterImpl(name, upperBounds.asList(), kVariance,
false)\n}\n\n@JsName("getStarKTypeProjection")\n\ninternal fun getStarKTypeProjection(): KTypeProjection =\n
KTypeProjection.STAR\n\n@JsName("createCovariantKTypeProjection")\n\ninternal fun
createCovariantKTypeProjection(type: KType): KTypeProjection =\n
KTypeProjection.covariant(type)\n\n@JsName("createInvariantKTypeProjection")\n\ninternal fun
createInvariantKTypeProjection(type: KType): KTypeProjection =\n
KTypeProjection.invariant(type)\n\n@JsName("createContravariantKTypeProjection")\n\ninternal fun
createContravariantKTypeProjection(type: KType): KTypeProjection =\n
KTypeProjection.contravariant(type)\n", "/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by
the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
kotlin.reflect.js.internal\n\nimport kotlin.reflect.*\n\ninternal class KTypeImpl(\n    override val classifier:
KClassifier,\n    override val arguments: List<KTypeProjection>,\n    override val isMarkedNullable: Boolean)\n    :
KType {\n    override fun equals(other: Any?): Boolean =\n        other is KTypeImpl &&\n            classifier ==
other.classifier && arguments == other.arguments && isMarkedNullable == other.isMarkedNullable\n    override
fun hashCode(): Int =\n        (classifier.hashCode() * 31 + arguments.hashCode()) * 31 +
isMarkedNullable.hashCode()\n    override fun toString(): String {\n        val kClass = (classifier as? KClass<*>)\n
        val classifierName = when {\n            kClass == null -> classifier.toString()\n            kClass.simpleName != null
-> kClass.simpleName\n            else -> "(non-denotable type)"\n        }\n        val args =\n            if
(arguments.isEmpty()) ""\n            else arguments.joinToString(", ", "<", ">")\n        val nullable = if
(isMarkedNullable) "?" else ""\n        return classifierName + args + nullable\n    }\n}\n\ninternal object
DynamicKType : KType {\n    override val classifier: KClassifier? = null\n    override val arguments:
List<KTypeProjection> = emptyList()\n    override val isMarkedNullable: Boolean = false\n    override fun
toString(): String = "dynamic"\n}\n", "/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin.reflect.js.internal\n\nimport kotlin.reflect.*\n\ninternal data class
KTypeParameterImpl(\n    override val name: String,\n    override val upperBounds: List<KType>,\n    override val
variance: KVariance,\n    override val isReified: Boolean)\n    : KTypeParameter {\n    override fun toString():
String = name\n}\n", "/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n
* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\npackage kotlin.reflect.js.internal\n\nimport kotlin.js.JsClass\n\n@JsName("PrimitiveClasses")\n\ninternal
object PrimitiveClasses {\n    @JsName("anyClass")\n    val anyClass =

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PrimitiveKClassImpl(js("Object").unsafeCast<JsClass<Any>>(), "Any", { it is Any })\n\n
@JsName("numberClass")\n val numberClass =
PrimitiveKClassImpl(js("Number").unsafeCast<JsClass<Number>>(), "Number", { it is Number })\n\n
@JsName("nothingClass")\n val nothingClass = NothingKClassImpl\n\n @JsName("booleanClass")\n val
booleanClass = PrimitiveKClassImpl(js("Boolean").unsafeCast<JsClass<Boolean>>(), "Boolean", { it is Boolean
})\n\n @JsName("byteClass")\n val byteClass =
PrimitiveKClassImpl(js("Number").unsafeCast<JsClass<Byte>>(),
"Byte", { it is Byte })\n\n @JsName("shortClass")\n val shortClass =
PrimitiveKClassImpl(js("Number").unsafeCast<JsClass<Short>>(), "Short", { it is Short })\n\n
@JsName("intClass")\n val intClass = PrimitiveKClassImpl(js("Number").unsafeCast<JsClass<Int>>(), "Int",
{ it is Int })\n\n @JsName("floatClass")\n val floatClass =
PrimitiveKClassImpl(js("Number").unsafeCast<JsClass<Float>>(), "Float", { it is Float })\n\n
@JsName("doubleClass")\n val doubleClass =
PrimitiveKClassImpl(js("Number").unsafeCast<JsClass<Double>>(), "Double", { it is Double })\n\n
@JsName("arrayClass")\n val arrayClass =
PrimitiveKClassImpl(js("Array").unsafeCast<JsClass<Array<*>>(), "Array", { it is Array<*> })\n\n
@JsName("stringClass")\n val stringClass = PrimitiveKClassImpl(js("String").unsafeCast<JsClass<String>>(),
"String", { it is String })\n\n @JsName("throwableClass")\n val throwableClass =
PrimitiveKClassImpl(js("Error").unsafeCast<JsClass<Throwable>>(),
"Throwable", { it is Throwable })\n\n @JsName("booleanArrayClass")\n val booleanArrayClass =
PrimitiveKClassImpl(js("Array").unsafeCast<JsClass<BooleanArray>>(), "BooleanArray", { it is BooleanArray
})\n\n @JsName("charArrayClass")\n val charArrayClass =
PrimitiveKClassImpl(js("Uint16Array").unsafeCast<JsClass<CharArray>>(), "CharArray", { it is CharArray
})\n\n @JsName("byteArrayClass")\n val byteArrayClass =
PrimitiveKClassImpl(js("Int8Array").unsafeCast<JsClass<ByteArray>>(), "ByteArray", { it is ByteArray })\n\n
@JsName("shortArrayClass")\n val shortArrayClass =
PrimitiveKClassImpl(js("Int16Array").unsafeCast<JsClass<ShortArray>>(), "ShortArray", { it is ShortArray
})\n\n @JsName("intArrayClass")\n val intArrayClass =
PrimitiveKClassImpl(js("Int32Array").unsafeCast<JsClass<IntArray>>(), "IntArray", { it is IntArray })\n\n
@JsName("longArrayClass")\n val longArrayClass =
PrimitiveKClassImpl(js("Array").unsafeCast<JsClass<LongArray>>(),
"LongArray", { it is LongArray })\n\n @JsName("floatArrayClass")\n val floatArrayClass =
PrimitiveKClassImpl(js("Float32Array").unsafeCast<JsClass<FloatArray>>(), "FloatArray", { it is FloatArray
})\n\n @JsName("doubleArrayClass")\n val doubleArrayClass =
PrimitiveKClassImpl(js("Float64Array").unsafeCast<JsClass<DoubleArray>>(), "DoubleArray", { it is
DoubleArray })\n\n @JsName("functionClass")\n fun functionClass(arity: Int): KClassImpl<Any> {\n
return functionClasses.get(arity) ?: run {\n val result =
PrimitiveKClassImpl(js("Function").unsafeCast<JsClass<Any>>(), "Function$arity",\n
{ jsTypeOf(it) === "function" && it.asDynamic().length === arity })\n functionClasses.asDynamic()[arity]
= result\n result\n }\n }\n\nprivate val functionClasses =
arrayOfNulls<KClassImpl<Any>>(0), "/*\n *
Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code
is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// a package is
omitted to get declarations directly under the module\n\nimport kotlin.reflect.*\nimport
kotlin.reflect.js.internal.*\n\n@JsName("getKClass")\ninternal fun <T : Any> getKClass(jClass: Any /*
JsClass<T> | Array<JsClass<T>> */): KClass<T> {\n return if (js("Array").isArray(jClass)) {\n
getKClassM(jClass.unsafeCast<Array<JsClass<T>>>())\n } else {\n
getKClass1(jClass.unsafeCast<JsClass<T>>())\n }\n }\n\n@JsName("getKClassM")\ninternal fun <T : Any>

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getKClassM(jClasses: Array<JsClass<T>>): KClass<T> = when (jClasses.size) {\n  1 ->
getKClass1(jClasses[0])\n  0 -> NothingKClassImpl.unsafeCast<KClass<T>>()\n  else ->
ErrorKClass().unsafeCast<KClass<T>>()\n}\n\n@JsName("getKClassFromExpression")\ninternal fun <T : Any>
getKClassFromExpression(e:
T): KClass<T> =\n  when (jsTypeOf(e)) {\n    "string" -> PrimitiveClasses.stringClass\n    "number" -> if
(jsBitwiseOr(e, 0).asDynamic() === e) PrimitiveClasses.intClass else PrimitiveClasses.doubleClass\n
"boolean" -> PrimitiveClasses.booleanClass\n    "function" ->
PrimitiveClasses.functionClass(e.asDynamic().length)\n    else -> {\n      when {\n        e is BooleanArray
-> PrimitiveClasses.booleanArrayClass\n        e is CharArray -> PrimitiveClasses.charArrayClass\n
e is ByteArray -> PrimitiveClasses.byteArrayClass\n        e is ShortArray -> PrimitiveClasses.shortArrayClass\n
e is IntArray -> PrimitiveClasses.intArrayClass\n        e is LongArray ->
PrimitiveClasses.longArrayClass\n        e is FloatArray -> PrimitiveClasses.floatArrayClass\n        e is
DoubleArray -> PrimitiveClasses.doubleArrayClass\n        e is KClass<*> -> KClass::class\n
e is Array<*> -> PrimitiveClasses.arrayClass\n        else -> {\n          val constructor =
js("Object").getPrototypeOf(e).constructor\n          when {\n            constructor === js("Object") ->
PrimitiveClasses.anyClass\n            constructor === js("Error") -> PrimitiveClasses.throwableClass\n
else -> {\n              val jsClass: JsClass<T> = constructor\n              getKClass1(jsClass)\n
            }\n          }\n        }\n      }\n    }\n  }\n  }.unsafeCast<KClass<T>>()\n\n@JsName("getKClass1")\ninternal fun <T : Any> getKClass1(jClass:
JsClass<T>): KClass<T> {\n  if (jClass === js("String")) return
PrimitiveClasses.stringClass.unsafeCast<KClass<T>>()\n\n  val metadata = jClass.asDynamic().`$metadata$\`\n\n
return if (metadata != null) {\n    if (metadata.`$kClass$\` == null) {\n      val kClass =
SimpleKClassImpl(jClass)\n      metadata.`$kClass$\` = kClass\n      kClass\n    } else {\n
metadata.`$kClass$\`\n    }\n  } else {\n    SimpleKClassImpl(jClass)\n  }\n  }"/*\n * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\n/**\n * Exposes
the JavaScript [RegExp
object](https://developer.mozilla.org/en/docs/Web/JavaScript/Reference/Global_Objects/RegExp) to Kotlin.\n
*/\n\n@Suppress("NOT_DOCUMENTED")\npublic external class RegExp(pattern: String, flags: String? =
definedExternally) {\n\n  public fun test(str: String): Boolean\n\n  public fun exec(str: String): RegExpMatch?\n\n
  public override fun toString(): String\n\n  /**\n   * The lastIndex is a read/write integer property of regular
expressions that specifies the index at which to start the next match.\n
\n   */\n\n  public var lastIndex: Int\n\n  public val global: Boolean\n  public val ignoreCase: Boolean\n  public val
multiline: Boolean\n}\n\n/**\n * Resets the regular expression so that subsequent [RegExp.test] and [RegExp.exec]
calls will match starting with the beginning of the input string.\n */\n\npublic fun RegExp.reset() {\n  lastIndex =
0\n}\n\n// TODO: Inherit from array or introduce asArray() extension\n/**\n * Represents the return value of
[RegExp.exec].\n */\n\n@Suppress("NOT_DOCUMENTED")\npublic external interface RegExpMatch {\n  public
val index: Int\n  public val input: String\n  public val length: Int\n}\n\n/**\n * Returns the entire text matched by
[RegExp.exec] if the [index] parameter is 0, or the text matched by the capturing parenthesis\n * at the given
index.\n */\n\npublic inline operator fun RegExpMatch.get(index: Int): String? = asDynamic()[index]\n\n/**\n *
Converts the result of [RegExp.exec] to an array where the first element contains the entire
matched text and each subsequent\n * element is the text matched by each capturing parenthesis.\n */\n\npublic inline
fun RegExpMatch.asArray(): Array<out String?> = unsafeCast<Array<out String?>>()\n"/*\n * Copyright 2010-
2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.sequences\n\ninternal
actual class ConstrainedOnceSequence<T> actual constructor(sequence: Sequence<T>) : Sequence<T> {\n  private
var sequenceRef: Sequence<T>? = sequence\n\n  actual override fun iterator(): Iterator<T> {\n    val sequence =
sequenceRef ?: throw IllegalStateException("This sequence can be consumed only once.")\n    sequenceRef =

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null\n    return sequence.iterator()\n    }\n}\n",/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0
license that can be found in the license/LICENSE.txt file.\n */\n\npackage
kotlin.text\n\n@SinceKotlin("1.5")\n\npublic actual enum class CharCategory(internal val value: Int, public actual
val code: String) {\n    /**\n     * General category \"Cn\" in the Unicode specification.\n     */\n    UNASSIGNED(0,
\"Cn\"),\n    /**\n     * General category \"Lu\" in the Unicode specification.\n     */\n    UPPER_CASE_LETTER(1,
\"Lu\"),\n    /**\n     * General category \"Ll\" in the Unicode specification.\n     */\n    LOWER_CASE_LETTER(2,
\"Ll\"),\n    /**\n     * General category \"Lt\" in the Unicode specification.\n     */\n    TITLE_CASE_LETTER(3,
\"Lt\"),\n    /**\n     * General category \"Lm\" in the Unicode specification.\n     */\n    MODIFIER_LETTER(4,
\"Lm\"),\n    /**\n     * General category \"Lo\" in the Unicode specification.\n     */\n    OTHER_LETTER(5,
\"Lo\"),\n    /**\n     * General category \"Mn\" in the Unicode specification.\n     */\n    NON_SPACING_MARK(6,
\"Mn\"),\n    /**\n     * General category \"Me\" in the Unicode specification.\n     */\n    ENCLOSING_MARK(7,
\"Me\"),\n    /**\n     * General category \"Mc\" in the Unicode specification.\n     */\n    COMBINING_SPACING_MARK(8,
\"Mc\"),\n    /**\n     * General category \"Nd\" in the Unicode
specification.\n     */\n    DECIMAL_DIGIT_NUMBER(9, \"Nd\"),\n    /**\n     * General category \"Nl\" in the
Unicode specification.\n     */\n    LETTER_NUMBER(10, \"Nl\"),\n    /**\n     * General category \"No\" in the
Unicode specification.\n     */\n    OTHER_NUMBER(11, \"No\"),\n    /**\n     * General category \"Zs\" in the
Unicode specification.\n     */\n    SPACE_SEPARATOR(12, \"Zs\"),\n    /**\n     * General category \"Zl\" in the
Unicode specification.\n     */\n    LINE_SEPARATOR(13, \"Zl\"),\n    /**\n     * General category \"Zp\" in the
Unicode specification.\n     */\n    PARAGRAPH_SEPARATOR(14, \"Zp\"),\n    /**\n     * General category
\"Cc\" in the Unicode
specification.\n     */\n    CONTROL(15, \"Cc\"),\n    /**\n     * General category \"Cf\" in the Unicode
specification.\n     */\n    FORMAT(16, \"Cf\"),\n    /**\n     * General category \"Co\" in the Unicode
specification.\n     */\n    PRIVATE_USE(18, \"Co\"),\n    /**\n     * General category \"Cs\" in the Unicode
specification.\n     */\n    SURROGATE(19, \"Cs\"),\n    /**\n     * General category \"Pd\" in the Unicode
specification.\n     */\n    DASH_PUNCTUATION(20, \"Pd\"),\n    /**\n     * General category \"Ps\" in the
Unicode specification.\n     */\n    START_PUNCTUATION(21, \"Ps\"),\n    /**\n     * General category \"Pe\" in
the Unicode specification.\n     */\n    END_PUNCTUATION(22, \"Pe\"),\n    /**\n     * General category \"Pc\" in
the Unicode specification.\n     */\n    CONNECTOR_PUNCTUATION(23, \"Pc\"),\n    /**\n     * General
category \"Po\" in the Unicode specification.\n     */\n    OTHER_PUNCTUATION(24, \"Po\"),\n    /**\n     *
General
category \"Sm\" in the Unicode specification.\n     */\n    MATH_SYMBOL(25, \"Sm\"),\n    /**\n     * General
category \"Sc\" in the Unicode specification.\n     */\n    CURRENCY_SYMBOL(26, \"Sc\"),\n    /**\n     *
General category \"Sk\" in the Unicode specification.\n     */\n    MODIFIER_SYMBOL(27, \"Sk\"),\n    /**\n     *
General category \"So\" in the Unicode specification.\n     */\n    OTHER_SYMBOL(28, \"So\"),\n    /**\n     *
General category \"Pi\" in the Unicode specification.\n     */\n    INITIAL_QUOTE_PUNCTUATION(29,
\"Pi\"),\n    /**\n     * General category \"Pf\" in the Unicode specification.\n     */\n    FINAL_QUOTE_PUNCTUATION(30,
\"Pf\");\n    /**\n     * Returns `true` if [char] character belongs to this
category.\n     */\n    public actual operator fun contains(char: Char): Boolean = char.getCategoryValue() ==
this.value\n\n    companion object {\n        internal fun valueOf(category: Int): CharCategory =\n            when
(category) {\n                in 0..16 -> values()[category]\n                in 18..30 -> values()[category - 1]\n                else -> throw
IllegalArgumentException(\"Category #\$category is not defined.\")\n            }\n    }\n}\n",/*\n * Copyright 2010-
2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/**\n * The
exception thrown when a character encoding or decoding error occurs.\n */\n\n@SinceKotlin("1.4")\n\n@WasExperimental(ExperimentalStdlibApi::class)\n\npublic actual open class

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CharacterCodingException(message: String?) : Exception(message) {\n  actual constructor() : this(null)\n}\n"/*\n
* Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code
is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
kotlin.text\n/**\n * A mutable
sequence of characters.\n *\n * String builder can be used to efficiently perform multiple string manipulation
operations.\n */\npublic actual class StringBuilder actual constructor(content: String) : Appendable, CharSequence
{\n  /**\n   * Constructs an empty string builder with the specified initial [capacity].\n   *\n   * In Kotlin/JS
implementation of StringBuilder the initial capacity has no effect on the further performance of operations.\n   */\n
actual constructor(capacity: Int) : this() {\n  }\n\n  /** Constructs a string builder that contains the same
characters as the specified [content] char sequence. *\n   actual constructor(content: CharSequence) :
this(content.toString()) {\n  }\n\n  /** Constructs an empty string builder. *\n   actual constructor() : this(\"\")\n\n
private var string: String = if (content != undefined) content else \"\"\n\n   actual override val length: Int\n
get() = string.asDynamic().length\n\n   actual override fun
get(index: Int): Char =\n   string.getOrNull(index) { throw IndexOutOfBoundsException(\"index: $index, length:
$length\") }\n\n   actual override fun subSequence(startIndex: Int, endIndex: Int): CharSequence =
string.substring(startIndex, endIndex)\n\n   actual override fun append(value: Char): StringBuilder {\n   string +=
value\n   return this\n }\n\n   actual override fun append(value: CharSequence?): StringBuilder {\n   string
+= value.toString()\n   return this\n }\n\n   actual override fun append(value: CharSequence?, startIndex: Int,
endIndex: Int): StringBuilder =\n   this.appendRange(value ?: \"null\", startIndex, endIndex)\n\n   /**\n   *
Reverses the contents of this string builder and returns this instance.\n   *\n   * Surrogate pairs included in this
string builder are treated as single characters.\n   * Therefore, the order of the high-low surrogates is never
reversed.\n   *\n   * Note that the reverse operation may
produce new surrogate pairs that were unpaired low-surrogates and high-surrogates before the operation.\n   * For
example, reversing \"\uDC00\uD800\" produces \"\uD800\uDC00\" which is a valid surrogate pair.\n   */\n\n   actual fun reverse(): StringBuilder {\n   var reversed = \"\"\n   var index = string.length - 1\n   while (index
>= 0) {\n   val low = string[index--]\n   if (low.isLowSurrogate() && index >= 0) {\n   val high =
string[index--]\n   if (high.isHighSurrogate()) {\n   reversed = reversed + high + low\n   }\n   } else {\n
reversed = reversed + low + high\n   }\n   } else {\n   reversed += low\n   }\n   }\n   string = reversed\n   return this\n }\n\n   /**\n   * Appends the string representation of the
specified object [value] to this string builder and returns this instance.\n   *\n   * The overall
effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n   * and then that
string was appended to this string builder.\n   */\n\n   actual fun append(value: Any?): StringBuilder {\n   string
+= value.toString()\n   return this\n }\n\n   /**\n   * Appends the string representation of the specified boolean
[value] to this string builder and returns this instance.\n   *\n   * The overall effect is exactly as if the [value] were
converted to a string by the `value.toString()` method,\n   * and then that string was appended to this string
builder.\n   */\n\n   @SinceKotlin(\"1.3\")\n   actual fun append(value: Boolean): StringBuilder {\n   string +=
value\n   return this\n }\n\n   /**\n   * Appends characters in the specified character array [value] to this string
builder and returns this instance.\n   *\n   * Characters are appended in order, starting at the index 0.\n   */\n\n   @SinceKotlin(\"1.4\")\n\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun append(value: CharArray): StringBuilder {\n
string += value.concatToString()\n   return this\n }\n\n   /**\n   * Appends the specified string [value] to this
string builder and returns this instance.\n   *\n   * If [value] is `null`, then the four characters `\"null\"` are
appended.\n   */\n\n   @SinceKotlin(\"1.3\")\n   actual fun append(value: String?): StringBuilder {\n   this.string
+= value ?: \"null\"\n   return this\n }\n\n   /**\n   * Returns the current capacity of this string builder.\n   *\n   * The capacity is the maximum length this string builder can have before an allocation occurs.\n   *\n   * In
Kotlin/JS implementation of StringBuilder the value returned from this method may not indicate the actual size of
the backing storage.\n   */\n\n   @SinceKotlin(\"1.3\")\n   // @ExperimentalStdlibApi\n   @Deprecated(\"Obtaining
StringBuilder capacity is

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not supported in JS and common code.\", level = DeprecationLevel.ERROR)\n  actual fun capacity(): Int =
length\n\n  /**\n   * Ensures that the capacity of this string builder is at least equal to the specified
[minimumCapacity].\n   *\n   * If the current capacity is less than the [minimumCapacity], a new backing storage
is allocated with greater capacity.\n   * Otherwise, this method takes no action and simply returns.\n   *\n   * In
Kotlin/JS implementation of StringBuilder the size of the backing storage is not extended to comply the given
[minimumCapacity],\n   * thus calling this method has no effect on the further performance of operations.\n   */\n  @SinceKotlin("1.4")\n  @WasExperimental(ExperimentalStdlibApi::class)\n  actual fun
ensureCapacity(minimumCapacity: Int) {\n  }\n\n  /**\n   * Returns the index within this string builder of the
first occurrence of the specified [string].\n   *\n   * Returns -1 if the specified [string] does not
occur in this string builder.\n   */\n  @SinceKotlin("1.4")\n  @WasExperimental(ExperimentalStdlibApi::class)\n  actual fun indexOf(string: String): Int =
this.string.asDynamic().indexOf(string)\n\n  /**\n   * Returns the index within this string builder of the first
occurrence of the specified [string],\n   * starting at the specified [startIndex].\n   *\n   * Returns -1 if the
specified [string] does not occur in this string builder starting at the specified [startIndex].\n   */\n  @SinceKotlin("1.4")\n  @WasExperimental(ExperimentalStdlibApi::class)\n  actual fun indexOf(string: String,
startIndex: Int): Int = this.string.asDynamic().indexOf(string, startIndex)\n\n  /**\n   * Returns the index within
this string builder of the last occurrence of the specified [string].\n   * The last occurrence of empty string ``""`` is
considered to be at the index equal to `this.length`.\n   *\n   * Returns -1 if the specified [string] does not occur
in
this string builder.\n   */\n  @SinceKotlin("1.4")\n  @WasExperimental(ExperimentalStdlibApi::class)\n  actual fun lastIndexOf(string: String): Int = this.string.asDynamic().lastIndexOf(string)\n\n  /**\n   * Returns the
index within this string builder of the last occurrence of the specified [string],\n   * starting from the specified
[startIndex] toward the beginning.\n   *\n   * Returns -1 if the specified [string] does not occur in this string
builder starting at the specified [startIndex].\n   */\n  @SinceKotlin("1.4")\n  @WasExperimental(ExperimentalStdlibApi::class)\n  actual fun lastIndexOf(string: String, startIndex: Int): Int {\n
  if (string.isEmpty() && startIndex < 0) return -1\n  return this.string.asDynamic().lastIndexOf(string,
startIndex)\n  }\n\n  /**\n   * Inserts the string representation of the specified boolean [value] into this string
builder at the specified [index] and returns this instance.\n   *\n   * The
overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n   * and then
that string was inserted into this string builder at the specified [index].\n   *\n   * @throws
IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n  @SinceKotlin("1.4")\n  @WasExperimental(ExperimentalStdlibApi::class)\n  actual fun insert(index: Int, value:
Boolean): StringBuilder {\n  AbstractList.checkPositionIndex(index, length)\n\n  string = string.substring(0,
index) + value + string.substring(index)\n  return this\n  }\n\n  /**\n   * Inserts the specified character [value]
into this string builder at the specified [index] and returns this instance.\n   *\n   * @throws
IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n  @SinceKotlin("1.4")\n  @WasExperimental(ExperimentalStdlibApi::class)\n  actual fun insert(index: Int, value: Char): StringBuilder {\n
  AbstractList.checkPositionIndex(index, length)\n\n  string = string.substring(0, index) + value + string.substring(index)\n  return this\n  }\n\n  /**\n   * Inserts characters in the specified character array [value] into this string builder at the specified [index]
and returns this instance.\n   *\n   * The inserted characters go in same order as in the [value] character array,
starting at [index].\n   *\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the
length of this string builder.\n   */\n  @SinceKotlin("1.4")\n  @WasExperimental(ExperimentalStdlibApi::class)\n  actual fun insert(index: Int, value: CharArray): StringBuilder {\n
  AbstractList.checkPositionIndex(index, length)\n\n  string = string.substring(0, index) +
value.concatToString() + string.substring(index)\n  return this\n  }\n\n  /**\n   * Inserts
characters in the specified character sequence [value] into this string builder at the specified [index] and returns this
instance.\n   *\n   * The inserted characters go in the same order as in the [value] character sequence, starting at

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[index].\n * \n * @param index the position in this string builder to insert at.\n * @param value the character
sequence from which characters are inserted. If [value] is `null`, then the four characters `"\n\n\n\n"` are inserted.\n
*\n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string
builder.\n * \n * \n * @SinceKotlin("1.4")\n * @WasExperimental(ExperimentalStdlibApi::class)\n actual fun
insert(index: Int, value: CharSequence?): String { \n    AbstractList.checkPositionIndex(index, length)\n    string = string.substring(0, index) + value.toString() + string.substring(index)\n    return this\n } \n\n /**\n * Inserts the string representation
of the specified object [value] into this string builder at the specified [index] and returns this instance.\n * \n *
The overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n * and
then that string was inserted into this string builder at the specified [index].\n * \n * @throws
IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n * \n
* \n * @SinceKotlin("1.4")\n * @WasExperimental(ExperimentalStdlibApi::class)\n actual fun insert(index: Int, value:
Any?): String { \n    AbstractList.checkPositionIndex(index, length)\n    string = string.substring(0,
index) + value.toString() + string.substring(index)\n    return this\n } \n\n /**\n * Inserts the string [value]
into this string builder at the specified [index] and returns this instance.\n * \n * \n * If [value] is `null`, then the four
characters `"\n\n\n\n"` are inserted.\n
*\n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string
builder.\n * \n * \n * @SinceKotlin("1.4")\n * @WasExperimental(ExperimentalStdlibApi::class)\n actual fun
insert(index: Int, value: String?): String { \n    AbstractList.checkPositionIndex(index, length)\n    val
toInsert = value ?: "\n\n\n\n" \n    this.string = this.string.substring(0, index) + toInsert + this.string.substring(index)\n
return this\n } \n\n /**\n * Sets the length of this string builder to the specified [newLength].\n * \n *
If the [newLength] is less than the current length, it is changed to the specified [newLength].\n * \n *
Otherwise, null
characters `"\u0000"` are appended to this string builder until its length is less than the [newLength].\n * \n *
Note that in Kotlin/JS [set] operator function has non-constant execution time complexity.\n * \n * Therefore,
increasing length of this string
builder and then updating each character by index may slow down your program.\n * \n * @throws
IndexOutOfBoundsException or [IllegalArgumentException] if [newLength] is less than zero.\n * \n * \n
* @SinceKotlin("1.4")\n * @WasExperimental(ExperimentalStdlibApi::class)\n actual fun setLength(newLength:
Int) { \n    if (newLength < 0) { \n        throw IllegalArgumentException("Negative new length:
$newLength.")\n    } \n    if (newLength <= length) { \n        string = string.substring(0, newLength)\n    }
else { \n        for (i in length until newLength) { \n            string += "\u0000"\n        } \n    } \n } \n\n /**\n * Returns a new [String] that contains characters in this string builder at [startIndex] (inclusive) and up to the
[length] (exclusive).\n * \n * \n * @throws IndexOutOfBoundsException if [startIndex] is less than zero or greater
than the length of this string builder.\n * \n * \n * @SinceKotlin("1.4")\n
*\n * @WasExperimental(ExperimentalStdlibApi::class)\n actual fun substring(startIndex: Int): String { \n
AbstractList.checkPositionIndex(startIndex, length)\n    return string.substring(startIndex)\n } \n\n /**\n *
Returns a new [String] that contains characters in this string builder at [startIndex] (inclusive) and up to the
[endIndex] (exclusive).\n * \n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when
[startIndex] or [endIndex] is out of range of this string builder indices or when `startIndex > endIndex`.\n * \n
* \n * @SinceKotlin("1.4")\n * @WasExperimental(ExperimentalStdlibApi::class)\n actual fun substring(startIndex:
Int, endIndex: Int): String { \n    AbstractList.checkBoundsIndexes(startIndex, endIndex, length)\n    return
string.substring(startIndex, endIndex)\n } \n\n /**\n * Attempts to reduce storage used for this string builder.\n
*\n * \n * If the backing storage of this string builder
is larger than necessary to hold its current contents,\n * \n * then it may be resized to become more space efficient.\n
*\n * \n * Calling this method may, but is not required to, affect the value of the [capacity] property.\n * \n * \n
* In
Kotlin/JS implementation of String Builder the size of the backing storage is always equal to the length of the string
builder.\n * \n * \n * @SinceKotlin("1.4")\n * @WasExperimental(ExperimentalStdlibApi::class)\n actual fun
trimToSize() { \n } \n\n override fun toString(): String = string\n\n /**\n * Clears the content of this string

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builder making it empty and returns this instance.\n    *\n    * @sample samples.text.Strings.clearStringBuilder\n
*\n    @SinceKotlin("1.3")\n    public fun clear(): StringBuilder {\n        string = ""\n        return this\n    }\n
/**\n    * Sets the character at the specified [index] to the specified [value].\n    *\n    * @throws\n
IndexOutOfBoundsException if [index] is out of bounds\n
of this string builder.\n    *\n    @SinceKotlin("1.4")\n    @WasExperimental(ExperimentalStdlibApi::class)\n
public operator fun set(index: Int, value: Char) {\n        AbstractList.checkElementIndex(index, length)\n
string = string.substring(0, index) + value + string.substring(index + 1)\n    }\n    /**\n    * Replaces characters in\n
the specified range of this string builder with characters in the specified string [value] and returns this instance.\n
*\n    * @param startIndex the beginning (inclusive) of the range to replace.\n    * @param endIndex the end\n
(exclusive) of the range to replace.\n    * @param value the string to replace with.\n    *\n    * @throws\n
IndexOutOfBoundsException or [IllegalArgumentException] if [startIndex] is less than zero, greater than the length\n
of this string builder, or `startIndex > endIndex`.\n    *\n    @SinceKotlin("1.4")\n
@WasExperimental(ExperimentalStdlibApi::class)\n    public fun setRange(startIndex: Int,\n
endIndex: Int, value: String): StringBuilder {\n        checkReplaceRange(startIndex, endIndex, length)\n
this.string = this.string.substring(0, startIndex) + value + this.string.substring(endIndex)\n        return this\n    }\n
private fun checkReplaceRange(startIndex: Int, endIndex: Int, length: Int) {\n        if (startIndex < 0 || startIndex >\n
length) {\n            throw IndexOutOfBoundsException("startIndex: $startIndex, length: $length")\n        }\n        if\n
(startIndex > endIndex) {\n            throw IllegalArgumentException("startIndex($startIndex) >\n
endIndex($endIndex)")\n        }\n    }\n    /**\n    * Removes the character at the specified [index] from this string\n
builder and returns this instance.\n    *\n    * If the `Char` at the specified [index] is part of a supplementary code\n
point, this method does not remove the entire supplementary character.\n    *\n    * @param index the index of\n
`Char` to remove.\n    *\n    * @throws IndexOutOfBoundsException\n
if [index] is out of bounds of this string builder.\n    *\n    @SinceKotlin("1.4")\n
@WasExperimental(ExperimentalStdlibApi::class)\n    public fun deleteAt(index: Int): StringBuilder {\n
AbstractList.checkElementIndex(index, length)\n        string = string.substring(0, index) + string.substring(index +\n
1)\n        return this\n    }\n    /**\n    * Removes characters in the specified range from this string builder and\n
returns this instance.\n    *\n    * @param startIndex the beginning (inclusive) of the range to remove.\n    * @param\n
endIndex the end (exclusive) of the range to remove.\n    *\n    * @throws IndexOutOfBoundsException\n
or [IllegalArgumentException] when [startIndex] is out of range of this string builder indices or when `startIndex >\n
endIndex`.\n    *\n    @SinceKotlin("1.4")\n    @WasExperimental(ExperimentalStdlibApi::class)\n    public fun\n
deleteRange(startIndex: Int, endIndex: Int): StringBuilder {\n        checkReplaceRange(startIndex,\n
endIndex, length)\n        string = string.substring(0, startIndex) + string.substring(endIndex)\n        return this\n
}\n    /**\n    * Copies characters from this string builder into the [destination] character array.\n    *\n    * @param destination the array to copy to.\n    * @param destinationOffset the position in the array to copy to, 0 by\n
default.\n    * @param startIndex the beginning (inclusive) of the range to copy, 0 by default.\n    * @param\n
endIndex the end (exclusive) of the range to copy, length of this string builder by default.\n    *\n    * @throws\n
IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this\n
string builder indices or when `startIndex > endIndex`.\n    * @throws IndexOutOfBoundsException when the\n
subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n    * or when that index\n
is out of the [destination] array indices range.\n
*\n    @SinceKotlin("1.4")\n    @WasExperimental(ExperimentalStdlibApi::class)\n    public fun\n
toCharArray(destination: CharArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = this.length) {\n
        AbstractList.checkBoundsIndexes(startIndex, endIndex, length)\n
AbstractList.checkBoundsIndexes(destinationOffset, destinationOffset + endIndex - startIndex, destination.size)\n
        var dstIndex = destinationOffset\n        for (index in startIndex until endIndex) {\n            destination[dstIndex++]\n
= string[index]\n        }\n    }\n    /**\n    * Appends characters in a subarray of the specified character array\n
[value] to this string builder and returns this instance.\n    *\n    * Characters are appended in order, starting at\n
specified [startIndex].\n    *\n    * @param value the array from which characters are appended.\n    * @param

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startIndex the beginning (inclusive) of the subarray to append.\n * @param endIndex the end (exclusive)
of the subarray to append.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException]
when [startIndex] or [endIndex] is out of range of the [value] array indices or when `startIndex > endIndex`. \n
*/\n @SinceKotlin("1.4")\n @WasExperimental(ExperimentalStdlibApi::class)\n public fun
appendRange(value: CharArray, startIndex: Int, endIndex: Int): StringBuilder {\n    string +=
value.concatToString(startIndex, endIndex)\n    return this\n }\n\n /**\n * Appends a subsequence of the
specified character sequence [value] to this string builder and returns this instance.\n * \n * @param value the
character sequence from which a subsequence is appended.\n * @param startIndex the beginning (inclusive) of
the subsequence to append.\n * @param endIndex the end (exclusive) of the subsequence to append.\n * \n *
@throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of
range of the [value] character sequence indices or when `startIndex > endIndex`. \n */\n
@SinceKotlin("1.4")\n @WasExperimental(ExperimentalStdlibApi::class)\n public fun appendRange(value:
CharSequence, startIndex: Int, endIndex: Int): StringBuilder {\n    val stringCsq = value.toString()\n
AbstractList.checkBoundsIndexes(startIndex, endIndex, stringCsq.length)\n\n    string +=
stringCsq.substring(startIndex, endIndex)\n    return this\n }\n\n /**\n * Inserts characters in a subarray of
the specified character array [value] into this string builder at the specified [index] and returns this instance.\n
* \n * The inserted characters go in same order as in the [value] array, starting at [index].\n * \n * @param index
the position in this string builder to insert at.\n * @param value the array from which characters are inserted.\n
* @param startIndex the beginning (inclusive) of the subarray to insert.\n * @param endIndex
the end (exclusive) of the subarray to insert.\n * \n * @throws IndexOutOfBoundsException or
[IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] array indices or when
`startIndex > endIndex`. \n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the
length of this string builder.\n */\n @SinceKotlin("1.4")\n
@WasExperimental(ExperimentalStdlibApi::class)\n public fun insertRange(index: Int, value: CharArray,
startIndex: Int, endIndex: Int): StringBuilder {\n    AbstractList.checkPositionIndex(index, this.length)\n\n
string = string.substring(0, index) + value.concatToString(startIndex, endIndex) + string.substring(index)\n
return this\n }\n\n /**\n * Inserts characters in a subsequence of the specified character sequence [value] into
this string builder at the specified [index] and returns this instance.\n * \n * The inserted characters go in the
same order
as in the [value] character sequence, starting at [index].\n * \n * @param index the position in this string
builder to insert at.\n * @param value the character sequence from which a subsequence is inserted.\n *
@param startIndex the beginning (inclusive) of the subsequence to insert.\n * @param endIndex the end
(exclusive) of the subsequence to insert.\n * \n * @throws IndexOutOfBoundsException or
[IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence
indices or when `startIndex > endIndex`. \n * @throws IndexOutOfBoundsException if [index] is less than zero or
greater than the length of this string builder.\n */\n @SinceKotlin("1.4")\n
@WasExperimental(ExperimentalStdlibApi::class)\n public fun insertRange(index: Int, value: CharSequence,
startIndex: Int, endIndex: Int): StringBuilder {\n    AbstractList.checkPositionIndex(index, length)\n\n    val
stringCsq = value.toString()\n\n    AbstractList.checkBoundsIndexes(startIndex, endIndex, stringCsq.length)\n\n
string = string.substring(0,
index) + stringCsq.substring(startIndex, endIndex) + string.substring(index)\n    return this\n }\n\n /**\n *
Clears the content of this string builder making it empty and returns this instance.\n * \n * @sample
samples.text.Strings.clearStringBuilder\n */\n @SinceKotlin("1.3")\n @Suppress("EXTENSION_SHADOWED_BY_MEMBER",
"NOTHING_TO_INLINE")\n public actual inline fun StringBuilder.clear(): StringBuilder = this.clear()\n\n /**\n *
Sets the character at the specified [index] to the specified [value].\n * \n * @throws IndexOutOfBoundsException if
[index] is out of bounds of this string builder.\n */\n @SinceKotlin("1.4")\n @WasExperimental(ExperimentalStdlibApi::class)\n @Suppress("EXTENSION_SHA

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DOWED_BY_MEMBER", "NOTHING_TO_INLINE")\npublic actual inline operator fun
StringBuilder.set(index: Int, value: Char) = this.set(index, value)\n\n/**\n * Replaces
characters in the specified range of this string builder with characters in the specified string [value] and returns this
instance.\n *\n * @param startIndex the beginning (inclusive) of the range to replace.\n * @param endIndex the end
(exclusive) of the range to replace.\n * @param value the string to replace with.\n *\n * @throws
IndexOutOfBoundsException or [IllegalArgumentException] if [startIndex] is less than zero, greater than the length
of this string builder, or `startIndex > endIndex`.\n
*/\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress("EXTENSION_SHA
DOWED_BY_MEMBER", "NOTHING_TO_INLINE")\npublic actual inline fun
StringBuilder.setRange(startIndex: Int, endIndex: Int, value: String): StringBuilder =\n    this.setRange(startIndex,
endIndex, value)\n\n/**\n * Removes the character at the specified [index] from this string builder and returns this
instance.\n *\n * If the `Char` at the specified [index] is part of a supplementary code point,
this method does not remove the entire supplementary character.\n *\n * @param index the index of `Char` to
remove.\n *\n * @throws IndexOutOfBoundsException if [index] is out of bounds of this string builder.\n
*/\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress("EXTENSION_SHA
DOWED_BY_MEMBER", "NOTHING_TO_INLINE")\npublic actual inline fun StringBuilder.deleteAt(index:
Int): StringBuilder = this.deleteAt(index)\n\n/**\n * Removes characters in the specified range from this string
builder and returns this instance.\n *\n * @param startIndex the beginning (inclusive) of the range to remove.\n *
@param endIndex the end (exclusive) of the range to remove.\n *\n * @throws IndexOutOfBoundsException or
[IllegalArgumentException] when [startIndex] is out of range of this string builder indices or when `startIndex >
endIndex`.\n
*/\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress("EXTENSION_SHA
DOWED_BY_MEMBER", "NOTHING_TO_INLINE")\npublic
actual inline fun StringBuilder.deleteRange(startIndex: Int, endIndex: Int): StringBuilder =
this.deleteRange(startIndex, endIndex)\n\n/**\n * Copies characters from this string builder into the [destination]
character array.\n *\n * @param destination the array to copy to.\n * @param destinationOffset the position in the
array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the range to copy, 0 by default.\n
* @param endIndex the end (exclusive) of the range to copy, length of this string builder by default.\n *\n *
@throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of
range of this string builder indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException
when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when
that index is out of the [destination] array indices range.\n
*/\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress("EXTENSION_SHA
DOWED_BY_MEMBER",
"NOTHING_TO_INLINE", "ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic actual
inline fun StringBuilder.toCharArray(destination: CharArray, destinationOffset: Int = 0, startIndex: Int = 0,
endIndex: Int = this.length) =\n    this.toCharArray(destination, destinationOffset, startIndex, endIndex)\n\n/**\n *
Appends characters in a subarray of the specified character array [value] to this string builder and returns this
instance.\n *\n * Characters are appended in order, starting at specified [startIndex].\n *\n * @param value the array
from which characters are appended.\n * @param startIndex the beginning (inclusive) of the subarray to append.\n *
@param endIndex the end (exclusive) of the subarray to append.\n *\n * @throws IndexOutOfBoundsException or
[IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] array indices or when
`startIndex > endIndex`.\n
*/\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress("EXTENSION_SHA
DOWED_BY_MEMBER",
"NOTHING_TO_INLINE")\npublic actual inline fun StringBuilder.appendRange(value: CharArray, startIndex:
Int, endIndex: Int): StringBuilder =\n    this.appendRange(value, startIndex, endIndex)\n\n/**\n * Appends a
subsequence of the specified character sequence [value] to this string builder and returns this instance.\n *\n *

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@param value the character sequence from which a subsequence is appended.\n \* @param startIndex the beginning (inclusive) of the subsequence to append.\n \* @param endIndex the end (exclusive) of the subsequence to append.\n \* \n \* @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n

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*\n * @SinceKotlin("1.4")\n * @WasExperimental(ExperimentalStdlibApi::class)\n * @Suppress("EXTENSION_SHA DOWED_BY_MEMBER", "NOTHING_TO_INLINE")\n public
 actual inline fun StringBuilder.appendRange(value: CharSequence, startIndex: Int, endIndex: Int): StringBuilder =\n
 this.appendRange(value, startIndex, endIndex)\n\n/**\n * Inserts characters in a subarray of the specified character array [value] into this string builder at the specified [index] and returns this instance.\n * \n * The inserted characters go in same order as in the [value] array, starting at [index].\n * \n * @param index the position in this string builder to insert at.\n * @param value the array from which characters are inserted.\n * @param startIndex the beginning (inclusive) of the subarray to insert.\n * @param endIndex the end (exclusive) of the subarray to insert.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n
*\n * @SinceKotlin("1.4")\n * @WasExperimental(ExperimentalStdlibApi::class)\n * @Suppress("EXTENSION_SHA DOWED_BY_MEMBER", "NOTHING_TO_INLINE")\n public actual inline fun
 StringBuilder.insertRange(index: Int, value: CharArray, startIndex: Int, endIndex: Int): StringBuilder =\n
 this.insertRange(index, value, startIndex, endIndex)\n\n/**\n * Inserts characters in a subsequence of the specified character sequence [value] into this string builder at the specified [index] and returns this instance.\n * \n * The inserted characters go in the same order as in the [value] character sequence, starting at [index].\n * \n * @param index the position in this string builder to insert at.\n * @param value the character sequence from which a subsequence is inserted.\n * @param startIndex the beginning (inclusive) of the subsequence to insert.\n * @param endIndex the end (exclusive) of the subsequence to insert.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n
*\n * @SinceKotlin("1.4")\n * @WasExperimental(ExperimentalStdlibApi::class)\n * @Suppress("EXTENSION_SHA DOWED_BY_MEMBER", "NOTHING_TO_INLINE")\n public actual inline fun
 StringBuilder.insertRange(index: Int, value: CharSequence, startIndex: Int, endIndex: Int): StringBuilder =\n
 this.insertRange(index, value, startIndex, endIndex)\n\n"/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n * \n * Returns `true` if the content of this string is equal to the word `true`, ignoring case, and `false` otherwise.\n * \n * @Deprecated("Use Kotlin compiler 1.4 to avoid deprecation warning.")\n * @DeprecatedSinceKotlin(hiddenSince = "1.4")\n * @kotlin.internal.InlineOnly\n public actual inline fun String.toBoolean(): Boolean =\n
 this.toBoolean()\n\n/**\n * Returns `true` if this string is not `null` and its content is equal to the word `true`, ignoring case, and `false` otherwise.\n * \n * There are also strict versions of the function available on non-nullable String, [toBooleanStrict] and [toBooleanStrictOrNull].\n * \n * @SinceKotlin("1.4")\n public actual fun
 String?.toBoolean(): Boolean = this != null && this.lowercase() == "true"\n\n/**\n * Parses the string as a signed [Byte] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n
*\n * @public actual fun String.toByte(): Byte = toByteOrNull() ?:\n
 numberFormatError(this)\n\n/**\n * Parses the string as a signed [Byte] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n * @throws
 IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n * \n * @public actual fun
 String.toByte(radix: Int): Byte = toByteOrNull(radix) ?: numberFormatError(this)\n\n/**\n * Parses the string as a [Short] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n
*\n * @public actual fun String.toShort(): Short = toShortOrNull() ?:
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numberFormatException(this)\n\n/**\n * Parses the string as a [Short] number and returns the result.\n * @throws
NumberFormatException if the string is not a valid representation of a number.\n * @throws
IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\npublic actual fun
String.toShort(radix: Int): Short = toShortOrNull(radix) ?: numberFormatException(this)\n\n/**\n * Parses the string as
an [Int] number and returns the result.\n * @throws NumberFormatException if the string is not a valid
representation of a number.\n */\npublic
actual fun String.toInt(): Int = toIntOrNull() ?: numberFormatException(this)\n\n/**\n * Parses the string as an [Int]
number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a
number.\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n
*/\npublic actual fun String.toInt(radix: Int): Int = toIntOrNull(radix) ?: numberFormatException(this)\n\n/**\n * Parses
the string as a [Long] number and returns the result.\n * @throws NumberFormatException if the string is not a
valid representation of a number.\n */\npublic actual fun String.toLong(): Long = toLongOrNull() :
numberFormatException(this)\n\n/**\n * Parses the string as a [Long] number and returns the result.\n * @throws
NumberFormatException if the string is not a valid representation of a number.\n * @throws
IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\npublic actual fun
String.toLong(radix:
Int): Long = toLongOrNull(radix) ?: numberFormatException(this)\n\n/**\n * Parses the string as a [Double] number
and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a
number.\n */\npublic actual fun String.toDouble(): Double = +(this.asDynamic()).unsafeCast<Double>().also {\n
if (it.isNaN() && !this.isNaN() || it == 0.0 && this.isBlank())\n    numberFormatException(this)\n}\n\n/**\n * Parses
the string as a [Float] number and returns the result.\n * @throws NumberFormatException if the string is not a
valid representation of a number.\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun String.toFloat(): Float
= toDouble().unsafeCast<Float>()\n\n/**\n * Parses the string as a [Double] number and returns the result\n * or
`null` if the string is not a valid representation of a number.\n */\npublic actual fun String.toDoubleOrNull():
Double? = +(this.asDynamic()).unsafeCast<Double>().takeIf {\n    !it.isNaN()
&& !this.isNaN() || it == 0.0 && this.isBlank()\n}\n\n/**\n * Parses the string as a [Float] number and returns the
result\n * or `null` if the string is not a valid representation of a number.\n */\n@kotlin.internal.InlineOnly\npublic
actual inline fun String.toFloatOrNull(): Float? = toDoubleOrNull().unsafeCast<Float?>()\n\n/**\n * Returns a
string representation of this [Byte] value in the specified [radix].\n */\n * @throws IllegalArgumentException when
[radix] is not a valid radix for number to string conversion.\n
*/\n@SinceKotlin("1.2")\n@kotlin.internal.InlineOnly\npublic actual inline fun Byte.toString(radix: Int): String =
this.toInt().toString(radix)\n\n/**\n * Returns a string representation of this [Short] value in the specified [radix].\n
*/\n * @throws IllegalArgumentException when [radix] is not a valid radix for number to string conversion.\n
*/\n@SinceKotlin("1.2")\n@kotlin.internal.InlineOnly\npublic actual inline fun Short.toString(radix: Int): String =
this.toInt().toString(radix)\n\n/**\n * Returns a string representation of this [Int] value in the specified [radix].\n
*/\n * @throws
IllegalArgumentException when [radix] is not a valid radix for number to string conversion.\n
*/\n@SinceKotlin("1.2")\npublic actual fun Int.toString(radix: Int): String =
asDynamic().toString(checkRadix(radix))\n\nprivate fun String.isNaN(): Boolean = when (this.lowercase()) {\n
"nan", "+nan", "-nan" -> true\n    else -> false\n}\n\n/**\n * Checks whether the given [radix] is valid radix for
string to number and number to string conversion.\n */\n@PublishedApi\ninternal actual fun checkRadix(radix: Int):
Int {\n    if (radix !in 2..36) {\n        throw IllegalArgumentException("\nradix $radix was not in valid range 2..36")\n
}\n    return radix\n}\n\ninternal actual fun digitOf(char: Char, radix: Int): Int = when {\n    char >= '0' && char <=
'9' -> char - '0'\n    char >= 'A' && char <= 'Z' -> char - 'A' + 10\n    char >= 'a' && char <= 'z' -> char
- 'a' + 10\n    char < "\u0080" -> -1\n    char >= "\uFF21" && char <= "\uFF3A" -> char - "\uFF21" + 10 // full-width
latin capital letter\n    char >= "\uFF41" && char <= "\uFF5A" -> char - "\uFF41" + 10 // full-width latin small
letter\n    else -> char.digitToIntImpl()\n}.let { if (it >= radix) -1 else it }\n\n"/**\n * Copyright 2010-2021 JetBrains
s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0

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license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\nimport
kotlin.js.RegExp\n\n/**\n * Provides enumeration values to use to set regular expression options.\n */\npublic actual
enum class RegexOptions(val value: String) {\n    /** Enables case-insensitive matching. */\n    IGNORE_CASE("\i"),\n    /** Enables multiline mode.\n     * In multiline mode the expressions `^` and `$`
match just after or just before,\n     * respectively, a line terminator or the end of the input sequence.
*/\n    MULTILINE("\m")\n}\n\nprivate fun Iterable<RegexOption>.toFlags(prepend: String): String =
joinToString("\", prefix = prepend) { it.value }\n\n/**\n * Represents the results from a single capturing group
within a [MatchResult] of [Regex].\n */\n * @param value The value of captured group.\n */\npublic actual data
class MatchGroup(actual val value: String)\n\n/**\n * Returns a named group with the specified [name].\n */\n *
@return An instance of [MatchGroup] if the group with the specified [name] was matched or `null` otherwise.\n *
@throws IllegalArgumentException if there is no group with the specified [name] defined in the regex pattern.\n *
@throws UnsupportedOperationException if this match group collection doesn't support getting match groups by
name,\n * for example, when it's not supported by the current platform.\n */\n@SinceKotlin("1.7")\npublic
operator fun MatchGroupCollection.get(name: String): MatchGroup? {\n    val namedGroups = this as?
MatchNamedGroupCollection\n        ?: throw UnsupportedOperationException("Retrieving groups by name is not supported on this platform.")\n    return namedGroups[name]\n}\n\n/**\n * Represents a compiled regular expression.\n * Provides functions to
match strings in text with a pattern, replace the found occurrences and split text around matches.\n */\n * For pattern
syntax reference see [MDN RegExp](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/RegExp#Special_characters_meaning_in_regular_expressions)\n * and
[http://www.w3schools.com/jsref/jsref_obj_regexp.asp](https://www.w3schools.com/jsref/jsref_obj_regexp.asp).\n
*/\n * Note that `RegExp` objects under the hood are constructed with [the `u`
flag](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/RegExp/unicode)\n * that
enables Unicode-related features in regular expressions. This also makes the pattern syntax more strict,\n * for
example, prohibiting unnecessary escape
sequences.\n */\n * @constructor Creates a regular expression from the specified [pattern] string and the specified
set of [options].\n */\npublic actual class Regex actual constructor.\n\nconstructor(pattern: String, options: Set<RegexOption>)\n {\n    /** Creates a regular expression from the specified [pattern] string and the specified single [option]. */\n    public actual constructor(pattern: String, option: RegexOptions) : this(pattern, setOf(option))\n\n    /** Creates a
regular expression from the specified [pattern] string and the default options. */\n    public actual
constructor(pattern: String) : this(pattern, emptySet())\n\n    /** The pattern string of this regular expression. */\n    public actual val pattern: String = pattern\n\n    /** The set of options that were used to create this regular expression.
*/\n    public actual val options: Set<RegexOption> = options.toSet()\n\n    private val nativePattern: RegExp =
RegExp(pattern, options.toFlags("\gu"))\n\n    private var nativeStickyPattern:
RegExp? = null\n\n    private fun initStickyPattern(): RegExp =\n        nativeStickyPattern ?: RegExp(pattern,
options.toFlags("\yu")).also { nativeStickyPattern = it }\n\n    private var nativeMatchesEntirePattern: RegExp? =
null\n\n    private fun initMatchesEntirePattern(): RegExp =\n        nativeMatchesEntirePattern ?: run {\n            if
(pattern.startsWith('^') && pattern.endsWith('$'))\n                nativePattern\n            else\n                return
RegExp("\^${pattern.trimStart('^').trimEnd('$')}$", options.toFlags("\gu"))\n        }.also {\n            nativeMatchesEntirePattern = it }\n\n    /** Indicates whether the regular expression matches the entire [input].
*/\n    public actual infix fun matches(input: CharSequence): Boolean {\n        nativePattern.reset()\n        val match
= nativePattern.exec(input.toString())\n        return match != null && match.index == 0 && nativePattern.lastIndex
== input.length\n    }\n\n    /** Indicates whether the regular expression
can find at least one match in the specified [input]. */\n    public actual fun containsMatchIn(input: CharSequence):
Boolean {\n        nativePattern.reset()\n        return nativePattern.test(input.toString())\n    }\n\n    @SinceKotlin("1.7")\n    @WasExperimental(ExperimentalStdlibApi::class)\n    public actual fun
matchesAt(input: CharSequence, index: Int): Boolean {\n        if (index < 0 || index > input.length) {\n            throw

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IndexOutOfBoundsException("index out of bounds: $index, input length: ${input.length}")\n    }\n    val
pattern = initStickyPattern()\n    pattern.lastIndex = index\n    return pattern.test(input.toString())\n }\n\n
/**\n * Returns the first match of a regular expression in the [input], beginning at the specified [startIndex].\n
*\n * @param startIndex An index to start search with, by default 0. Must be not less than zero and not greater
than `input.length()`\n * @return An instance of [MatchResult] if match
was found or `null` otherwise.\n * @throws IndexOutOfBoundsException if [startIndex] is less than zero or
greater than the length of the [input] char sequence.\n * @sample samples.text.Regexps.find\n */\n
@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\n public actual fun find(input:
CharSequence, startIndex: Int = 0): MatchResult? {\n    if (startIndex < 0 || startIndex > input.length) {\n
throw IndexOutOfBoundsException("Start index out of bounds: $startIndex, input length: ${input.length}")\n
}\n    return nativePattern.findNext(input.toString(), startIndex, nativePattern)\n }\n\n
/**\n * Returns a
sequence of all occurrences of a regular expression within the [input] string, beginning at the specified
[startIndex].\n *\n * @throws IndexOutOfBoundsException if [startIndex] is less than zero or greater than the
length of the [input] char sequence.\n *\n * @sample samples.text.Regexps.findAll\n */\n
@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\n public actual fun findAll(input:
CharSequence, startIndex: Int = 0): Sequence<MatchResult> {\n    if (startIndex < 0 || startIndex > input.length)
{\n    throw IndexOutOfBoundsException("Start index out of bounds: $startIndex, input length:
${input.length}")\n    }\n    return generateSequence({ find(input, startIndex) }, { match -> match.next() })\n
}\n\n
/**\n * Attempts to match the entire [input] CharSequence against the pattern.\n *\n * @return An
instance of [MatchResult] if the entire input matches or `null` otherwise.\n */\n public actual fun
matchEntire(input: CharSequence): MatchResult? =\n    initMatchesEntirePattern().findNext(input.toString(), 0,
nativePattern)\n\n
@SinceKotlin("1.7")\n @WasExperimental(ExperimentalStdlibApi::class)\n public actual
fun matchAt(input: CharSequence, index: Int): MatchResult? {\n    if (index < 0 || index > input.length)
{\n    throw IndexOutOfBoundsException("index out of bounds: $index, input length: ${input.length}")\n
}\n    return initStickyPattern().findNext(input.toString(), index, nativePattern)\n }\n\n
/**\n * Replaces
all occurrences of this regular expression in the specified [input] string with specified [replacement] expression.\n
*\n * The replacement string may contain references to the captured groups during a match. Occurrences of
`${name}` or `$index`\n * in the replacement string will be substituted with the subsequences corresponding to
the captured groups with the specified name or index.\n * In case of `$index`, the first digit after '$' is always
treated as a part of group reference. Subsequent digits are incorporated\n * into `index` only if they would form a
valid group reference. Only the digits '0'..'9' are considered as potential components\n * of the group reference.
Note that indexes of captured groups start from
1, and the group with index 0 is the whole match.\n * In case of `${name}`, the `name` can consist of latin letters
'a'..'z' and 'A'..'Z', or digits '0'..'9'. The first character must be\n * a letter.\n *\n * Backslash character '\\' can
be used to include the succeeding character as a literal in the replacement string, e.g. `\\$` or `\\|`.\n *
[Regex.escapeReplacement] can be used if [replacement] have to be treated as a literal string.\n *\n * @param
input the char sequence to find matches of this regular expression in\n * @param replacement the expression to
replace found matches with\n * @return the result of replacing each occurrence of this regular expression in
[input] with the result of evaluating the [replacement] expression\n * @throws RuntimeException if
[replacement] expression is malformed, or capturing group with specified `name` or `index` does not exist\n */\n
public actual fun replace(input: CharSequence, replacement: String):
String {\n    if (!replacement.contains("\\|") && !replacement.contains('$')) {\n    return
input.toString().nativeReplace(nativePattern, replacement)\n    }\n    return replace(input) {\n
substituteGroupRefs(it, replacement) }\n }\n\n
/**\n * Replaces all occurrences of this regular expression in
the specified [input] string with the result of\n * the given function [transform] that takes [MatchResult] and
returns a string to be used as a\n * replacement for that match.\n */\n public actual fun replace(input:
CharSequence, transform: (MatchResult) -> CharSequence): String {\n    var match = find(input)\n    if (match
== null) return input.toString()\n    var lastStart = 0\n    val length = input.length\n    val sb =

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StringBuilder(length)\n    do {\n        val foundMatch = match!!\n        sb.append(input, lastStart,
foundMatch.range.start)\n        sb.append(transform(foundMatch))\n        lastStart
= foundMatch.range.endInclusive + 1\n        match = foundMatch.next()\n    } while (lastStart < length &&
match != null)\n\n    if (lastStart < length) {\n        sb.append(input, lastStart, length)\n    }\n\n    return
sb.toString()\n } \n\n /**\n  * Replaces the first occurrence of this regular expression in the specified [input]
string with specified [replacement] expression.\n  *\n  * The replacement string may contain references to the
captured groups during a match. Occurrences of `${name}` or `${index}`\n  * in the replacement string will be
substituted with the subsequences corresponding to the captured groups with the specified name or index.\n  * In
case of `${index}`, the first digit after '$' is always treated as a part of group reference. Subsequent digits are
incorporated\n  * into `index` only if they would form a valid group reference. Only the digits '0'..'9' are considered
as potential components\n  * of the group
reference. Note that indexes of captured groups start from 1, and the group with index 0 is the whole match.\n  *
In case of `${name}`, the `name` can consist of latin letters 'a'..'z' and 'A'..'Z', or digits '0'..'9'. The first character
must be\n  * a letter.\n  *\n  * Backslash character '\\' can be used to include the succeeding character as a
literal in the replacement string, e.g. `\\$` or `\\\\`. \n  * [Regex.escapeReplacement] can be used if [replacement]
have to be treated as a literal string.\n  *\n  * @param input the char sequence to find a match of this regular
expression in\n  * @param replacement the expression to replace the found match with\n  * @return the result of
replacing the first occurrence of this regular expression in [input] with the result of evaluating the [replacement]
expression\n  * @throws RuntimeException if [replacement] expression is malformed, or capturing group with
specified `name` or `index` does not exist\n  */\n
public actual fun replaceFirst(input: CharSequence, replacement: String): String {\n    if
(!replacement.contains("\\\\") && !replacement.contains('$')) {\n        val nonGlobalOptions =
options.toFlags("\\u")\n        return input.toString().nativeReplace(RegExp(pattern, nonGlobalOptions),
replacement)\n    }\n\n    val match = find(input) ?: return input.toString()\n\n    return buildString {\n
append(input.substring(0, match.range.first))\n        append(substituteGroupRefs(match, replacement))\n
append(input.substring(match.range.last + 1, input.length))\n    } \n\n } \n\n /**\n  * Splits the [input]
CharSequence to a list of strings around matches of this regular expression.\n  *\n  * @param limit Non-negative
value specifying the maximum number of substrings the string can be split to.\n  * Zero by default means no limit
is set.\n  * \n  * @Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\n  public actual
fun split(input: CharSequence, limit: Int = 0): List<String> {\n    requireNonNegativeLimit(limit)\n    val
matches = findAll(input).let { if (limit == 0) it else it.take(limit - 1) }\n    val result = mutableListOf<String>()\n
var lastStart = 0\n    for (match in matches) {\n        result.add(input.subSequence(lastStart,
match.range.start).toString())\n        lastStart = match.range.endInclusive + 1\n    }\n
result.add(input.subSequence(lastStart, input.length).toString())\n    return result\n } \n\n /**\n  * Splits the
[input] CharSequence to a sequence of strings around matches of this regular expression.\n  *\n  * @param limit
Non-negative value specifying the maximum number of substrings the string can be split to.\n  * Zero by default
means no limit is set.\n  * \n  * @sample samples.text.Regexps.splitToSequence\n  * \n  * @SinceKotlin("1.6")\n
@WasExperimental(ExperimentalStdlibApi::class)\n
@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\n
public actual fun splitToSequence(input: CharSequence, limit: Int = 0): Sequence<String> {\n
requireNonNegativeLimit(limit)\n\n    return sequence {\n        var match = find(input)\n        if (match ==
null || limit == 1) {\n            yield(input.toString())\n            return@sequence\n        }\n        var
nextStart = 0\n        var splitCount = 0\n        do {\n            val foundMatch = match!!\n
yield(input.substring(nextStart, foundMatch.range.first))\n            nextStart = foundMatch.range.endInclusive +
1\n            match = foundMatch.next()\n        } while (++splitCount != limit - 1 && match != null)\n\n
yield(input.substring(nextStart, input.length))\n    } \n\n } \n\n /**\n  * Returns the string representation of
this regular expression, namely the [pattern] of this regular expression.\n  *\n  * Note that another

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regular expression constructed from the same pattern string may have different [options] * and may match
strings differently.
*/
public override fun toString(): String = nativePattern.toString()
actual
companion object {
    /**
     * Returns a regular expression that matches the specified [literal] string
     literally.
     * No characters of that string will have special meaning when searching for an occurrence of the
     regular expression.
     */
    public actual fun fromLiteral(literal: String): Regex = Regex(escape(literal))
    /**
     * Returns a regular expression pattern string that matches the specified [literal] string literally.
     * No characters of that string will have special meaning when searching for an occurrence of the regular expression.
     */
    public actual fun escape(literal: String): String = literal.nativeReplace(patternEscape, "\\|\\$&\\")
    /**
     * Returns
     a literal replacement expression for the specified [literal] string.
     * No characters of that string will have
     special meaning when it is used as a replacement string in [Regex.replace] function.
     */
    public actual
    fun escapeReplacement(literal: String): String = literal.nativeReplace(replacementEscape, "\\|\\$&\\")
    private
    val patternEscape = RegExp("\\|\\[[\\^$*+?.()|\\]{}\\]\\|\\|", "g")
    private val replacementEscape =
    RegExp("\\|\\[[\\$]\\]|\\|", "g")
    internal fun nativeEscapeReplacement(literal: String): String =
    literal.nativeReplace(nativeReplacementEscape, "\\$\\$\\$")
    private val nativeReplacementEscape =
    RegExp("\\|\\|\\|\\$\\|\\|", "g")
}
private fun RegExp.findNext(input: String, from: Int, nextPattern:
RegExp): MatchResult? {
    this.lastIndex = from
    val match = exec(input)
    if (match == null) return null
    val range = match.index..lastIndex - 1
    return object : MatchResult {
        override val range: IntRange = range
        override val value: String
            get() = match[0]!!
        override val groups: MatchGroupCollection = object : MatchNamedGroupCollection,
        AbstractCollection<MatchGroup?>() {
            override val size: Int
                get() = match.length
            override fun
            iterator(): Iterator<MatchGroup?> = indices.asSequence().map { this[it] }.iterator()
            override fun get(index:
            Int): MatchGroup? = match[index]?
            .let { MatchGroup(it) }
            override fun get(name: String): MatchGroup?
            {
                // An object of named capturing groups whose keys are the names and values are the capturing
                groups
                // or undefined if no named capturing groups were defined.
                val groups =
                match.asDynamic().groups
                ?: throw IllegalArgumentException("Capturing group with name {$name}
                does not exist. No named capturing group was defined in Regex")
                // If the match
                was successful but the group specified failed to match any part of the input sequence,
                // the associated
                value is 'undefined'. Value for a non-existent key is also 'undefined'. Thus, explicitly check if the key exists.
                if (!hasOwnProperty(groups, name))
                    throw IllegalArgumentException("Capturing group
                    with name {$name} does not exist")
                val value = groups[name]
                return if (value ==
                undefined) null else MatchGroup(value as String)
            }
            private fun
            hasOwnProperty(o: Any?, name: String): Boolean {
                return
                js("Object").prototype.hasOwnProperty.call(o, name).unsafeCast<Boolean>()
            }
            private var
            groupValues_: List<String>? = null
            override val groupValues: List<String>
                get() {
                    if
                    (groupValues_ == null) {
                        groupValues_ = object : AbstractList<String>() {
                            override val size: Int
                                get() = match.length
                            override fun get(index: Int): String =
                            match[index]?: ""
                        }
                    }
                    return groupValues_!!
                }
            override fun
            next(): MatchResult? =
            nextPattern.findNext(input, if (range.isEmpty())
            advanceToNextCharacter(range.start) else range.endInclusive + 1, nextPattern)
            private fun
            advanceToNextCharacter(index: Int): Int {
                if (index < input.lastIndex) {
                    val code1 =
                    input.asDynamic().charCodeAt(index).unsafeCast<Int>()
                    if (code1 in 0xD800..0xDBFF) {
                        val code2 = input.asDynamic().charCodeAt(index + 1).unsafeCast<Int>()
                        if (code2 in
                        0xDC00..0xDFFF) {
                            return index + 2
                        }
                    }
                    return index + 1
                }
            }
            // The same code from K/N Regex.kt
            private
            fun substituteGroupRefs(match: MatchResult, replacement: String): String {
                var index = 0
                val result =
                StringBuilder()
                while (index < replacement.length) {
                    val char = replacement[index++]
                    if (char ==
                    '\\') {
                        if (index == replacement.length)
                            throw IllegalArgumentException("The Char to be

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escaped is missing")\n\n        result.append(replacement[index++])\n        } else if (char == '$') {\n            if
(index == replacement.length)\n                throw IllegalArgumentException("Capturing group index is
missing")\n            if (replacement[index] == '{') {\n                val endIndex =
replacement.readGroupName(++index)\n                if (index == endIndex)\n                    throw
IllegalArgumentException("Named capturing group reference should have a non-empty name")\n                if
(endIndex == replacement.length || replacement[endIndex] != '{')\n                    throw
IllegalArgumentException("Named
capturing group reference is missing trailing '}'")\n                val groupName = replacement.substring(index,
endIndex)\n                result.append(match.groups[groupName]?.value ?: "\\")\n                index = endIndex + 1 //
skip past '}'\n            } else {\n                if (replacement[index] !in '0'..'9')\n                    throw
IllegalArgumentException("Invalid capturing group reference")\n                val groups = match.groups\n                val endIndex = replacement.readGroupIndex(index, groups.size)\n                val groupIndex =
replacement.substring(index, endIndex).toInt()\n                if (groupIndex >= groups.size)\n                    throw
IndexOutOfBoundsException("Group with index $groupIndex does not exist")\n                result.append(groups[groupIndex]?.value ?: "\\")\n                index = endIndex\n            }\n        } else {\n
result.append(char)\n        }\n    }\n    return
result.toString()\n}\n\n// The name must be a legal JavaScript identifier. See https://262.ecma-
international.org/5.1/#sec-7.6\n// Don't try to validate the referenced group name as it may be time-consuming.\n// If
the name is invalid, it won't be found in `match.groups` anyway and will throw.\n// Group names in the target Regex
are validated at creation time.\nprivate fun String.readGroupName(startIndex: Int): Int {\n    var index = startIndex\n    while (index < length) {\n        if (this[index] == '{') {\n            break\n        } else {\n            index++\n        }\n    }\n    return index\n}\n\nprivate fun String.readGroupIndex(startIndex: Int, groupCount: Int): Int {\n    // at least one
digit after '$' is always captured\n    var index = startIndex + 1\n    var groupIndex = this[startIndex] - '0'\n    //
capture the largest valid group index\n    while (index < length && this[index] in '0'..'9') {\n        val newGroupIndex
= (groupIndex * 10) + (this[index] - '0')\n        if (newGroupIndex in 0 until groupCount) {\n            groupIndex = newGroupIndex\n            index++\n        }\n    }\n    return index\n}"/**\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("StringsKt")\n@file:Suppress("EXTENSI
ON_SHADOWED_BY_MEMBER")\n\npackage kotlin.text\n\nimport kotlin.contracts.*\n\n/**\n * A mutable
sequence of characters.\n * \n * String builder can be used to efficiently perform multiple string manipulation
operations.\n * \n * expect class StringBuilder : Appendable, CharSequence {\n *     /** Constructs an empty string
builder.\n *     constructor()\n *     /** Constructs an empty string builder with the specified initial [capacity].\n *     constructor(capacity: Int)\n *     /** Constructs
a string builder that contains the same characters as the specified [content] char sequence.\n *     constructor(content: CharSequence)\n *     /** Constructs a string builder that contains the same characters as the
specified [content] string.\n *     @SinceKotlin("1.3")\n *     @ExperimentalStdlibApi\n *     constructor(content:
String)\n *     override val length: Int\n *     override operator fun get(index: Int): Char\n *     override fun
subSequence(startIndex: Int, endIndex: Int): CharSequence\n *     override fun append(value: Char): StringBuilder\n *     override fun append(value: CharSequence?): StringBuilder\n *     override fun append(value: CharSequence?,
startIndex: Int, endIndex: Int): StringBuilder\n *     /**\n *     * Reverses the contents of this string builder and returns
this instance.\n *     * \n *     * Surrogate pairs included in this string builder are treated as single characters.\n *     * Therefore, the order of the high-low surrogates is never reversed.\n *     * \n *     * Note that
the reverse operation may produce new surrogate pairs that were unpaired low-surrogates and high-surrogates
before the operation.\n *     * For example, reversing `"\uDC00\uD800"` produces `"\uD800\uDC00"` which is a
valid surrogate pair.\n *     * \n *     fun reverse(): StringBuilder\n *     /**\n *     * Appends the string representation of the
specified object [value] to this string builder and returns this instance.\n *     * \n *     * The overall effect is exactly as if

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the [value] were converted to a string by the `value.toString()` method,\n
 * and then that string was appended to this string builder.\n
 *^n fun append(value: Any?): StringBuilder\n\n /**\n
 * Appends the string representation of the specified boolean [value] to this string builder and returns this instance.\n
 *^n * The overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n
 * and then that string was appended to this string builder.\n
 *^n @SinceKotlin("1.3")\n
 fun append(value: Boolean): StringBuilder\n\n /**\n
 * Appends characters in the specified character array [value] to this string builder and returns this instance.\n
 *^n * Characters are appended in order, starting at the index 0.\n
 *^n @SinceKotlin("1.4")\n
 @WasExperimental(ExperimentalStdlibApi::class)\n
 fun append(value: CharArray): StringBuilder\n\n /**\n
 * Appends the specified string [value] to this string builder and returns this instance.\n
 *^n * If [value] is `null`, then the four characters `"\null"` are appended.\n
 *^n @SinceKotlin("1.3")\n
 fun append(value: String?): StringBuilder\n\n /**\n
 * Returns the current capacity of this string builder.\n
 *^n * The capacity is the maximum length this string builder can have before an allocation occurs.\n
 *^n @SinceKotlin("1.3")\n
 @ExperimentalStdlibApi\n
 @Deprecated("Obtaining StringBuilder capacity is not supported in JS and common code.", level = DeprecationLevel.ERROR)\n
 fun capacity(): Int\n\n /**\n
 * Ensures that the capacity of this string builder is at least equal to the specified [minimumCapacity].\n
 *^n * If the current capacity is less than the [minimumCapacity], a new backing storage is allocated with greater capacity.\n
 * Otherwise, this method takes no action and simply returns.\n
 *^n @SinceKotlin("1.4")\n
 @WasExperimental(ExperimentalStdlibApi::class)\n
 fun ensureCapacity(minimumCapacity: Int)\n\n /**\n
 * Returns the index within this string builder of the first occurrence of the specified [string].\n
 *^n * Returns `-1` if the specified [string] does not occur in this string builder.\n
 *^n @SinceKotlin("1.4")\n
 @WasExperimental(ExperimentalStdlibApi::class)\n
 fun indexOf(string: String): Int\n\n /**\n
 * Returns the index within this string builder of the first occurrence of the specified [string],\n
 * starting at the specified [startIndex].\n
 *^n * Returns `-1` if the specified [string] does not occur in this string builder starting at the specified [startIndex].\n
 *^n @SinceKotlin("1.4")\n
 @WasExperimental(ExperimentalStdlibApi::class)\n
 fun indexOf(string: String, startIndex: Int): Int\n\n /**\n
 * Returns the index within this string builder of the last occurrence of the specified [string].\n
 * The last occurrence of empty string `""` is considered to be at the index equal to `this.length`.\n
 *^n * Returns `-1` if the specified [string] does not occur in this string builder.\n
 *^n @SinceKotlin("1.4")\n
 @WasExperimental(ExperimentalStdlibApi::class)\n
 fun lastIndexOf(string: String): Int\n\n /**\n
 * Returns the index within this string builder of the last occurrence of the specified [string],\n
 * starting from the specified [startIndex] toward the beginning.\n
 *^n * Returns `-1` if the specified [string] does not occur in this string builder starting at the specified [startIndex].\n
 *^n @SinceKotlin("1.4")\n
 @WasExperimental(ExperimentalStdlibApi::class)\n
 fun lastIndexOf(string: String, startIndex: Int): Int\n\n /**\n
 * Inserts the string representation of the specified boolean [value] into this string builder at the specified [index] and returns this instance.\n
 *^n * The overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n
 * and then that string was inserted into this string builder at the specified [index].\n
 *^n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n
 *^n @SinceKotlin("1.4")\n
 @WasExperimental(ExperimentalStdlibApi::class)\n
 fun insert(index: Int, value: Boolean): StringBuilder\n\n /**\n
 * Inserts the specified character [value] into this string builder at the specified [index] and returns this instance.\n
 *^n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n
 *^n @SinceKotlin("1.4")\n
 @WasExperimental(ExperimentalStdlibApi::class)\n
 fun insert(index: Int, value: Char): StringBuilder\n\n /**\n
 * Inserts characters in the specified character array [value] into this string builder at the specified [index] and returns this instance.\n
 *^n * The inserted characters go in same order as in the [value] character array, starting at [index].\n
 *^n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n
 *^n @SinceKotlin("1.4")\n
 @WasExperimental(ExperimentalStdlibApi::class)\n

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fun insert(index: Int, value: CharArray): StringBuilder\n\n /**\n * Inserts characters in the specified character
sequence [value] into this string builder at the specified [index] and returns this
instance.\n * \n * The inserted characters go in the same order as in the [value] character sequence, starting at
[index].\n * \n * @param index the position in this string builder to insert at.\n * @param value the character
sequence from which characters are inserted. If [value] is `null`, then the four characters `"\u0000\u0000\u0000\u0000"` are inserted.\n
*\n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string
builder.\n * \n @SinceKotlin("1.4")\n @WasExperimental(ExperimentalStdlibApi::class)\n fun
insert(index: Int, value: CharSequence?): StringBuilder\n\n /**\n * Inserts the string representation of the
specified object [value] into this string builder at the specified [index] and returns this instance.\n * \n * The
overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n * and then
that string was inserted into this string builder
at the specified [index].\n * \n * @throws IndexOutOfBoundsException if [index] is less than zero or greater
than the length of this string builder.\n * \n @SinceKotlin("1.4")\n
@WasExperimental(ExperimentalStdlibApi::class)\n fun insert(index: Int, value: Any?): StringBuilder\n\n /**\n
* Inserts the string [value] into this string builder at the specified [index] and returns this instance.\n * \n * If
[value] is `null`, then the four characters `"\u0000\u0000\u0000\u0000"` are inserted.\n * \n * @throws IndexOutOfBoundsException
if [index] is less than zero or greater than the length of this string builder.\n * \n @SinceKotlin("1.4")\n
@WasExperimental(ExperimentalStdlibApi::class)\n fun insert(index: Int, value: String?): StringBuilder\n\n
/**\n * Sets the length of this string builder to the specified [newLength].\n * \n * If the [newLength] is less
than the current length, it is changed to the specified [newLength].\n * Otherwise,
null characters '\u0000' are appended to this string builder until its length is less than the [newLength].\n * \n *
Note that in Kotlin/JS [set] operator function has non-constant execution time complexity.\n * Therefore,
increasing length of this string builder and then updating each character by index may slow down your program.\n
*\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] if [newLength] is less than zero.\n
*\n @SinceKotlin("1.4")\n @WasExperimental(ExperimentalStdlibApi::class)\n fun setLength(newLength:
Int)\n\n /**\n * Returns a new [String] that contains characters in this string builder at [startIndex] (inclusive)
and up to the [length] (exclusive).\n * \n * @throws IndexOutOfBoundsException if [startIndex] is less than
zero or greater than the length of this string builder.\n * \n @SinceKotlin("1.4")\n
@WasExperimental(ExperimentalStdlibApi::class)\n fun substring(startIndex:
Int): String\n\n /**\n * Returns a new [String] that contains characters in this string builder at [startIndex]
(inclusive) and up to the [endIndex] (exclusive).\n * \n * @throws IndexOutOfBoundsException or
[IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this string builder indices or when
`startIndex > endIndex`.\n * \n @SinceKotlin("1.4")\n @WasExperimental(ExperimentalStdlibApi::class)\n
fun substring(startIndex: Int, endIndex: Int): String\n\n /**\n * Attempts to reduce storage used for this string
builder.\n * \n * If the backing storage of this string builder is larger than necessary to hold its current
contents,\n * then it may be resized to become more space efficient.\n * Calling this method may, but is not
required to, affect the value of the [capacity] property.\n * \n @SinceKotlin("1.4")\n
@WasExperimental(ExperimentalStdlibApi::class)\n fun trimToSize()\n\n /**\n * Clears
the content of this string builder making it empty and returns this instance.\n * \n * @sample
samples.text.Strings.clearStringBuilder\n * \n @SinceKotlin("1.3")\n\n public expect fun StringBuilder.clear():
StringBuilder\n\n /**\n * Sets the character at the specified [index] to the specified [value].\n * \n * @throws
IndexOutOfBoundsException if [index] is out of bounds of this string builder.\n
*\n @SinceKotlin("1.4")\n @WasExperimental(ExperimentalStdlibApi::class)\n\n public expect operator fun
StringBuilder.set(index: Int, value: Char)\n\n /**\n * Replaces characters in the specified range of this string builder
with characters in the specified string [value] and returns this instance.\n * \n * @param startIndex the beginning
(inclusive) of the range to replace.\n * @param endIndex the end (exclusive) of the range to replace.\n * @param
value the string to replace with.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] if
[startIndex] is less than zero, greater than

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the length of this string builder, or `startIndex > endIndex`.\n

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*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun
StringBuilder.setRange(startIndex: Int, endIndex: Int, value: String): StringBuilder\n\n**\n * Removes the
character at the specified [index] from this string builder and returns this instance.\n * \n * If the `Char` at the
specified [index] is part of a supplementary code point, this method does not remove the entire supplementary
character.\n * \n * @param index the index of `Char` to remove.\n * \n * @throws IndexOutOfBoundsException if
[index] is out of bounds of this string builder.\n
```

```
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun
StringBuilder.deleteAt(index: Int): StringBuilder\n\n**\n * Removes characters in the specified range from this
string builder and returns this instance.\n * \n * @param startIndex the beginning (inclusive) of the range to
remove.\n * @param endIndex the
end (exclusive) of the range to remove.\n * \n * @throws IndexOutOfBoundsException or
[IllegalArgumentException] when [startIndex] is out of range of this string builder indices or when `startIndex >
endIndex`.\n *\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun
StringBuilder.deleteRange(startIndex: Int, endIndex: Int): StringBuilder\n\n**\n * Copies characters from this
string builder into the [destination] character array.\n * \n * @param destination the array to copy to.\n * @param
destinationOffset the position in the array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive)
of the range to copy, 0 by default.\n * @param endIndex the end (exclusive) of the range to copy, length of this
string builder by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when
[startIndex] or [endIndex] is out of range of this string builder indices or when `startIndex > endIndex`.\n * @throws
IndexOutOfBoundsException
when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when
that index is out of the [destination] array indices range.\n
```

```
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun
StringBuilder.toCharArray(destination: CharArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int =
this.length)\n\n**\n * Appends characters in a subarray of the specified character array [value] to this string builder
and returns this instance.\n * \n * Characters are appended in order, starting at specified [startIndex].\n * \n * @param
value the array from which characters are appended.\n * @param startIndex the beginning (inclusive) of the
subarray to append.\n * @param endIndex the end (exclusive) of the subarray to append.\n * \n * @throws
IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the
[value] array indices or when `startIndex
> endIndex`.\n *\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun
StringBuilder.appendRange(value: CharArray, startIndex: Int, endIndex: Int): StringBuilder\n\n**\n * Appends a
subsequence of the specified character sequence [value] to this string builder and returns this instance.\n * \n *
@param value the character sequence from which a subsequence is appended.\n * @param startIndex the beginning
(inclusive) of the subsequence to append.\n * @param endIndex the end (exclusive) of the subsequence to append.\n
*\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out
of range of the [value] character sequence indices or when `startIndex > endIndex`.\n
```

```
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun
StringBuilder.appendRange(value: CharSequence, startIndex: Int, endIndex: Int): StringBuilder\n\n**\n * Inserts
characters in a subarray of the specified
character array [value] into this string builder at the specified [index] and returns this instance.\n * \n * The inserted
characters go in same order as in the [value] array, starting at [index].\n * \n * @param index the position in this
string builder to insert at.\n * @param value the array from which characters are inserted.\n * @param startIndex the
beginning (inclusive) of the subarray to insert.\n * @param endIndex the end (exclusive) of the subarray to insert.\n
*\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out
of range of the [value] array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException if
[index] is less than zero or greater than the length of this string builder.\n
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*^@SinceKotlin("1.4")^@WasExperimental(ExperimentalStdlibApi::class)^npublic expect fun
StringBuilder.insertRange(index: Int, value: CharArray, startIndex: Int, endIndex: Int): StringBuilder\n\n/**\n *
Inserts characters
in a subsequence of the specified character sequence [value] into this string builder at the specified [index] and
returns this instance.\n *\n * The inserted characters go in the same order as in the [value] character sequence,
starting at [index].\n *\n * @param index the position in this string builder to insert at.\n * @param value the
character sequence from which a subsequence is inserted.\n * @param startIndex the beginning (inclusive) of the
subsequence to insert.\n * @param endIndex the end (exclusive) of the subsequence to insert.\n *\n * @throws
IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the
[value] character sequence indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException if
[index] is less than zero or greater than the length of this string builder.\n
*^@SinceKotlin("1.4")^@WasExperimental(ExperimentalStdlibApi::class)^npublic expect fun
StringBuilder.insertRange(index: Int,
value: CharSequence, startIndex: Int, endIndex: Int):
StringBuilder\n\n@Suppress("EXTENSION_SHADOWED_BY_MEMBER")^n@Deprecated("Use
append(value: Any?) instead", ReplaceWith("append(value = obj)"),
DeprecationLevel.WARNING)^n@kotlin.internal.InlineOnly\npublic inline fun StringBuilder.append(obj: Any?):
StringBuilder = this.append(obj)\n\n/**\n * Builds new string by populating newly created [StringBuilder] using
provided [builderAction]\n * and then converting it to [String].\n *^@kotlin.internal.InlineOnly\npublic inline fun
buildString(builderAction: String Builder.() -> Unit): String {\n contract { callsInPlace(builderAction,
InvocationKind.EXACTLY_ONCE) }\n return StringBuilder().apply(builderAction).toString()\n}\n\n/**\n * Builds new string by populating newly created [StringBuilder] initialized with the given [capacity]\n * using
provided [builderAction] and then converting it to [String].\n
*^@SinceKotlin("1.1")^n@kotlin.internal.InlineOnly\npublic inline fun buildString(capacity:
Int, builderAction: String Builder.() -> Unit): String {\n contract { callsInPlace(builderAction,
InvocationKind.EXACTLY_ONCE) }\n return
StringBuilder(capacity).apply(builderAction).toString()\n}\n\n/**\n * Appends all arguments to the given
StringBuilder.\n *^npublic fun StringBuilder.append(vararg value: String?): String Builder {\n for (item in
value)\n append(item)\n return this\n}\n\n/**\n * Appends all arguments to the given StringBuilder.\n
*^npublic fun StringBuilder.append(vararg value: Any?): String Builder {\n for (item in value)\n
append(item)\n return this\n}\n\n// KT-52336\n@Deprecated("Use appendRange instead.",
ReplaceWith("this.appendRange(str, offset, offset + len)"), level =
DeprecationLevel.ERROR)^n@kotlin.internal.InlineOnly^n@Suppress("UNUSED_PARAMETER")^npublic inline
fun StringBuilder.append(str: CharArray, offset: Int, len: Int): String Builder = throw NotImplementedError()\n\n/**
Appends a line feed character
(`\n`) to this StringBuilder. *^@SinceKotlin("1.4")^n@kotlin.internal.InlineOnly\npublic inline fun
StringBuilder.appendLine(): String Builder = append("\n")\n\n/** Appends [value] to this [StringBuilder], followed
by a line feed character (`\n`). *^@SinceKotlin("1.4")^n@kotlin.internal.InlineOnly\npublic inline fun
StringBuilder.appendLine(value: CharSequence?): String Builder = append(value).appendLine()\n\n/** Appends
[value] to this [StringBuilder], followed by a line feed character (`\n`).
*^@SinceKotlin("1.4")^n@kotlin.internal.InlineOnly\npublic inline fun StringBuilder.appendLine(value:
String?): String Builder = append(value).appendLine()\n\n/** Appends [value] to this [StringBuilder], followed by a
line feed character (`\n`). *^@SinceKotlin("1.4")^n@kotlin.internal.InlineOnly\npublic inline fun
StringBuilder.appendLine(value: Any?): String Builder = append(value).appendLine()\n\n/** Appends [value] to this
[StringBuilder], followed by a line feed character
(`\n`). *^@SinceKotlin("1.4")^n@kotlin.internal.InlineOnly\npublic inline fun StringBuilder.appendLine(value:
CharArray): String Builder = append(value).appendLine()\n\n/** Appends [value] to this [StringBuilder], followed
by a line feed character (`\n`). *^@SinceKotlin("1.4")^n@kotlin.internal.InlineOnly\npublic inline fun

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StringBuilder.appendLine(value: Char): StringBuilder = append(value).appendLine()\n\n/\*\* Appends [value] to this [StringBuilder], followed by a line feed character (`\n`).

```
*/\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline fun StringBuilder.appendLine(value: Boolean): StringBuilder = append(value).appendLine()\n", /*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\nimport kotlin.js.RegExp\n\n@kotlin.internal.InlineOnly\ninternal actual inline fun String.nativeIndexOf(ch: Char, fromIndex: Int): Int = nativeIndexOf(ch.toString(), fromIndex)\n\n@kotlin.internal.InlineOnly\ninternal actual inline fun String.nativeLastIndexOf(ch: Char, fromIndex: Int): Int = nativeLastIndexOf(ch.toString(), fromIndex)\n\n/**\n * Returns `true` if this string starts with the specified prefix.\n */\n\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic actual fun String.startsWith(prefix: String, ignoreCase: Boolean = false): Boolean {\n    if (!ignoreCase)\n        return nativeStartsWith(prefix, 0)\n    else\n        return regionMatches(0, prefix, 0, prefix.length, ignoreCase)\n}\n\n/**\n * Returns `true` if a substring of this string starting at the specified offset [startIndex] starts with the specified prefix.\n */\n\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic actual fun String.startsWith(prefix: String, startIndex: Int, ignoreCase: Boolean = false): Boolean {\n    if (!ignoreCase)\n        return nativeStartsWith(prefix, startIndex)\n    else\n        return regionMatches(startIndex, prefix, 0, prefix.length, ignoreCase)\n}\n\n/**\n * Returns `true` if this string ends with the specified suffix.\n */\n\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic actual fun String.endsWith(suffix: String, ignoreCase: Boolean = false): Boolean {\n    if (!ignoreCase)\n        return nativeEndsWith(suffix)\n    else\n        return regionMatches(length - suffix.length, suffix, 0, suffix.length, ignoreCase)\n}\n\n@Deprecated("Use Regex.matches() instead")\nReplaceWith("regex.toRegex().matches(this)")\n\n@DeprecatedSinceKotlin(warningSince = "1.6")\npublic fun String.matches(regex: String): Boolean {\n    @Suppress("DEPRECATION")\n    val result = this.match(regex)\n    return result != null && result.size != 0\n}\n\n/**\n * Returns `true` if this string is empty or consists solely of whitespace characters.\n */\n\n@sample samples.text.Strings.stringIsBlank\n\n/**\n * Returns `true` if this string is equal to [other], optionally ignoring character case.\n */\n\n/**\n * Two strings are considered to be equal if they have the same length and the same character at the same index.\n */\n\n/**\n * If [ignoreCase] is true, the result of `Char.uppercaseChar().lowercaseChar()` on each character is compared.\n */\n\n/**\n * @param ignoreCase `true` to ignore character case when comparing strings. By default `false`.\n */\n\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic actual fun String?.equals(other: String?, ignoreCase: Boolean = false): Boolean {\n    if (this == null) return other == null\n    if (other == null) return false\n    if (!ignoreCase) return this == other\n    if (this.length != other.length) return false\n    for (index in 0 until this.length) {\n        val thisChar = this[index]\n        val otherChar = other[index]\n        if (!thisChar.equals(otherChar, ignoreCase))\n            return false\n    }\n    return true\n}\n\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic actual fun CharSequence.regionMatches(thisOffset: Int, other: CharSequence, otherOffset: Int, length: Int, ignoreCase: Boolean = false): Boolean =\n    regionMatchesImpl(thisOffset, other, otherOffset, length, ignoreCase)\n\n/**\n * Returns a copy of this string having its first letter titlecased using the rules of the default locale,\n */\n\n/**\n * or the original string if it's empty or already starts with a title case letter.\n */\n\n/**\n * The title case of a character is usually the same as its upper case with several exceptions.\n */\n\n/**\n * The particular list of characters with the special title case form depends on the underlying platform.\n */\n\n/**\n * @sample samples.text.Strings.capitalize\n */\n\n@Deprecated("Use replaceFirstChar instead")\nReplaceWith("replaceFirstChar { if (it.isLowerCase()) it.titlecase() else it.toString() }")\n\n@DeprecatedSinceKotlin(warningSince =
```

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"1.5")\npublic actual fun String.capitalize(): String {\n    return if (isEmpty()) substring(0, 1).uppercase() +
substring(1) else this\n}\n\n/**\n * Returns a copy of this string having its first letter lowercased using the rules of
the default locale,\n * or the original string if it's empty or already starts with a lower case letter.\n *\n * @sample
samples.text.Strings.decapitalize\n */\n@Deprecated("Use replaceFirstChar instead.")\nReplaceWith("replaceFirstChar { it.lowercase() }")\n@DeprecatedSinceKotlin(warningSince = "1.5")\npublic
actual fun String.decapitalize(): String {\n    return if (isEmpty()) substring(0, 1).lowercase() + substring(1) else
this\n}\n\n/**\n * Returns a string containing this char sequence repeated [n] times.\n *\n * @throws
[IllegalArgumentException] when n < 0.\n *\n * @sample samples.text.Strings.repeat\n */\n\npublic actual fun
CharSequence.repeat(n: Int): String {\n    require(n >= 0) { "Count 'n' must be non-negative, but was $n." }\n
return
when (n) {\n    0 -> ""\n    1 -> this.toString()\n    else -> {\n        var result = ""\n        if (!isEmpty())
{\n            var s = this.toString()\n            var count = n\n            while (true) {\n                if ((count and 1)
== 1) {\n                    result += s\n                }\n                count = count ushr 1\n                if (count == 0)
{\n                    break\n                }\n                s += s\n            }\n            return result\n        }\n    }\n}\n\n/**\n * Returns a new string obtained by replacing all occurrences of the [oldValue] substring in this
string\n * with the specified [newValue] string.\n *\n * @sample samples.text.Strings.replace\n */\n\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\n\npublic actual fun
String.replace(oldValue: String, newValue: String, ignoreCase: Boolean = false): String =\n    nativeReplace(Regex.escape(oldValue),
if (ignoreCase) "gui" else "gu"), Regex.nativeEscapeReplacement(newValue))\n\n/**\n * Returns a new string
with all occurrences of [oldChar] replaced with [newChar].\n *\n * @sample samples.text.Strings.replace\n */\n\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\n\npublic actual fun
String.replace(oldChar: Char, newChar: Char, ignoreCase: Boolean = false): String =\n    nativeReplace(Regex.escape(oldChar.toString()), if (ignoreCase) "gui" else "gu"),
newChar.toString())\n\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\n\npublic actual
fun String.replaceFirst(oldValue: String, newValue: String, ignoreCase: Boolean = false): String =\n    nativeReplace(Regex.escape(oldValue), if (ignoreCase) "ui" else "u"),
Regex.nativeEscapeReplacement(newValue))\n\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGU
MENTS")\n\npublic actual fun String.replaceFirst(oldChar: Char, newChar: Char, ignoreCase: Boolean = false):
String =\n    nativeReplace(Regex.escape(oldChar.toString()),
if (ignoreCase) "ui" else "u"), newChar.toString())\n\n}/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/**\n * Returns the negative [size] if
[throwOnMalformed] is false, throws [CharacterCodingException] otherwise.\n *\n * @private\n */\nfun malformed(size: Int,
index: Int, throwOnMalformed: Boolean): Int {\n    if (throwOnMalformed) throw
CharacterCodingException("Malformed sequence starting at ${index - 1}")\n    return -size\n}\n\n/**\n * Returns
code point corresponding to UTF-16 surrogate pair,\n * where the first of the pair is the [high] and the second is in
the [string] at the [index].\n *\n * Returns zero if the pair is malformed and [throwOnMalformed] is false.\n *\n *
@throws CharacterCodingException if the pair is malformed and [throwOnMalformed] is true.\n *\n * @private\n */\nfun codePointFromSurrogate(string: String, high: Int, index: Int, endIndex: Int, throwOnMalformed: Boolean): Int
{\n    if (high !in 0xD800..0xDBFF || index >= endIndex) {\n        return malformed(0, index, throwOnMalformed)\n    }\n    val low = string[index].code\n    if (low !in 0xDC00..0xDFFF) {\n        return malformed(0, index,
throwOnMalformed)\n    }\n    return 0x10000 + ((high and 0x3FF) shl 10) or (low and 0x3FF)\n}\n\n/**\n *
Returns code point corresponding to UTF-8 sequence of two bytes,\n * where the first byte of the sequence is the
[byte1] and the second byte is in the [bytes] array at the [index].\n *\n * Returns zero if the sequence is malformed
and [throwOnMalformed] is false.\n *\n * @throws CharacterCodingException if the sequence of two bytes is
malformed and [throwOnMalformed] is true.\n *\n * @private\n */\nfun codePointFrom2(bytes: ByteArray, byte1: Int, index:
Int, endIndex: Int, throwOnMalformed: Boolean): Int {\n    if (byte1 and 0x1E == 0 || index >= endIndex)

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    {\n    return malformed(0, index, throwOnMalformed)\n } \n    val byte2 = bytes[index].toInt()\n    if (byte2 and 0xC0 != 0x80) {\n        return malformed(0, index, throwOnMalformed)\n    }\n    return (byte1 shl 6) xor byte2 xor 0xF80\n}\n\n/**\n * Returns code point corresponding to UTF-8 sequence of three bytes,\n * where the first byte of the sequence is the [byte1] and the others are in the [bytes] array starting from the [index].\n * Returns a non-positive value indicating number of bytes from [bytes] included in malformed sequence\n * if the sequence is malformed and [throwOnMalformed] is false.\n * @throws CharacterCodingException if the sequence of three bytes is malformed and [throwOnMalformed] is true.\n */\nprivate fun codePointFrom3(bytes: ByteArray, byte1: Int, index: Int, endIndex: Int, throwOnMalformed: Boolean): Int {\n    if (index >= endIndex) {\n        return malformed(0, index, throwOnMalformed)\n    }\n    val byte2 = bytes[index].toInt()\n    if (byte1 and 0xF == 0) {\n        if (byte2 and 0xE0 != 0xA0) {\n            // Non-shortest form\n            return malformed(0, index, throwOnMalformed)\n        }\n    } else if (byte1 and 0xF == 0xD) {\n        if (byte2 and 0xE0 != 0x80) {\n            // Surrogate code point\n            return malformed(0, index, throwOnMalformed)\n        }\n    } else if (byte2 and 0xC0 != 0x80) {\n        return malformed(0, index, throwOnMalformed)\n    }\n    if (index + 1 == endIndex) {\n        return malformed(1, index, throwOnMalformed)\n    }\n    val byte3 = bytes[index + 1].toInt()\n    if (byte3 and 0xC0 != 0x80) {\n        return malformed(1, index, throwOnMalformed)\n    }\n    return (byte1 shl 12) xor (byte2 shl 6) xor byte3 xor -0x1E080\n}\n\n/**\n * Returns code point corresponding to UTF-8 sequence of four bytes,\n * where the first byte of the sequence is the [byte1] and the others are in the [bytes] array starting from the [index].\n * Returns a non-positive value indicating number of bytes from [bytes] included in malformed sequence\n * if the sequence is malformed and [throwOnMalformed] is false.\n * @throws CharacterCodingException if the sequence of four bytes is malformed and [throwOnMalformed] is true.\n */\nprivate fun codePointFrom4(bytes: ByteArray, byte1: Int, index: Int, endIndex: Int, throwOnMalformed: Boolean): Int {\n    if (index >= endIndex) {\n        return malformed(0, index, throwOnMalformed)\n    }\n    val byte2 = bytes[index].toInt()\n    if (byte1 and 0xF == 0x0) {\n        if (byte2 and 0xF0 <= 0x80) {\n            // Non-shortest form\n            return malformed(0, index, throwOnMalformed)\n        }\n    } else if (byte1 and 0xF == 0x4) {\n        if (byte2 and 0xF0 != 0x80) {\n            // Out of Unicode code points domain (larger than U+10FFFF)\n            return malformed(0, index, throwOnMalformed)\n        }\n    } else if (byte1 and 0xF > 0x4) {\n        return malformed(0, index, throwOnMalformed)\n    } else if (byte2 and 0xC0 != 0x80) {\n        return malformed(0, index, throwOnMalformed)\n    }\n    if (index + 1 == endIndex) {\n        return malformed(1, index, throwOnMalformed)\n    }\n    val byte3 = bytes[index + 1].toInt()\n    if (byte3 and 0xC0 != 0x80) {\n        return malformed(1, index, throwOnMalformed)\n    }\n    if (index + 2 == endIndex) {\n        return malformed(2, index, throwOnMalformed)\n    }\n    val byte4 = bytes[index + 2].toInt()\n    if (byte4 and 0xC0 != 0x80) {\n        return malformed(2, index, throwOnMalformed)\n    }\n    return (byte1 shl 18) xor (byte2 shl 12) xor (byte3 shl 6) xor byte4 xor 0x381F80\n}\n\n/**\n * Maximum number of bytes needed to encode a single char.\n * Code points in `0..0x7F` are encoded in a single byte.\n * Code points in `0x80..0x7FF` are encoded in two bytes.\n * Code points in `0x800..0xD7FF` or in `0xE000..0xFFFF` are encoded in three bytes.\n * Surrogate code points in `0xD800..0xDFFF` are not Unicode scalar values, therefore aren't encoded.\n * Code points in `0x10000..0x10FFFF` are represented by a pair of surrogate `Char`s and are encoded in four bytes.\n */\nprivate const val MAX_BYTES_PER_CHAR = 3\n\n/**\n * The byte sequence a malformed UTF-16 char sequence is replaced by.\n */\nprivate val REPLACEMENT_BYTE_SEQUENCE: ByteArray = byteArrayOf(0xEF.toByte(), 0xBF.toByte(), 0xBD.toByte())\n\n/**\n * Encodes the [string] using UTF-8 and returns the resulting [ByteArray].\n * @param string the string to encode.\n * @param startIndex the start offset (inclusive) of the substring to encode.\n * @param endIndex the end offset (exclusive) of the substring to encode.\n * @param throwOnMalformed whether to throw on malformed char sequence or replace by the [REPLACEMENT_BYTE_SEQUENCE].\n * @throws CharacterCodingException if the char sequence is malformed and [throwOnMalformed] is true.\n */\ninternal fun encodeUtf8(string: String, startIndex: Int, endIndex: Int, throwOnMalformed: Boolean): ByteArray {\n    require(startIndex >= 0 && endIndex <= string.length && startIndex <= endIndex)\n    val bytes = ByteArray((endIndex - startIndex) * MAX_BYTES_PER_CHAR)\n    var byteIndex = 0\n    var charIndex =

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startIndex\n\n while (charIndex < endIndex) {\n    val code = string[charIndex++].code\n    when {\n    code < 0x80 ->\n        bytes[byteIndex++] = code.toByte()\n        code < 0x800 -> {\n    bytes[byteIndex++] = ((code shr 6) or 0xC0).toByte()\n        bytes[byteIndex++] = ((code and 0x3F) or 0x80).toByte()\n        }\n        code < 0xD800 || code >= 0xE000 -> {\n        bytes[byteIndex++] = ((code shr 12) or 0xE0).toByte()\n        bytes[byteIndex++] = (((code shr 6) and 0x3F) or 0x80).toByte()\n    bytes[byteIndex++] = ((code and 0x3F) or 0x80).toByte()\n        }\n        else -> { // Surrogate char value\n        val codePoint = codePointFromSurrogate(string, code, charIndex, endIndex, throwOnMalformed)\n        if (codePoint <= 0) {\n        bytes[byteIndex++] = REPLACEMENT_BYTE_SEQUENCE[0]\n        bytes[byteIndex++] = REPLACEMENT_BYTE_SEQUENCE[1]\n        bytes[byteIndex++] = REPLACEMENT_BYTE_SEQUENCE[2]\n        } else {\n        bytes[byteIndex++] = ((codePoint shr 18) or 0xF0).toByte()\n        bytes[byteIndex++] = (((codePoint shr 12) and 0x3F) or 0x80).toByte()\n        bytes[byteIndex++] = (((codePoint shr 6) and 0x3F) or 0x80).toByte()\n        bytes[byteIndex++] = ((codePoint and 0x3F) or 0x80).toByte()\n        charIndex++\n        }\n        }\n        }\n        }\n        return if (bytes.size == byteIndex) bytes else bytes.copyOf(byteIndex)\n    }\n}\n\n/**\n * The character a malformed UTF-8 byte sequence is replaced by.\n */\nprivate const val REPLACEMENT_CHAR = "\uFFFFD"\n\n * Decodes the UTF-8 [bytes] array and returns the resulting [String].\n * @param bytes the byte array to decode.\n * @param startIndex the start offset (inclusive) of the array to be decoded.\n * @param endIndex the end offset (exclusive) of the array to be encoded.\n * @param throwOnMalformed whether to throw on malformed byte sequence or replace by the [REPLACEMENT_CHAR].\n * @throws CharacterCodingException if the array is malformed UTF-8 byte sequence and [throwOnMalformed] is true.\n */\ninternal fun decodeUtf8(bytes: ByteArray, startIndex: Int, endIndex: Int, throwOnMalformed: Boolean): String {\n    require(startIndex >= 0 && endIndex <= bytes.size && startIndex <= endIndex)\n    var byteIndex = startIndex\n    val stringBuilder = StringBuilder()\n\n    while (byteIndex < endIndex) {\n        val byte = bytes[byteIndex++].toInt()\n        when {\n            byte >= 0 ->\n                stringBuilder.append(byte.toChar())\n            byte shr 5 == -2 -> {\n                val code = codePointFrom2(bytes, byte, byteIndex, endIndex, throwOnMalformed)\n                if (code <= 0) {\n                    stringBuilder.append(REPLACEMENT_CHAR)\n                    byteIndex += -code\n                } else {\n                    stringBuilder.append(code.toChar())\n                    byteIndex += 1\n                }\n            }\n            byte shr 4 == -2 -> {\n                val code = codePointFrom3(bytes, byte, byteIndex, endIndex, throwOnMalformed)\n                if (code <= 0) {\n                    stringBuilder.append(REPLACEMENT_CHAR)\n                    byteIndex += -code\n                } else {\n                    stringBuilder.append(code.toChar())\n                    byteIndex += 2\n                }\n            }\n            byte shr 3 == -2 -> {\n                val code = codePointFrom4(bytes, byte, byteIndex, endIndex, throwOnMalformed)\n                if (code <= 0) {\n                    stringBuilder.append(REPLACEMENT_CHAR)\n                    byteIndex += -code\n                } else {\n                    val high = (code - 0x10000) shr 10 or 0xD800\n                    val low = (code and 0x3FFF) or 0xDC00\n                    stringBuilder.append(high.toChar())\n                    stringBuilder.append(low.toChar())\n                    byteIndex += 3\n                }\n            }\n            else -> {\n                malformed(0, byteIndex, throwOnMalformed)\n                stringBuilder.append(REPLACEMENT_CHAR)\n            }\n        }\n    }\n\n    return stringBuilder.toString()\n}\n\n/**\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\npackage kotlin\n\n/**\n * Returns the detailed description of this throwable with its stack trace.\n * The detailed description includes:\n * - the short description (see [Throwable.toString]) of this throwable;\n * - the complete stack trace;\n * - detailed descriptions of the exceptions that were [suppressed][suppressedExceptions] in order to deliver this exception;\n * - the detailed description of each throwable in the [Throwable.cause] chain.\n */\n@SinceKotlin("1.4")\npublic actual fun Throwable.stackTraceToString(): String =

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ExceptionTraceBuilder().buildFor(this)\n\n/**\n * Prints the [detailed description][Throwable.stackTraceToString]
of this throwable to console error output.\n */\n@SinceKotlin("1.4")\npublic actual fun
Throwable.printStackTrace() {\n    console.error(this.stackTraceToString())\n}\n\n/**\n * Adds the specified
exception to the list of exceptions that were\n * suppressed in order to deliver this exception.\n
*/\n@SinceKotlin("1.4")\npublic actual fun Throwable.addSuppressed(exception: Throwable) {\n    if (this !==
exception) {\n        val suppressed = this.asDynamic()._suppressed.unsafeCast<MutableList<Throwable>?>()\n
if (suppressed == null) {\n            this.asDynamic()._suppressed
= mutableListOfOf(exception)\n        } else {\n            suppressed.add(exception)\n        }\n    }\n}\n\n/**\n * Returns
a list of all exceptions that were suppressed in order to deliver this exception.\n */\n@SinceKotlin("1.4")\npublic
actual val Throwable.suppressedExceptions: List<Throwable>\n    get() {\n        return
this.asDynamic()._suppressed?.unsafeCast<List<Throwable>>() ?: emptyList()\n    }\n\nprivate class
ExceptionTraceBuilder {\n    private val target = StringBuilder()\n    private val visited = arrayOf<Throwable>()\n
private var topStack: String = ""\n    private var topStackStart: Int = 0\n\n    fun buildFor(exception: Throwable):
String {\n        exception.dumpFullTrace("", "")\n        return target.toString()\n    }\n\n    private fun
hasSeen(exception: Throwable): Boolean = visited.any { it === exception }\n\n    private fun
Throwable.dumpFullTrace(indent: String, qualifier: String) {\n        this.dumpSelfTrace(indent, qualifier)
\n        // return\n        var cause = this.cause\n        while (cause != null) {\n            cause.dumpSelfTrace(indent, "Caused
by: ")\n        }\n        cause = cause.cause\n    }\n\n    private fun Throwable.dumpSelfTrace(indent:
String, qualifier: String): Boolean {\n        target.append(indent).append(qualifier)\n        val shortInfo =
this.toString()\n        if (hasSeen(this)) {\n            target.append("[CIRCULAR REFERENCE, SEE ABOVE:
"])\n        }\n        target.append(shortInfo).append("\\n")\n        return false\n    }\n\n    visited.asDynamic().push(this)\n\n    var
stack = this.asDynamic().stack as String?\n    if (stack != null) {\n        val stackStart =
stack.indexOf(shortInfo).let { if (it < 0) 0 else it + shortInfo.length }\n        if (stackStart == 0)
target.append(shortInfo).append("\\n")\n        if (topStack.isEmpty()) {\n            topStack = stack\n
topStackStart = stackStart\n        } else {\n
            stack = dropCommonFrames(stack, stackStart)\n        }\n        if (indent.isNotEmpty()) {\n            //
indent stack, but avoid indenting exception message lines\n            val messageLines = if (stackStart == 0) 0 else
1 + shortInfo.count { c -> c == "\\n" }\n            stack.lineSequence().forEachIndexed { index: Int, line: String ->}\n
                if (index >= messageLines) target.append(indent)\n                target.append(line).append("\\n")\n
            }\n        } else {\n            target.append(stack).append("\\n")\n        } else {\n
target.append(shortInfo).append("\\n")\n        }\n\n        val suppressed = suppressedExceptions\n        if
(suppressed.isNotEmpty()) {\n            val suppressedIndent = indent + "    "\n            for (s in suppressed) {\n
                s.dumpFullTrace(suppressedIndent, "Suppressed: ")\n            }\n        }\n        return true\n    }\n\n
private fun dropCommonFrames(stack: String, stackStart: Int): String {\n        var commonFrames: Int = 0\n
var lastBreak: Int = 0\n        var preLastBreak: Int = 0\n        for (pos in 0 until minOf(topStack.length -
topStackStart, stack.length - stackStart)) {\n            val c = stack[stack.lastIndex - pos]\n            if (c !=
topStack[topStack.lastIndex - pos]) break\n            if (c == "\\n") {\n                commonFrames += 1\n
preLastBreak = lastBreak\n                lastBreak = pos\n            }\n        }\n        if (commonFrames <= 1) return
stack\n        while (preLastBreak > 0 && stack[stack.lastIndex - (preLastBreak - 1)] == ' ')\n            preLastBreak --
\n        // leave 1 common frame to ease matching with the top exception stack\n        return
stack.dropLast(preLastBreak) + "... and ${commonFrames - 1} more common stack frames skipped"\n    }\n}\n\n"/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin.time\n\nimport kotlin.js.json\nimport kotlin.math.*\n\ninternal
actual inline val durationAssertionsEnabled: Boolean get() = true\n\ninternal actual fun
formatToExactDecimals(value: Double, decimals: Int): String {\n    val rounded = if (decimals == 0) {\n        value\n
    } else {\n        val pow = 10.0.pow(decimals)\n        JsMath.round(abs(value) * pow) / pow * sign(value)\n    }\n
return if (abs(rounded) < 1e21) {\n        // toFixed switches to scientific format after 1e21\n

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ValueTimeMark = actualSource.markNow()\n  actual override fun elapsedFrom(timeMark: ValueTimeMark):
Duration = actualSource.elapsedFrom(timeMark)\n  actual override fun differenceBetween(one: ValueTimeMark,
another: ValueTimeMark): Duration = actualSource.differenceBetween(one, another)\n\n  actual override fun
adjustReading(timeMark: ValueTimeMark, duration: Duration):
  ValueTimeMark =\n    actualSource.adjustReading(timeMark, duration)\n}\n\ninternal external interface Process
{\n  fun hrtime(time: Array<Double> = definedExternally):
Array<Double>}\n}\n\n@SinceKotlin("1.3")\n@ExperimentalTime\ninternal class HrTimeSource(private val
process: Process) : DefaultTimeSource {\n\n  override fun markNow(): ValueTimeMark =
ValueTimeMark(process.hrtime())\n  override fun elapsedFrom(timeMark: ValueTimeMark): Duration =\n    @Suppress("UNCHECKED_CAST")\n    process.hrtime(timeMark.reading as Array<Double>)\n    .let {
(seconds, nanos) -> seconds.toDuration(DurationUnit.SECONDS) +
nanos.toDuration(DurationUnit.NANOSECONDS) }\n\n  @Suppress("UNCHECKED_CAST")\n  override fun
differenceBetween(one: ValueTimeMark, another: ValueTimeMark): Duration {\n    val (s1, n1) = one.reading as
Array<Double>\n    val (s2, n2) = another.reading as Array<Double>\n    return (if (s1 == s2 && n1 == n2)
Duration.ZERO else (s1 - s2).toDuration(DurationUnit.SECONDS))
+ (n1 - n2).toDuration(DurationUnit.NANOSECONDS)\n  }\n\n  override fun adjustReading(timeMark:
ValueTimeMark, duration: Duration): ValueTimeMark =\n    @Suppress("UNCHECKED_CAST")\n    (timeMark.reading as Array<Double>).let { (seconds, nanos) ->\n      duration.toComponents { _, addNanos ->\n
        val resultSeconds = sumCheckNaN(seconds + truncate(duration.toDouble(DurationUnit.SECONDS)))\n
        arrayOf<Double>(resultSeconds, if (resultSeconds.isFinite()) nanos + addNanos else 0.0)\n      }\n
    }.let(TimeSource.Monotonic::ValueTimeMark)\n}\n\n  override fun toString(): String =
`"TimeSource(process.hrtime())"\n}\n}\n\n@SinceKotlin("1.3")\n@ExperimentalTime\ninternal class
PerformanceTimeSource(val performance: Performance) : \n  DefaultTimeSource { //
AbstractDoubleTimeSource(unit = DurationUnit.MILLISECONDS) {\n  private fun read(): Double =
performance.now()\n\n  override fun markNow(): ValueTimeMark
= ValueTimeMark(read())\n  override fun elapsedFrom(timeMark: ValueTimeMark): Duration = (read() -
timeMark.reading as Double).milliseconds\n\n  override fun differenceBetween(one: ValueTimeMark, another:
ValueTimeMark): Duration {\n    val ms1 = one.reading as Double\n    val ms2 = another.reading as Double\n
return if (ms1 == ms2) Duration.ZERO else (ms1 - ms2).milliseconds\n  }\n\n  override fun
adjustReading(timeMark: ValueTimeMark, duration: Duration): ValueTimeMark =\n    ValueTimeMark(sumCheckNaN(timeMark.reading as Double +
duration.toDouble(DurationUnit.MILLISECONDS))\n)\n\n  override fun toString(): String =
`"TimeSource(self.performance.now())"\n}\n}\n\n@SinceKotlin("1.3")\n@ExperimentalTime\ninternal object
DateNowTimeSource : DefaultTimeSource {\n  private fun read(): Double = kotlin.js.Date.now()\n\n  override
fun markNow(): ValueTimeMark = ValueTimeMark(read())\n  override fun elapsedFrom(timeMark:
ValueTimeMark): Duration = (read()
- timeMark.reading as Double).milliseconds\n\n  override fun differenceBetween(one: ValueTimeMark, another:
ValueTimeMark): Duration {\n    val ms1 = one.reading as Double\n    val ms2 = another.reading as Double\n
return if (ms1 == ms2) Duration.ZERO else (ms1 - ms2).milliseconds\n  }\n\n  override fun
adjustReading(timeMark: ValueTimeMark, duration: Duration): ValueTimeMark =\n    ValueTimeMark(sumCheckNaN(timeMark.reading as Double +
duration.toDouble(DurationUnit.MILLISECONDS))\n)\n\n  override fun toString(): String =
`"TimeSource(Date.now())"\n}\n}\n\nprivate fun sumCheckNaN(value: Double): Double = value.also { if (it.isNaN())
throw IllegalArgumentException("Summing infinities of different signs") } ,"/*\n * Copyright 2010-2020
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlinx.dom\n\nimport
org.w3c.dom.*\nimport

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kotlin.contracts.*\n\n/**\n * Creates a new element with the specified [name].\n * The element is initialized
with the specified [init] function.\n *\n@SinceKotlin("1.4")\npublic fun Document.createElement(name: String,
init: Element.() -> Unit): Element {\n    contract { callsInPlace(init, InvocationKind.EXACTLY_ONCE) }\n    return createElement(name).apply(init)\n}\n\n/**\n * Appends a newly created element with the specified [name] to
this element.\n * The element is initialized with the specified [init] function.\n
*\n@SinceKotlin("1.4")\npublic fun Element.appendChild(name: String, init: Element.() -> Unit): Element {\n
    contract { callsInPlace(init, InvocationKind.EXACTLY_ONCE) }\n    return
ownerDocument!!.createElement(name, init).also { appendChild(it) }\n}\n\n"/\n * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt
file.\n *\n\npackage kotlinx.dom\n\nimport org.w3c.dom.*\n\n/** Returns true if the element has the given CSS
class style in its 'class' attribute *\n@SinceKotlin("1.4")\nfun Element.hasClass(cssClass: String): Boolean =
className.matches("\\s*(^|\\s+)$cssClass(\\s+|$)".toRegex())\n\n/**\n * Adds CSS class to element. Has no
effect if all specified classes are already in class attribute of the element\n *\n * @return true if at least one class has
been added\n *\n@SinceKotlin("1.4")\nfun Element.addClass(vararg cssClasses: String): Boolean {\n    val
missingClasses = cssClasses.filterNot { hasClass(it) }\n    if (missingClasses.isNotEmpty()) {\n        val
presentClasses = className.trim()\n        className = buildString {\n            append(presentClasses)\n            if
(!presentClasses.isEmpty()) {\n                append(" ")\n            }\n            missingClasses.joinTo(this, " ")
}\n        return true\n    }\n    return false\n}\n\n/**\n * Removes all [cssClasses] from element. Has no effect if all specified classes are missing in class attribute of the
element\n *\n * @return true if at least one class has been removed\n *\n@SinceKotlin("1.4")\nfun
Element.removeClass(vararg cssClasses: String): Boolean {\n    if (cssClasses.any { hasClass(it) }) {\n        val
toBeRemoved = cssClasses.toSet()\n        className = className.trim().split("\\s+".toRegex()).filter { it !in
toBeRemoved }.joinToString(" ")
return true\n    }\n    return false\n}\n\n"/\n * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("StringsKt")\n\npackage
kotlin.text\n\n/**\n * Converts the string into a regular expression [Regex] with the default options.\n
*\n@kotlin.internal.InlineOnly\npublic inline
fun String.toRegex(): Regex = Regex(this)\n\n/**\n * Converts the string into a regular expression [Regex] with the
specified single [option].\n *\n@kotlin.internal.InlineOnly\npublic inline fun String.toRegex(option: RegexOption):
Regex = Regex(this, option)\n\n/**\n * Converts the string into a regular expression [Regex] with the specified set
of [options].\n *\n@kotlin.internal.InlineOnly\npublic inline fun String.toRegex(options: Set<RegexOption>):
Regex = Regex(this, options)\n\n"/\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n *\n\npackage kotlinx.dom\n\nimport org.w3c.dom.*\n\n/**\n * Gets a value indicating
whether this node is a TEXT_NODE or a CDATA_SECTION_NODE.\n *\n@SinceKotlin("1.4")\npublic val
Node.isText: Boolean\n    get() = nodeType == Node.TEXT_NODE || nodeType ==
Node.CDATA_SECTION_NODE\n\n/**\n *
Gets a value indicating whether this node is an [Element].\n *\n@SinceKotlin("1.4")\npublic val Node.isElement:
Boolean\n    get() = nodeType == Node.ELEMENT_NODE\n\n"/\n * Copyright 2010-2018 JetBrains s.r.o. and
Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\n *\n\npackage kotlinx.dom\n\nimport org.w3c.dom.*\n\n/**
Removes all the children from this node. *\n@SinceKotlin("1.4")\npublic fun Node.clear() {\n    while
(hasChildNodes()) {\n        removeChild(firstChild!!)\n    }\n}\n\n/**\n * Creates text node and append it to the
element.\n *\n * @return this element\n *\n@SinceKotlin("1.4")\nfun Element.appendChildText(text: String): Element
{\n    appendChild(ownerDocument!!.createTextNode(text))\n    return this\n}\n\n"/\n * Copyright 2010-2019
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the

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Apache 2.0 license

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that can be found in the license/LICENSE.txt file.\n *\n\npackage org.w3c.dom\n\n@Deprecated("Use\nUnionMessagePortOrWindowProxy instead.", ReplaceWith("UnionMessagePortOrWindowProxy"))\ntypealias\nUnionMessagePortOrWindow = UnionMessagePortOrWindowProxy\n\n@Deprecated("Use `as` instead.",\nReplaceWith("`as`"))\nvar HTMLLinkElement.as_ get() = `as`\n set(value) {\n `as` = value\n }\n\n@Deprecated("Use `is` instead.", ReplaceWith("`is`"))\nvar ElementCreationOptions.is_ get() = `is`\n set(value) {\n `is` = value\n }"/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming\nLanguage contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the\nlicense/LICENSE.txt file.\n *\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See\ngithub.com/kotlin/dukat for details\n\npackage org.khronos.webgl\n\nimport kotlin.js.*\nimport\norg.w3c.dom.*\nimport org.w3c.dom.events.*\n\npublic external\ninterface WebGLContextAttributes {\n var alpha: Boolean? /* = true */\n get() = definedExternally\n set(value) = definedExternally\n var depth: Boolean? /* = true */\n get() = definedExternally\n set(value)\n = definedExternally\n var stencil: Boolean? /* = false */\n get() = definedExternally\n set(value) =\n definedExternally\n var antialias: Boolean? /* = true */\n get() = definedExternally\n set(value) =\n definedExternally\n var premultipliedAlpha: Boolean? /* = true */\n get() = definedExternally\n set(value) = definedExternally\n var preserveDrawingBuffer: Boolean? /* = false */\n get() =\n definedExternally\n set(value) = definedExternally\n var preferLowPowerToHighPerformance: Boolean? /* =\n false */\n get() = definedExternally\n set(value) = definedExternally\n var failIfMajorPerformanceCaveat:\n Boolean? /* = false */\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",\n"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun WebGLContextAttributes(alpha:\nBoolean? = true, depth: Boolean? = true, stencil: Boolean? = false, antialias: Boolean? = true, premultipliedAlpha:\nBoolean? = true, preserveDrawingBuffer: Boolean? = false, preferLowPowerToHighPerformance: Boolean? = false,\nfailIfMajorPerformanceCaveat: Boolean? = false): WebGLContextAttributes {\n val o = js("{}")\no["alpha"] = alpha\n o["depth"] = depth\n o["stencil"] = stencil\n o["antialias"] = antialias\n o["premultipliedAlpha"] = premultipliedAlpha\n o["preserveDrawingBuffer"] = preserveDrawingBuffer\n o["preferLowPowerToHighPerformance"] = preferLowPowerToHighPerformance\n o["failIfMajorPerformanceCaveat"] = failIfMajorPerformanceCaveat\n return o\n}\n\npublic external abstract\nclass WebGLObject\n\n/**\n * Exposes the JavaScript\n[WebGLBuffer](https://developer.mozilla.org/en/docs/Web/API/WebGLBuffer)\nto Kotlin\n *\n\npublic external abstract class WebGLBuffer : WebGLObject\n\n/**\n * Exposes the JavaScript\n[WebGLFramebuffer](https://developer.mozilla.org/en/docs/Web/API/WebGLFramebuffer) to Kotlin\n *\n\npublic\nexternal abstract class WebGLFramebuffer : WebGLObject\n\n/**\n * Exposes the JavaScript\n[WebGLProgram](https://developer.mozilla.org/en/docs/Web/API/WebGLProgram) to Kotlin\n *\n\npublic external\nabstract class WebGLProgram : WebGLObject\n\n/**\n * Exposes the JavaScript\n[WebGLRenderbuffer](https://developer.mozilla.org/en/docs/Web/API/WebGLRenderbuffer) to Kotlin\n *\n\npublic\nexternal abstract class WebGLRenderbuffer : WebGLObject\n\n/**\n * Exposes the JavaScript\n[WebGLShader](https://developer.mozilla.org/en/docs/Web/API/WebGLShader) to Kotlin\n *\n\npublic external\nabstract class WebGLShader : WebGLObject\n\n/**\n * Exposes the JavaScript\n[WebGLTexture](https://developer.mozilla.org/en/docs/Web/API/WebGLTexture) to Kotlin\n *\n\npublic\nexternal abstract class WebGLTexture : WebGLObject\n\n/**\n * Exposes the JavaScript\n[WebGLUniformLocation](https://developer.mozilla.org/en/docs/Web/API/WebGLUniformLocation) to Kotlin\n *\n\npublic\nexternal abstract class WebGLUniformLocation\n\n/**\n * Exposes the JavaScript\n[WebGLActiveInfo](https://developer.mozilla.org/en/docs/Web/API/WebGLActiveInfo) to Kotlin\n *\n\npublic\nexternal abstract class WebGLActiveInfo {\n open val size: Int\n open val type: Int\n open val name:\nString\n}\n\n/**\n * Exposes the JavaScript\n[WebGLShaderPrecisionFormat](https://developer.mozilla.org/en/docs/Web/API/WebGLShaderPrecisionFormat) to
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Kotlin\n */\npublic external abstract class WebGLShaderPrecisionFormat {\n    open val rangeMin: Int\n    open val rangeMax: Int\n    open val precision: Int\n}\n\n@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")\npublic external interface WebGLRenderingContextBase {\n    val canvas: HTMLCanvasElement\n    val drawingBufferWidth: Int\n    val drawingBufferHeight: Int\n    fun getContextAttributes(): WebGLContextAttributes?\n    fun isContextLost(): Boolean\n    fun getSupportedExtensions(): Array<String>?\n    fun getExtension(name: String): dynamic\n    fun activeTexture(texture: Int)\n    fun attachShader(program: WebGLProgram?, shader: WebGLShader?)\n    fun bindAttribLocation(program: WebGLProgram?, index: Int, name: String)\n    fun bindBuffer(target: Int, buffer: WebGLBuffer?)\n    fun bindFramebuffer(target: Int, framebuffer: WebGLFramebuffer?)\n    fun bindRenderbuffer(target: Int, renderbuffer: WebGLRenderbuffer?)\n    fun bindTexture(target: Int, texture: WebGLTexture?)\n    fun blendColor(red: Float, green: Float, blue: Float, alpha: Float)\n    fun blendEquation(mode: Int)\n    fun blendEquationSeparate(modeRGB: Int, modeAlpha: Int)\n    fun blendFunc(sfactor: Int, dfactor: Int)\n    fun blendFuncSeparate(srcRGB: Int, dstRGB: Int, srcAlpha: Int, dstAlpha: Int)\n    fun bufferData(target: Int, size: Int, usage: Int)\n        fun bufferData(target: Int, data: BufferDataSource?, usage: Int)\n        fun bufferSubData(target: Int, offset: Int, data: BufferDataSource?)\n    fun checkFramebufferStatus(target: Int): Int\n    fun clear(mask: Int)\n    fun clearColor(red: Float, green: Float, blue: Float, alpha: Float)\n    fun clearDepth(depth: Float)\n    fun clearStencil(s: Int)\n    fun colorMask(red: Boolean, green: Boolean, blue: Boolean, alpha: Boolean)\n    fun compileShader(shader: WebGLShader?)\n    fun compressedTexImage2D(target: Int, level: Int, internalformat: Int, width: Int, height: Int, border: Int, data: ArrayBufferView)\n    fun compressedTexSubImage2D(target: Int, level: Int, xoffset: Int, yoffset: Int, width: Int, height: Int, format: Int, data: ArrayBufferView)\n    fun copyTexImage2D(target: Int, level: Int, internalformat: Int, x: Int, y: Int, width: Int, height: Int, border: Int)\n    fun copyTexSubImage2D(target: Int, level: Int, xoffset: Int, yoffset: Int, x: Int, y: Int, width: Int, height: Int)\n    fun createBuffer(): WebGLBuffer?\n    fun createFramebuffer(): WebGLFramebuffer?\n    fun createProgram(): WebGLProgram?\n    fun createRenderbuffer(): WebGLRenderbuffer?\n    fun createShader(type: Int): WebGLShader?\n    fun createTexture(): WebGLTexture?\n    fun cullFace(mode: Int)\n    fun deleteBuffer(buffer: WebGLBuffer?)\n    fun deleteFramebuffer(framebuffer: WebGLFramebuffer?)\n    fun deleteProgram(program: WebGLProgram?)\n    fun deleteRenderbuffer(renderbuffer: WebGLRenderbuffer?)\n    fun deleteShader(shader: WebGLShader?)\n    fun deleteTexture(texture: WebGLTexture?)\n    fun depthFunc(func: Int)\n    fun depthMask(flag: Boolean)\n    fun depthRange(zNear: Float, zFar: Float)\n    fun detachShader(program: WebGLProgram?, shader: WebGLShader?)\n    fun disable(cap: Int)\n    fun disableVertexAttribArray(index: Int)\n    fun drawArrays(mode: Int, first: Int, count: Int)\n    fun drawElements(mode: Int, count: Int, type: Int, offset: Int)\n    fun enable(cap: Int)\n    fun enableVertexAttribArray(index: Int)\n    fun finish()\n    fun flush()\n    fun framebufferRenderbuffer(target: Int, attachment: Int, renderbuffertarget: Int, renderbuffer: WebGLRenderbuffer?)\n    fun framebufferTexture2D(target: Int, attachment: Int, textarget: Int, texture: WebGLTexture?, level: Int)\n    fun frontFace(mode: Int)\n    fun generateMipmap(target: Int)\n    fun getActiveAttrib(program: WebGLProgram?, index: Int): WebGLActiveInfo?\n    fun getActiveUniform(program: WebGLProgram?, index: Int): WebGLActiveInfo?\n    fun getAttachedShaders(program: WebGLProgram?): Array<WebGLShader>?\n    fun getAttribLocation(program: WebGLProgram?, name: String): Int\n    fun getBufferParameter(target: Int, pname: Int): Any?\n    fun getParameter(pname: Int): Any?\n    fun getError(): Int\n    fun getFramebufferAttachmentParameter(target: Int, attachment: Int, pname: Int): Any?\n    fun getProgramParameter(program: WebGLProgram?, pname: Int): Any?\n    fun getProgramInfoLog(program: WebGLProgram?): String?\n    fun getRenderbufferParameter(target: Int, pname: Int): Any?\n    fun getShaderParameter(shader: WebGLShader?, pname: Int): Any?\n    fun getShaderPrecisionFormat(shaderType: Int, precisionType: Int): WebGLShaderPrecisionFormat?\n    fun getShaderInfoLog(shader: WebGLShader?): String?\n    fun getShaderSource(shader: WebGLShader?): String?\n    fun getTexParameter(target: Int, pname: Int): Any?

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fun getUniform(program: WebGLProgram?, location: WebGLUniformLocation?): Any?\n fun
getUniformLocation(program: WebGLProgram?, name: String): WebGLUniformLocation?\n fun
getVertexAttrib(index: Int, pname: Int): Any?\n fun getVertexAttribOffset(index: Int, pname: Int): Int\n fun
hint(target: Int, mode: Int)\n fun isBuffer(buffer: WebGLBuffer?): Boolean\n fun isEnabled(cap: Int): Boolean\n
fun isFramebuffer(framebuffer: WebGLFramebuffer?): Boolean\n fun isProgram(program: WebGLProgram?):
Boolean\n fun isRenderbuffer(renderbuffer:
WebGLRenderbuffer?): Boolean\n fun isShader(shader: WebGLShader?): Boolean\n fun isTexture(texture:
WebGLTexture?): Boolean\n fun lineWidth(width: Float)\n fun linkProgram(program: WebGLProgram?)\n
fun pixelStorei(pname: Int, param: Int)\n fun polygonOffset(factor: Float, units: Float)\n fun readPixels(x: Int, y:
Int, width: Int, height: Int, format: Int, type: Int, pixels: ArrayBufferView?)\n fun renderbufferStorage(target: Int,
internalformat: Int, width: Int, height: Int)\n fun sampleCoverage(value: Float, invert: Boolean)\n fun scissor(x:
Int, y: Int, width: Int, height: Int)\n fun shaderSource(shader: WebGLShader?, source: String)\n fun
stencilFunc(func: Int, ref: Int, mask: Int)\n fun stencilFuncSeparate(face: Int, func: Int, ref: Int, mask: Int)\n fun
stencilMask(mask: Int)\n fun stencilMaskSeparate(face: Int, mask: Int)\n fun stencilOp(fail: Int, zfail: Int, zpass:
Int)\n fun stencilOpSeparate(face: Int, fail: Int, zfail: Int,
zpass: Int)\n fun texImage2D(target: Int, level: Int, internalformat: Int, width: Int, height: Int, border: Int, format:
Int, type: Int, pixels: ArrayBufferView?)\n fun texImage2D(target: Int, level: Int, internalformat: Int, format: Int,
type: Int, source: TexImageSource?)\n fun texParameterf(target: Int, pname: Int, param: Float)\n fun
texParameteri(target: Int, pname: Int, param: Int)\n fun texSubImage2D(target: Int, level: Int, xoffset: Int, yoffset:
Int, width: Int, height: Int, format: Int, type: Int, pixels: ArrayBufferView?)\n fun texSubImage2D(target: Int,
level: Int, xoffset: Int, yoffset: Int, format: Int, type: Int, source: TexImageSource?)\n fun uniform1f(location:
WebGLUniformLocation?, x: Float)\n fun uniform1fv(location: WebGLUniformLocation?, v: Float32Array)\n
fun uniform1fv(location: WebGLUniformLocation?, v: Array<Float>)\n fun uniform1i(location:
WebGLUniformLocation?, x: Int)\n fun uniform1iv(location: WebGLUniformLocation?, v:
Int32Array)\n fun uniform1iv(location: WebGLUniformLocation?, v: Array<Int>)\n fun uniform2f(location:
WebGLUniformLocation?, x: Float, y: Float)\n fun uniform2fv(location: WebGLUniformLocation?, v:
Float32Array)\n fun uniform2fv(location: WebGLUniformLocation?, v: Array<Float>)\n fun
uniform2i(location: WebGLUniformLocation?, x: Int, y: Int)\n fun uniform2iv(location:
WebGLUniformLocation?, v: Int32Array)\n fun uniform2iv(location: WebGLUniformLocation?, v: Array<Int>)\n
fun uniform3f(location: WebGLUniformLocation?, x: Float, y: Float, z: Float)\n fun uniform3fv(location:
WebGLUniformLocation?, v: Float32Array)\n fun uniform3fv(location: WebGLUniformLocation?, v:
Array<Float>)\n fun uniform3i(location: WebGLUniformLocation?, x: Int, y: Int, z: Int)\n fun
uniform3iv(location: WebGLUniformLocation?, v: Int32Array)\n fun uniform3iv(location:
WebGLUniformLocation?, v: Array<Int>)\n fun uniform4f(location: WebGLUniformLocation?, x: Float, y: Float,
z: Float, w: Float)\n fun uniform4fv(location: WebGLUniformLocation?, v: Float32Array)\n fun
uniform4fv(location: WebGLUniformLocation?, v: Array<Float>)\n fun uniform4i(location:
WebGLUniformLocation?, x: Int, y: Int, z: Int, w: Int)\n fun uniform4iv(location: WebGLUniformLocation?, v:
Int32Array)\n fun uniform4iv(location: WebGLUniformLocation?, v: Array<Int>)\n fun
uniformMatrix2fv(location: WebGLUniformLocation?, transpose: Boolean, value: Float32Array)\n fun
uniformMatrix2fv(location: WebGLUniformLocation?, transpose: Boolean, value: Array<Float>)\n fun
uniformMatrix3fv(location: WebGLUniformLocation?, transpose: Boolean, value: Float32Array)\n fun
uniformMatrix3fv(location: WebGLUniformLocation?, transpose: Boolean, value: Array<Float>)\n fun
uniformMatrix4fv(location: WebGLUniformLocation?, transpose: Boolean, value: Float32Array)\n fun
uniformMatrix4fv(location: WebGLUniformLocation?, transpose: Boolean, value: Array<Float>)\n fun
useProgram(program:
WebGLProgram?)\n fun validateProgram(program: WebGLProgram?)\n fun vertexAttrib1f(index: Int, x:
Float)\n fun vertexAttrib1fv(index: Int, values: dynamic)\n fun vertexAttrib2f(index: Int, x: Float, y: Float)\n
fun vertexAttrib2fv(index: Int, values: dynamic)\n fun vertexAttrib3f(index: Int, x: Float, y: Float, z: Float)\n fun

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vertexAttrib3fv(index: Int, values: dynamic)\n fun vertexAttrib4f(index: Int, x: Float, y: Float, z: Float, w: Float)\n
fun vertexAttrib4fv(index: Int, values: dynamic)\n fun vertexAttribPointer(index: Int, size: Int, type: Int,
normalized: Boolean, stride: Int, offset: Int)\n fun viewport(x: Int, y: Int, width: Int, height: Int)\n\n companion
object {\n val DEPTH_BUFFER_BIT: Int\n val STENCIL_BUFFER_BIT: Int\n val
COLOR_BUFFER_BIT: Int\n val POINTS: Int\n val LINES: Int\n val LINE_LOOP: Int\n val
LINE_STRIP: Int\n val TRIANGLES: Int\n val TRIANGLE_STRIP:
Int\n val TRIANGLE_FAN: Int\n val ZERO: Int\n val ONE: Int\n val SRC_COLOR: Int\n
val ONE_MINUS_SRC_COLOR: Int\n val SRC_ALPHA: Int\n val ONE_MINUS_SRC_ALPHA: Int\n
val DST_ALPHA: Int\n val ONE_MINUS_DST_ALPHA: Int\n val DST_COLOR: Int\n val
ONE_MINUS_DST_COLOR: Int\n val SRC_ALPHA_SATURATE: Int\n val FUNC_ADD: Int\n val
BLEND_EQUATION: Int\n val BLEND_EQUATION_RGB: Int\n val BLEND_EQUATION_ALPHA:
Int\n val FUNC_SUBTRACT: Int\n val FUNC_REVERSE_SUBTRACT: Int\n val
BLEND_DST_RGB: Int\n val BLEND_SRC_RGB: Int\n val BLEND_DST_ALPHA: Int\n val
BLEND_SRC_ALPHA: Int\n val CONSTANT_COLOR: Int\n val ONE_MINUS_CONSTANT_COLOR:
Int\n val CONSTANT_ALPHA: Int\n val ONE_MINUS_CONSTANT_ALPHA: Int\n val
BLEND_COLOR: Int\n val ARRAY_BUFFER: Int\n val ELEMENT_ARRAY_BUFFER: Int\n val
ARRAY_BUFFER_BINDING:
Int\n val ELEMENT_ARRAY_BUFFER_BINDING: Int\n val STREAM_DRAW: Int\n val
STATIC_DRAW: Int\n val DYNAMIC_DRAW: Int\n val BUFFER_SIZE: Int\n val
BUFFER_USAGE: Int\n val CURRENT_VERTEX_ATTRIB: Int\n val FRONT: Int\n val BACK:
Int\n val FRONT_AND_BACK: Int\n val CULL_FACE: Int\n val BLEND: Int\n val DITHER:
Int\n val STENCIL_TEST: Int\n val DEPTH_TEST: Int\n val SCISSOR_TEST: Int\n val
POLYGON_OFFSET_FILL: Int\n val SAMPLE_ALPHA_TO_COVERAGE: Int\n val
SAMPLE_COVERAGE: Int\n val NO_ERROR: Int\n val INVALID_ENUM: Int\n val
INVALID_VALUE: Int\n val INVALID_OPERATION: Int\n val OUT_OF_MEMORY: Int\n val CW:
Int\n val CCW: Int\n val LINE_WIDTH: Int\n val ALIASED_POINT_SIZE_RANGE: Int\n val
ALIASED_LINE_WIDTH_RANGE: Int\n val CULL_FACE_MODE: Int\n val FRONT_FACE: Int\n
val DEPTH_RANGE: Int\n val DEPTH_WRITEMASK: Int\n val DEPTH_CLEAR_VALUE: Int\n
val DEPTH_FUNC: Int\n val STENCIL_CLEAR_VALUE: Int\n val STENCIL_FUNC: Int\n val
STENCIL_FAIL: Int\n val STENCIL_PASS_DEPTH_FAIL: Int\n val STENCIL_PASS_DEPTH_PASS:
Int\n val STENCIL_REF: Int\n val STENCIL_VALUE_MASK: Int\n val STENCIL_WRITEMASK:
Int\n val STENCIL_BACK_FUNC: Int\n val STENCIL_BACK_FAIL: Int\n val
STENCIL_BACK_PASS_DEPTH_FAIL: Int\n val STENCIL_BACK_PASS_DEPTH_PASS: Int\n val
STENCIL_BACK_REF: Int\n val STENCIL_BACK_VALUE_MASK: Int\n val
STENCIL_BACK_WRITEMASK: Int\n val VIEWPORT: Int\n val SCISSOR_BOX: Int\n val
COLOR_CLEAR_VALUE: Int\n val COLOR_WRITEMASK: Int\n val UNPACK_ALIGNMENT: Int\n
val PACK_ALIGNMENT: Int\n val MAX_TEXTURE_SIZE: Int\n val MAX_VIEWPORT_DIMS: Int\n
val SUBPIXEL_BITS: Int\n
val RED_BITS: Int\n val GREEN_BITS: Int\n val BLUE_BITS: Int\n val ALPHA_BITS: Int\n
val DEPTH_BITS: Int\n val STENCIL_BITS: Int\n val POLYGON_OFFSET_UNITS: Int\n val
POLYGON_OFFSET_FACTOR: Int\n val TEXTURE_BINDING_2D: Int\n val SAMPLE_BUFFERS:
Int\n val SAMPLES: Int\n val SAMPLE_COVERAGE_VALUE: Int\n val
SAMPLE_COVERAGE_INVERT: Int\n val COMPRESSED_TEXTURE_FORMATS: Int\n val
DONT_CARE: Int\n val FASTEST: Int\n val NICEST: Int\n val GENERATE_MIPMAP_HINT: Int\n
val BYTE: Int\n val UNSIGNED_BYTE: Int\n val SHORT: Int\n val UNSIGNED_SHORT: Int\n
val INT: Int\n val UNSIGNED_INT: Int\n val FLOAT: Int\n val DEPTH_COMPONENT: Int\n
val ALPHA: Int\n val RGB: Int\n val RGBA: Int\n val LUMINANCE: Int\n val
LUMINANCE_ALPHA: Int\n val UNSIGNED_SHORT_4_4_4_4: Int\n val

```

UNSIGNED\_SHORT\_5\_5\_5\_1:  
 Int\n val UNSIGNED\_SHORT\_5\_6\_5: Int\n val FRAGMENT\_SHADER: Int\n val  
 VERTEX\_SHADER: Int\n val MAX\_VERTEX\_ATTRIBS: Int\n val  
 MAX\_VERTEX\_UNIFORM\_VECTORS: Int\n val MAX\_VARYING\_VECTORS: Int\n val  
 MAX\_COMBINED\_TEXTURE\_IMAGE\_UNITS: Int\n val MAX\_VERTEX\_TEXTURE\_IMAGE\_UNITS:  
 Int\n val MAX\_TEXTURE\_IMAGE\_UNITS: Int\n val MAX\_FRAGMENT\_UNIFORM\_VECTORS: Int\n  
 val SHADER\_TYPE: Int\n val DELETE\_STATUS: Int\n val LINK\_STATUS: Int\n val  
 VALIDATE\_STATUS: Int\n val ATTACHED\_SHADERS: Int\n val ACTIVE\_UNIFORMS: Int\n val  
 ACTIVE\_ATTRIBUTES: Int\n val SHADING\_LANGUAGE\_VERSION: Int\n val  
 CURRENT\_PROGRAM: Int\n val NEVER: Int\n val LESS: Int\n val EQUAL: Int\n val  
 LEQUAL: Int\n val GREATER: Int\n val NOTEQUAL: Int\n val GEQUAL: Int\n val ALWAYS:  
 Int\n val KEEP: Int\n val REPLACE: Int\n val  
 INCR: Int\n val DECR: Int\n val INVERT: Int\n val INCR\_WRAP: Int\n val DECR\_WRAP: Int\n  
 val VENDOR: Int\n val RENDERER: Int\n val VERSION: Int\n val NEAREST: Int\n val  
 LINEAR: Int\n val NEAREST\_MIPMAP\_NEAREST: Int\n val LINEAR\_MIPMAP\_NEAREST: Int\n  
 val NEAREST\_MIPMAP\_LINEAR: Int\n val LINEAR\_MIPMAP\_LINEAR: Int\n val  
 TEXTURE\_MAG\_FILTER: Int\n val TEXTURE\_MIN\_FILTER: Int\n val TEXTURE\_WRAP\_S: Int\n  
 val TEXTURE\_WRAP\_T: Int\n val TEXTURE\_2D: Int\n val TEXTURE: Int\n val  
 TEXTURE\_CUBE\_MAP: Int\n val TEXTURE\_BINDING\_CUBE\_MAP: Int\n val  
 TEXTURE\_CUBE\_MAP\_POSITIVE\_X: Int\n val TEXTURE\_CUBE\_MAP\_NEGATIVE\_X: Int\n val  
 TEXTURE\_CUBE\_MAP\_POSITIVE\_Y: Int\n val TEXTURE\_CUBE\_MAP\_NEGATIVE\_Y: Int\n val  
 TEXTURE\_CUBE\_MAP\_POSITIVE\_Z: Int\n val TEXTURE\_CUBE\_MAP\_NEGATIVE\_Z: Int\n val  
 MAX\_CUBE\_MAP\_TEXTURE\_SIZE: Int\n  
 val TEXTURE0: Int\n val TEXTURE1: Int\n val TEXTURE2: Int\n val TEXTURE3: Int\n  
 val TEXTURE4: Int\n val TEXTURE5: Int\n val TEXTURE6: Int\n val TEXTURE7: Int\n val  
 TEXTURE8: Int\n val TEXTURE9: Int\n val TEXTURE10: Int\n val TEXTURE11: Int\n val  
 TEXTURE12: Int\n val TEXTURE13: Int\n val TEXTURE14: Int\n val TEXTURE15: Int\n val  
 TEXTURE16: Int\n val TEXTURE17: Int\n val TEXTURE18: Int\n val TEXTURE19: Int\n val  
 TEXTURE20: Int\n val TEXTURE21: Int\n val TEXTURE22: Int\n val TEXTURE23: Int\n val  
 TEXTURE24: Int\n val TEXTURE25: Int\n val TEXTURE26: Int\n val TEXTURE27: Int\n val  
 TEXTURE28: Int\n val TEXTURE29: Int\n val TEXTURE30: Int\n val TEXTURE31: Int\n val  
 ACTIVE\_TEXTURE: Int\n val REPEAT: Int\n val CLAMP\_TO\_EDGE: Int\n val  
 MIRRORED\_REPEAT:  
 Int\n val FLOAT\_VEC2: Int\n val FLOAT\_VEC3: Int\n val FLOAT\_VEC4: Int\n val  
 INT\_VEC2: Int\n val INT\_VEC3: Int\n val INT\_VEC4: Int\n val BOOL: Int\n val BOOL\_VEC2:  
 Int\n val BOOL\_VEC3: Int\n val BOOL\_VEC4: Int\n val FLOAT\_MAT2: Int\n val  
 FLOAT\_MAT3: Int\n val FLOAT\_MAT4: Int\n val SAMPLER\_2D: Int\n val SAMPLER\_CUBE:  
 Int\n val VERTEX\_ATTRIB\_ARRAY\_ENABLED: Int\n val VERTEX\_ATTRIB\_ARRAY\_SIZE: Int\n  
 val VERTEX\_ATTRIB\_ARRAY\_STRIDE: Int\n val VERTEX\_ATTRIB\_ARRAY\_TYPE: Int\n val  
 VERTEX\_ATTRIB\_ARRAY\_NORMALIZED: Int\n val VERTEX\_ATTRIB\_ARRAY\_POINTER: Int\n  
 val VERTEX\_ATTRIB\_ARRAY\_BUFFER\_BINDING: Int\n val  
 IMPLEMENTATION\_COLOR\_READ\_TYPE: Int\n val IMPLEMENTATION\_COLOR\_READ\_FORMAT:  
 Int\n val COMPILE\_STATUS: Int\n val LOW\_FLOAT: Int\n val MEDIUM\_FLOAT: Int\n val  
 HIGH\_FLOAT: Int\n val LOW\_INT: Int\n  
 val MEDIUM\_INT: Int\n val HIGH\_INT: Int\n val FRAMEBUFFER: Int\n val  
 RENDERBUFFER: Int\n val RGBA4: Int\n val RGB5\_A1: Int\n val RGB565: Int\n val  
 DEPTH\_COMPONENT16: Int\n val STENCIL\_INDEX: Int\n val STENCIL\_INDEX8: Int\n val  
 DEPTH\_STENCIL: Int\n val RENDERBUFFER\_WIDTH: Int\n val RENDERBUFFER\_HEIGHT: Int\n





STENCIL\_BACK\_FUNC: Int\n     val STENCIL\_BACK\_FAIL: Int\n     val  
 STENCIL\_BACK\_PASS\_DEPTH\_FAIL: Int\n     val STENCIL\_BACK\_PASS\_DEPTH\_PASS: Int\n     val  
 STENCIL\_BACK\_REF: Int\n     val STENCIL\_BACK\_VALUE\_MASK: Int\n     val  
 STENCIL\_BACK\_WRITEMASK: Int\n     val VIEWPORT: Int\n  
    val SCISSOR\_BOX: Int\n     val COLOR\_CLEAR\_VALUE: Int\n     val COLOR\_WRITEMASK: Int\n  
 val UNPACK\_ALIGNMENT: Int\n     val PACK\_ALIGNMENT: Int\n     val MAX\_TEXTURE\_SIZE: Int\n  
    val MAX\_VIEWPORT\_DIMS: Int\n     val SUBPIXEL\_BITS: Int\n     val RED\_BITS: Int\n     val  
 GREEN\_BITS: Int\n     val BLUE\_BITS: Int\n     val ALPHA\_BITS: Int\n     val DEPTH\_BITS: Int\n     val  
 STENCIL\_BITS: Int\n     val POLYGON\_OFFSET\_UNITS: Int\n     val POLYGON\_OFFSET\_FACTOR: Int\n  
    val TEXTURE\_BINDING\_2D: Int\n     val SAMPLE\_BUFFERS: Int\n     val SAMPLES: Int\n     val  
 SAMPLE\_COVERAGE\_VALUE: Int\n     val SAMPLE\_COVERAGE\_INVERT: Int\n     val  
 COMPRESSED\_TEXTURE\_FORMATS: Int\n     val DONT\_CARE: Int\n     val FASTEST: Int\n     val  
 NICEST: Int\n     val GENERATE\_MIPMAP\_HINT: Int\n     val BYTE: Int\n     val UNSIGNED\_BYTE:  
 Int\n     val SHORT: Int\n     val UNSIGNED\_SHORT: Int\n     val INT: Int\n     val  
 UNSIGNED\_INT: Int\n     val FLOAT: Int\n     val DEPTH\_COMPONENT: Int\n     val ALPHA: Int\n  
 val RGB: Int\n     val RGBA: Int\n     val LUMINANCE: Int\n     val LUMINANCE\_ALPHA: Int\n     val  
 UNSIGNED\_SHORT\_4\_4\_4\_4: Int\n     val UNSIGNED\_SHORT\_5\_5\_5\_1: Int\n     val  
 UNSIGNED\_SHORT\_5\_6\_5: Int\n     val FRAGMENT\_SHADER: Int\n     val VERTEX\_SHADER: Int\n  
 val MAX\_VERTEX\_ATTRIBS: Int\n     val MAX\_VERTEX\_UNIFORM\_VECTORS: Int\n     val  
 MAX\_VARYING\_VECTORS: Int\n     val MAX\_COMBINED\_TEXTURE\_IMAGE\_UNITS: Int\n     val  
 MAX\_VERTEX\_TEXTURE\_IMAGE\_UNITS: Int\n     val MAX\_TEXTURE\_IMAGE\_UNITS: Int\n     val  
 MAX\_FRAGMENT\_UNIFORM\_VECTORS: Int\n     val SHADER\_TYPE: Int\n     val DELETE\_STATUS:  
 Int\n     val LINK\_STATUS: Int\n     val VALIDATE\_STATUS: Int\n     val ATTACHED\_SHADERS: Int\n  
    val ACTIVE\_UNIFORMS: Int\n     val ACTIVE\_ATTRIBUTES: Int\n     val  
 SHADING\_LANGUAGE\_VERSION: Int\n     val CURRENT\_PROGRAM:  
 Int\n     val NEVER: Int\n     val LESS: Int\n     val EQUAL: Int\n     val LEQUAL: Int\n     val  
 GREATER: Int\n     val NOTEQUAL: Int\n     val GEQUAL: Int\n     val ALWAYS: Int\n     val KEEP:  
 Int\n     val REPLACE: Int\n     val INCR: Int\n     val DECR: Int\n     val INVERT: Int\n     val  
 INCR\_WRAP: Int\n     val DECR\_WRAP: Int\n     val VENDOR: Int\n     val RENDERER: Int\n     val  
 VERSION: Int\n     val NEAREST: Int\n     val LINEAR: Int\n     val NEAREST\_MIPMAP\_NEAREST: Int\n  
    val LINEAR\_MIPMAP\_NEAREST: Int\n     val NEAREST\_MIPMAP\_LINEAR: Int\n     val  
 LINEAR\_MIPMAP\_LINEAR: Int\n     val TEXTURE\_MAG\_FILTER: Int\n     val TEXTURE\_MIN\_FILTER:  
 Int\n     val TEXTURE\_WRAP\_S: Int\n     val TEXTURE\_WRAP\_T: Int\n     val TEXTURE\_2D: Int\n  
 val TEXTURE: Int\n     val TEXTURE\_CUBE\_MAP: Int\n     val TEXTURE\_BINDING\_CUBE\_MAP: Int\n  
    val TEXTURE\_CUBE\_MAP\_POSITIVE\_X: Int\n  
    val TEXTURE\_CUBE\_MAP\_NEGATIVE\_X: Int\n     val TEXTURE\_CUBE\_MAP\_POSITIVE\_Y: Int\n  
 val TEXTURE\_CUBE\_MAP\_NEGATIVE\_Y: Int\n     val TEXTURE\_CUBE\_MAP\_POSITIVE\_Z: Int\n     val  
 TEXTURE\_CUBE\_MAP\_NEGATIVE\_Z: Int\n     val MAX\_CUBE\_MAP\_TEXTURE\_SIZE: Int\n     val  
 TEXTURE0: Int\n     val TEXTURE1: Int\n     val TEXTURE2: Int\n     val TEXTURE3: Int\n     val  
 TEXTURE4: Int\n     val TEXTURE5: Int\n     val TEXTURE6: Int\n     val TEXTURE7: Int\n     val  
 TEXTURE8: Int\n     val TEXTURE9: Int\n     val TEXTURE10: Int\n     val TEXTURE11: Int\n     val  
 TEXTURE12: Int\n     val TEXTURE13: Int\n     val TEXTURE14: Int\n     val TEXTURE15: Int\n     val  
 TEXTURE16: Int\n     val TEXTURE17: Int\n     val TEXTURE18: Int\n     val TEXTURE19: Int\n     val  
 TEXTURE20: Int\n     val TEXTURE21: Int\n     val TEXTURE22: Int\n     val TEXTURE23: Int\n     val  
 TEXTURE24: Int\n     val TEXTURE25: Int\n     val  
 TEXTURE26: Int\n     val TEXTURE27: Int\n     val TEXTURE28: Int\n     val TEXTURE29: Int\n     val  
 TEXTURE30: Int\n     val TEXTURE31: Int\n     val ACTIVE\_TEXTURE: Int\n     val REPEAT: Int\n  
 val CLAMP\_TO\_EDGE: Int\n     val MIRRORED\_REPEAT: Int\n     val FLOAT\_VEC2: Int\n     val



```

external interface ArrayBufferView : BufferDataSource {\n  val buffer: ArrayBuffer\n  val byteOffset: Int\n  val
byteLength: Int\n}\n\n/**\n * Exposes the JavaScript
[Int8Array](https://developer.mozilla.org/en/docs/Web/API/Int8Array) to Kotlin\n */\npublic external open class
Int8Array : ArrayBufferView {\n  constructor(length: Int)\n  constructor(array: Int8Array)\n
  constructor(array: Array<Byte>)\n  constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length:
Int = definedExternally)\n  open val length: Int\n  override val buffer: ArrayBuffer\n  override val byteOffset:
Int\n  override val byteLength: Int\n  fun set(array: Int8Array, offset: Int = definedExternally)\n  fun set(array:
Array<Byte>, offset: Int = definedExternally)\n  fun subarray(start: Int, end: Int): Int8Array\n\n  companion
object {\n    val BYTES_PER_ELEMENT: Int\n  }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Int8Array.get(index: Int):
Byte = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Int8Array.set(index: Int,
value: Byte) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript
[Uint8Array](https://developer.mozilla.org/en/docs/Web/API/Uint8Array) to Kotlin\n */\npublic external open class
Uint8Array : ArrayBufferView {\n  constructor(length: Int)\n  constructor(array:
Uint8Array)\n  constructor(array: Array<Byte>)\n  constructor(buffer: ArrayBuffer, byteOffset: Int =
definedExternally, length: Int = definedExternally)\n  open val length: Int\n  override val buffer: ArrayBuffer\n
override val byteOffset: Int\n  override val byteLength: Int\n  fun set(array: Uint8Array, offset: Int =
definedExternally)\n  fun set(array: Array<Byte>, offset: Int = definedExternally)\n  fun subarray(start: Int, end:
Int): Uint8Array\n\n  companion object {\n    val BYTES_PER_ELEMENT: Int\n  }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Uint8Array.get(index: Int):
Byte = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Uint8Array.set(index: Int,
value: Byte) { asDynamic()[index]
= value }\n\n/**\n * Exposes the JavaScript
[Uint8ClampedArray](https://developer.mozilla.org/en/docs/Web/API/Uint8ClampedArray) to Kotlin\n */\npublic
external open class Uint8ClampedArray : ArrayBufferView {\n  constructor(length: Int)\n  constructor(array:
Uint8ClampedArray)\n  constructor(array: Array<Byte>)\n  constructor(buffer: ArrayBuffer, byteOffset: Int =
definedExternally, length: Int = definedExternally)\n  open val length: Int\n  override val buffer: ArrayBuffer\n
override val byteOffset: Int\n  override val byteLength: Int\n  fun set(array: Uint8ClampedArray, offset: Int =
definedExternally)\n  fun set(array: Array<Byte>, offset: Int = definedExternally)\n  fun subarray(start: Int, end:
Int): Uint8ClampedArray\n\n  companion object {\n    val BYTES_PER_ELEMENT: Int\n  }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun
Uint8ClampedArray.get(index: Int): Byte = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun
Uint8ClampedArray.set(index: Int, value: Byte) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript
[Int16Array](https://developer.mozilla.org/en/docs/Web/API/Int16Array) to Kotlin\n */\npublic external open class
Int16Array : ArrayBufferView {\n  constructor(length: Int)\n  constructor(array: Int16Array)\n
  constructor(array: Array<Short>)\n  constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length:
Int = definedExternally)\n  open val length: Int\n  override val buffer: ArrayBuffer\n  override val byteOffset:
Int\n  override val byteLength: Int\n  fun set(array: Int16Array, offset: Int = definedExternally)\n  fun set(array:
Array<Short>, offset: Int = definedExternally)\n  fun subarray(start: Int, end: Int): Int16Array\n\n  companion
object {\n    val BYTES_PER_ELEMENT: Int\n  }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Int16Array.get(index: Int):
Short = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Int16Array.set(index: Int,

```

```

value: Short) { asDynamic()[index] = value } \n\n/** \n * Exposes the JavaScript
[Uint16Array](https://developer.mozilla.org/en/docs/Web/API/Uint16Array) to Kotlin \n * \n\npublic external open
class Uint16Array : ArrayBufferView { \n  constructor(length: Int) \n  constructor(array: Uint16Array) \n
constructor(array: Array<Short>) \n  constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length:
Int = definedExternally) \n  open val length: Int \n  override val buffer: ArrayBuffer \n  override val byteOffset:
Int \n  override val byteLength: Int \n  fun set(array: Uint16Array, offset: Int = definedExternally) \n  fun set(array:
Array<Short>, offset: Int = definedExternally) \n
  fun subarray(start: Int, end: Int): Uint16Array \n\n  companion object { \n    val BYTES_PER_ELEMENT:
Int \n    } \n} \n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER") \n\n@kotlin.internal.InlineOnly \n\npublic inline operator fun Uint16Array.get(index: Int):
Short = asDynamic()[index] \n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER") \n\n@kotlin.internal.InlineOnly \n\npublic inline operator fun Uint16Array.set(index: Int,
value: Short) { asDynamic()[index] = value } \n\n/** \n * Exposes the JavaScript
[Int32Array](https://developer.mozilla.org/en/docs/Web/API/Int32Array) to Kotlin \n * \n\npublic external open class
Int32Array : ArrayBufferView { \n  constructor(length: Int) \n  constructor(array: Int32Array) \n
constructor(array: Array<Int>) \n  constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int
= definedExternally) \n  open val length: Int \n  override val buffer: ArrayBuffer \n  override val byteOffset: Int \n
override
  val byteLength: Int \n  fun set(array: Int32Array, offset: Int = definedExternally) \n  fun set(array: Array<Int>,
offset: Int = definedExternally) \n  fun subarray(start: Int, end: Int): Int32Array \n\n  companion object { \n    val
BYTES_PER_ELEMENT: Int \n    } \n} \n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER") \n\n@kotlin.internal.InlineOnly \n\npublic inline operator fun Int32Array.get(index: Int): Int
= asDynamic()[index] \n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER") \n\n@kotlin.internal.InlineOnly \n\npublic inline operator fun Int32Array.set(index: Int,
value: Int) { asDynamic()[index] = value } \n\n/** \n * Exposes the JavaScript
[Uint32Array](https://developer.mozilla.org/en/docs/Web/API/Uint32Array) to Kotlin \n * \n\npublic external open
class Uint32Array : ArrayBufferView { \n  constructor(length: Int) \n  constructor(array: Uint32Array) \n
constructor(array: Array<Int>) \n  constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int
= definedExternally) \n  open val length: Int \n  override val buffer: ArrayBuffer \n  override val byteOffset: Int \n
override val byteLength: Int \n  fun set(array: Uint32Array, offset: Int = definedExternally) \n  fun set(array:
Array<Int>, offset: Int = definedExternally) \n  fun subarray(start: Int, end: Int): Uint32Array \n\n  companion
object { \n    val BYTES_PER_ELEMENT: Int \n    } \n} \n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER") \n\n@kotlin.internal.InlineOnly \n\npublic inline operator fun Uint32Array.get(index: Int):
Int = asDynamic()[index] \n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER") \n\n@kotlin.internal.InlineOnly \n\npublic inline operator fun Uint32Array.set(index: Int,
value: Int) { asDynamic()[index] = value } \n\n/** \n * Exposes the JavaScript
[Float32Array](https://developer.mozilla.org/en/docs/Web/API/Float32Array) to Kotlin \n * \n\npublic external open
class Float32Array : ArrayBufferView { \n  constructor(length: Int) \n  constructor(array:
Float32Array) \n  constructor(array: Array<Float>) \n  constructor(buffer: ArrayBuffer, byteOffset: Int =
definedExternally, length: Int = definedExternally) \n  open val length: Int \n  override val buffer: ArrayBuffer \n
override val byteOffset: Int \n  override val byteLength: Int \n  fun set(array: Float32Array, offset: Int =
definedExternally) \n  fun set(array: Array<Float>, offset: Int = definedExternally) \n  fun subarray(start: Int, end:
Int): Float32Array \n\n  companion object { \n    val BYTES_PER_ELEMENT: Int \n    } \n} \n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER") \n\n@kotlin.internal.InlineOnly \n\npublic inline operator fun Float32Array.get(index: Int):
Float = asDynamic()[index] \n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER") \n\n@kotlin.internal.InlineOnly \n\npublic inline operator fun Float32Array.set(index: Int,
value: Float) { asDynamic()[index] = value } \n\n/** \n * Exposes the JavaScript

```

```

[Float64Array](https://developer.mozilla.org/en/docs/Web/API/Float64Array)
to Kotlin\n *\/\npublic external open class Float64Array : ArrayBufferView {\n  constructor(length: Int)\n  constructor(array: Float64Array)\n  constructor(array: Array<Double>)\n  constructor(buffer: ArrayBuffer,
byteOffset: Int = definedExternally, length: Int = definedExternally)\n  open val length: Int\n  override val buffer:
ArrayBuffer\n  override val byteOffset: Int\n  override val byteLength: Int\n  fun set(array: Float64Array, offset:
Int = definedExternally)\n  fun set(array: Array<Double>, offset: Int = definedExternally)\n  fun subarray(start:
Int, end: Int): Float64Array\n\n  companion object {\n    val BYTES_PER_ELEMENT: Int\n  }\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun Float64Array.get(index: Int):
Double = asDynamic()[index]\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator
fun Float64Array.set(index: Int, value: Double) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript
[DataView](https://developer.mozilla.org/en/docs/Web/API/DataView) to Kotlin\n *\/\npublic external open class
DataView(buffer: ArrayBuffer, byteOffset: Int = definedExternally, byteLength: Int = definedExternally) :
ArrayBufferView {\n  override val buffer: ArrayBuffer\n  override val byteOffset: Int\n  override val
byteLength: Int\n  fun getInt8(byteOffset: Int): Byte\n  fun getUint8(byteOffset: Int): Byte\n  fun
getInt16(byteOffset: Int, littleEndian: Boolean = definedExternally): Short\n  fun getUint16(byteOffset: Int,
littleEndian: Boolean = definedExternally): Short\n  fun getInt32(byteOffset: Int, littleEndian: Boolean =
definedExternally): Int\n  fun getUint32(byteOffset: Int, littleEndian: Boolean = definedExternally): Int\n  fun
getFloat32(byteOffset: Int, littleEndian: Boolean = definedExternally): Float\n  fun getFloat64(byteOffset: Int,
littleEndian: Boolean = definedExternally): Double\n  fun setInt8(byteOffset: Int, value: Byte)\n  fun
setUint8(byteOffset: Int, value: Byte)\n  fun setInt16(byteOffset: Int, value: Short, littleEndian: Boolean =
definedExternally)\n  fun setUint16(byteOffset: Int, value: Short, littleEndian: Boolean = definedExternally)\n
fun setInt32(byteOffset: Int, value: Int, littleEndian: Boolean = definedExternally)\n  fun setUint32(byteOffset: Int,
value: Int, littleEndian: Boolean = definedExternally)\n  fun setFloat32(byteOffset: Int, value: Float, littleEndian:
Boolean = definedExternally)\n  fun setFloat64(byteOffset: Int, value: Double, littleEndian: Boolean =
definedExternally)\n}\n\npublic external interface BufferDataSource\n\npublic external interface
TexImageSource", /*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n *
Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt
file.\n *\/\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n\n// See github.com/kotlin/dukat for
details\n\npackage org.w3c.dom.clipboard\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport
org.w3c.dom.*\nimport org.w3c.dom.events.*\n\npublic external interface ClipboardEventInit : EventInit {\n  var
clipboardData: DataTransfer? /* = null */\n  get() = definedExternally\n  set(value) =
definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun ClipboardEventInit(clipboardData:
DataTransfer? = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false):
ClipboardEventInit {\n  val o = js("{}")\n  o["clipboardData"] = clipboardData\n  o["bubbles"] = bubbles\n  o["cancelable"] = cancelable\n  o["composed"] = composed\n  return o\n}\n\n/**\n * Exposes the JavaScript
[ClipboardEvent](https://developer.mozilla.org/en/docs/Web/API/ClipboardEvent)
to Kotlin\n *\/\npublic external open class ClipboardEvent(type: String, eventInitDict: ClipboardEventInit =
definedExternally) : Event {\n  open val clipboardData: DataTransfer?\n\n  companion object {\n    val NONE:
Short\n    val CAPTURING_PHASE: Short\n    val AT_TARGET: Short\n    val BUBBLING_PHASE:
Short\n  }\n}\n\n/**\n * Exposes the JavaScript
[Clipboard](https://developer.mozilla.org/en/docs/Web/API/Clipboard) to Kotlin\n *\/\npublic external abstract class
Clipboard : EventTarget {\n  fun read(): Promise<DataTransfer>\n  fun readText(): Promise<String>\n  fun
write(data: DataTransfer): Promise<Unit>\n  fun writeText(data: String): Promise<Unit>\n}\n\npublic external
interface ClipboardPermissionDescriptor {\n  var allowWithoutGesture: Boolean? /* = false */\n  get() =
definedExternally\n  set(value) = definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",

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\ "INVISIBLE_MEMBER" \n @kotlin.internal.InlineOnly \n public inline fun
ClipboardPermissionDescriptor(allowWithoutGesture:
Boolean? = false): ClipboardPermissionDescriptor { \n val o = js("{}") \n o["allowWithoutGesture"] =
allowWithoutGesture \n return o \n }, "/* \n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming
Language contributors. \n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file. \n * \n \n // NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT! \n // See
github.com/kotlin/dukat for details \n \n package org.w3c.dom.css \n \n import kotlin.js.* \n import
org.khronos.webgl.* \n import org.w3c.dom.* \n \n public external abstract class MediaList : ItemArrayLike<String>
{ \n open var mediaText: String \n fun appendMedium(medium: String) \n fun deleteMedium(medium: String) \n
override fun item(index: Int): String? \n } \n \n @Suppress("INVISIBLE_REFERENCE"),
\ "INVISIBLE_MEMBER" \n @kotlin.internal.InlineOnly \n public inline operator fun MediaList.get(index: Int):
String? = asDynamic()[index] \n \n /** \n
* Exposes the JavaScript [StyleSheet](https://developer.mozilla.org/en/docs/Web/API/StyleSheet) to Kotlin \n
* \n public external abstract class StyleSheet { \n open val type: String \n open val href: String? \n open val
ownerNode: UnionElementOrProcessingInstruction? \n open val parentStyleSheet: StyleSheet? \n open val title:
String? \n open val media: MediaList \n open var disabled: Boolean \n } \n \n /** \n * Exposes the JavaScript
[CSSStyleSheet](https://developer.mozilla.org/en/docs/Web/API/CSSStyleSheet) to Kotlin \n * \n public external
abstract class CSSStyleSheet : StyleSheet { \n open val ownerRule: CSSRule? \n open val cssRules:
CSSRuleList \n fun insertRule(rule: String, index: Int): Int \n fun deleteRule(index: Int) \n } \n \n /** \n * Exposes the
JavaScript [StyleSheetList](https://developer.mozilla.org/en/docs/Web/API/StyleSheetList) to Kotlin \n * \n public
external abstract class StyleSheetList : ItemArrayLike<StyleSheet> { \n override fun item(index:
Int): StyleSheet? \n } \n \n @Suppress("INVISIBLE_REFERENCE"),
\ "INVISIBLE_MEMBER" \n @kotlin.internal.InlineOnly \n public inline operator fun StyleSheetList.get(index: Int):
StyleSheet? = asDynamic()[index] \n \n /** \n * Exposes the JavaScript
[LinkStyle](https://developer.mozilla.org/en/docs/Web/API/LinkStyle) to Kotlin \n * \n public external interface
LinkStyle { \n val sheet: StyleSheet? \n get() = definedExternally \n } \n \n /** \n * Exposes the JavaScript
[CSSRuleList](https://developer.mozilla.org/en/docs/Web/API/CSSRuleList) to Kotlin \n * \n public external abstract
class CSSRuleList : ItemArrayLike<CSSRule> { \n override fun item(index: Int):
CSSRule? \n } \n \n @Suppress("INVISIBLE_REFERENCE"),
\ "INVISIBLE_MEMBER" \n @kotlin.internal.InlineOnly \n public inline operator fun CSSRuleList.get(index: Int):
CSSRule? = asDynamic()[index] \n \n /** \n * Exposes the JavaScript
[CSSRule](https://developer.mozilla.org/en/docs/Web/API/CSSRule) to Kotlin \n * \n public external abstract class
CSSRule
{ \n open val type: Short \n open var cssText: String \n open val parentRule: CSSRule? \n open val
parentStyleSheet: CSSStyleSheet? \n \n companion object { \n val STYLE_RULE: Short \n val
CHARSET_RULE: Short \n val IMPORT_RULE: Short \n val MEDIA_RULE: Short \n val
FONT_FACE_RULE: Short \n val PAGE_RULE: Short \n val MARGIN_RULE: Short \n val
NAMESPACE_RULE: Short \n } \n } \n \n /** \n * Exposes the JavaScript
[CSSStyleRule](https://developer.mozilla.org/en/docs/Web/API/CSSStyleRule) to Kotlin \n * \n public external
abstract class CSSStyleRule : CSSRule { \n open var selectorText: String \n open val style:
CSSStyleDeclaration \n \n companion object { \n val STYLE_RULE: Short \n val CHARSET_RULE:
Short \n val IMPORT_RULE: Short \n val MEDIA_RULE: Short \n val FONT_FACE_RULE: Short \n
val PAGE_RULE: Short \n val MARGIN_RULE: Short \n val NAMESPACE_RULE: Short \n
} \n } \n \n public external
abstract class CSSImportRule : CSSRule { \n open val href: String \n open val media: MediaList \n open val
styleSheet: CSSStyleSheet \n \n companion object { \n val STYLE_RULE: Short \n val CHARSET_RULE:
Short \n val IMPORT_RULE: Short \n val MEDIA_RULE: Short \n val FONT_FACE_RULE: Short \n
val PAGE_RULE: Short \n val MARGIN_RULE: Short \n val NAMESPACE_RULE: Short \n
} \n }

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}\n}\n\n/**\n * Exposes the JavaScript
[CSSGroupingRule](https://developer.mozilla.org/en/docs/Web/API/CSSGroupingRule) to Kotlin\n *\npublic
external abstract class CSSGroupingRule : CSSRule {\n  open val cssRules: CSSRuleList\n  fun insertRule(rule:
String, index: Int): Int\n  fun deleteRule(index: Int)\n\n  companion object {\n    val STYLE_RULE: Short\n
val CHARSET_RULE: Short\n    val IMPORT_RULE: Short\n    val MEDIA_RULE: Short\n    val
FONT_FACE_RULE: Short\n    val PAGE_RULE: Short\n    val MARGIN_RULE: Short\n
    val NAMESPACE_RULE: Short\n  }\n}\n\n/**\n * Exposes the JavaScript
[CSSMediaRule](https://developer.mozilla.org/en/docs/Web/API/CSSMediaRule) to Kotlin\n *\npublic external
abstract class CSSMediaRule : CSSGroupingRule {\n  open val media: MediaList\n\n  companion object {\n
val STYLE_RULE: Short\n    val CHARSET_RULE: Short\n    val IMPORT_RULE: Short\n    val
MEDIA_RULE: Short\n    val FONT_FACE_RULE: Short\n    val PAGE_RULE: Short\n    val
MARGIN_RULE: Short\n    val NAMESPACE_RULE: Short\n  }\n}\n\n/**\n * Exposes the JavaScript
[CSSPageRule](https://developer.mozilla.org/en/docs/Web/API/CSSPageRule) to Kotlin\n *\npublic external
abstract class CSSPageRule : CSSGroupingRule {\n  open var selectorText: String\n  open val style:
CSSStyleDeclaration\n\n  companion object {\n    val STYLE_RULE: Short\n    val CHARSET_RULE:
Short\n    val IMPORT_RULE: Short\n    val MEDIA_RULE: Short\n    val FONT_FACE_RULE:
Short\n    val PAGE_RULE: Short\n    val MARGIN_RULE: Short\n    val NAMESPACE_RULE: Short\n
  }\n}\n\npublic external abstract class CSSMarginRule : CSSRule {\n  open val name: String\n  open val style:
CSSStyleDeclaration\n\n  companion object {\n    val STYLE_RULE: Short\n    val CHARSET_RULE:
Short\n    val IMPORT_RULE: Short\n    val MEDIA_RULE: Short\n    val FONT_FACE_RULE: Short\n
    val PAGE_RULE: Short\n    val MARGIN_RULE: Short\n    val NAMESPACE_RULE: Short\n
  }\n}\n\n/**\n * Exposes the JavaScript
[CSSNamespaceRule](https://developer.mozilla.org/en/docs/Web/API/CSSNamespaceRule) to Kotlin\n *\npublic
external abstract class CSSNamespaceRule : CSSRule {\n  open val namespaceURI: String\n  open val prefix:
String\n\n  companion object {\n    val STYLE_RULE: Short\n    val CHARSET_RULE: Short\n    val
IMPORT_RULE: Short\n    val MEDIA_RULE: Short\n    val FONT_FACE_RULE: Short\n    val
PAGE_RULE:
Short\n    val MARGIN_RULE: Short\n    val NAMESPACE_RULE: Short\n  }\n}\n\n/**\n * Exposes the
JavaScript [CSSStyleDeclaration](https://developer.mozilla.org/en/docs/Web/API/CSSStyleDeclaration) to Kotlin\n
*\npublic external abstract class CSSStyleDeclaration : ItemArrayLike<String> {\n  open var cssText: String\n
open val parentRule: CSSRule?\n  open var cssFloat: String\n  open var alignContent: String\n  open var
alignItems: String\n  open var alignSelf: String\n  open var animation: String\n  open var animationDelay:
String\n  open var animationDirection: String\n  open var animationDuration: String\n  open var
animationFillMode: String\n  open var animationIterationCount: String\n  open var animationName: String\n
open var animationPlayState: String\n  open var animationTimingFunction: String\n  open var backfaceVisibility:
String\n  open var background: String\n  open var backgroundAttachment: String\n  open var backgroundClip:
String\n  open var backgroundColor: String\n  open var backgroundImage: String\n  open var
backgroundOrigin: String\n  open var backgroundPosition: String\n  open var backgroundRepeat: String\n  open
var backgroundSize: String\n  open var border: String\n  open var borderBottom: String\n  open var
borderBottomColor: String\n  open var borderBottomLeftRadius: String\n  open var borderBottomRightRadius:
String\n  open var borderBottomStyle: String\n  open var borderBottomWidth: String\n  open var
borderCollapse: String\n  open var borderColor: String\n  open var borderImage: String\n  open var
borderImageOutset: String\n  open var borderImageRepeat: String\n  open var borderImageSlice: String\n  open
var borderImageSource: String\n  open var borderImageWidth: String\n  open var borderLeft: String\n  open var
borderLeftColor: String\n  open var borderLeftStyle: String\n  open var borderLeftWidth: String\n  open var
borderRadius:
String\n  open var borderRight: String\n  open var borderRightColor: String\n  open var borderRightStyle:
String\n  open var borderRightWidth: String\n  open var borderSpacing: String\n  open var borderStyle: String\n
}

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open var borderTop: String\n open var borderTopColor: String\n open var borderTopLeftRadius: String\n open var borderTopRightRadius: String\n open var borderTopStyle: String\n open var borderTopWidth: String\n open var borderWidth: String\n open var bottom: String\n open var boxDecorationBreak: String\n open var boxShadow: String\n open var boxSizing: String\n open var breakAfter: String\n open var breakBefore: String\n open var breakInside: String\n open var captionSide: String\n open var clear: String\n open var clip: String\n open var color: String\n open var columnCount: String\n open var columnFill: String\n open var columnGap: String\n open var columnRule: String\n open var columnRuleColor: String\n open var columnRuleStyle: String\n open var columnRuleWidth: String\n open var columnSpan: String\n open var columnWidth: String\n open var columns: String\n open var content: String\n open var counterIncrement: String\n open var counterReset: String\n open var cursor: String\n open var direction: String\n open var display: String\n open var emptyCells: String\n open var filter: String\n open var flex: String\n open var flexBasis: String\n open var flexDirection: String\n open var flexFlow: String\n open var flexGrow: String\n open var flexShrink: String\n open var flexWrap: String\n open var font: String\n open var fontFamily: String\n open var fontFeatureSettings: String\n open var fontKerning: String\n open var fontLanguageOverride: String\n open var fontSize: String\n open var fontSizeAdjust: String\n open var fontStretch: String\n open var fontStyle: String\n open var fontSynthesis: String\n open var fontVariant: String\n open var fontVariantAlternates: String\n open var fontVariantCaps: String\n open var fontVariantEastAsian: String\n open var fontVariantLigatures: String\n open var fontVariantNumeric: String\n open var fontVariantPosition: String\n open var fontWeight: String\n open var hangingPunctuation: String\n open var height: String\n open var hyphens: String\n open var imageOrientation: String\n open var imageRendering: String\n open var imageResolution: String\n open var imeMode: String\n open var justifyContent: String\n open var left: String\n open var letterSpacing: String\n open var lineBreak: String\n open var lineHeight: String\n open var listStyle: String\n open var listStyleImage: String\n open var listStylePosition: String\n open var listStyleType: String\n open var margin: String\n open var marginBottom: String\n open var marginLeft: String\n open var marginRight: String\n open var marginTop: String\n open var mark: String\n open var markAfter: String\n open var markBefore: String\n open var marks: String\n open var marqueeDirection: String\n open var marqueePlayCount: String\n open var marqueeSpeed: String\n open var marqueeStyle: String\n open var mask: String\n open var maskType: String\n open var maxHeight: String\n open var maxWidth: String\n open var minHeight: String\n open var minWidth: String\n open var navDown: String\n open var navIndex: String\n open var navLeft: String\n open var navRight: String\n open var navUp: String\n open var objectFit: String\n open var objectPosition: String\n open var opacity: String\n open var order: String\n open var orphans: String\n open var outline: String\n open var outlineColor: String\n open var outlineOffset: String\n open var outlineStyle: String\n open var outlineWidth: String\n open var overflowWrap: String\n open var overflowX: String\n open var overflowY: String\n open var padding: String\n open var paddingBottom: String\n open var paddingLeft: String\n open var paddingRight: String\n open var paddingTop: String\n open var pageBreakAfter: String\n open var pageBreakBefore: String\n open var pageBreakInside: String\n open var perspective: String\n open var perspectiveOrigin: String\n open var phonemes: String\n open var position: String\n open var quotes: String\n open var resize: String\n open var rest: String\n open var restAfter: String\n open var restBefore: String\n open var right: String\n open var tabSize: String\n open var tableLayout: String\n open var textAlign: String\n open var textAlignLast: String\n open var textCombineUpright: String\n open var textDecoration: String\n open var textDecorationColor: String\n open var textDecorationLine: String\n open var textDecorationStyle: String\n open var textIndent: String\n open var textJustify: String\n open var textOrientation: String\n open var textOverflow: String\n open var textShadow: String\n open var textTransform: String\n open var textUnderlinePosition: String\n open var top: String\n open var transform: String\n open var transformOrigin: String\n open var transformStyle: String\n open var transition: String\n open var transitionDelay: String\n open var transitionDuration: String\n open var transitionProperty: String\n open var transitionTimingFunction:



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String\n open var unicodeBidi: String\n open var verticalAlign: String\n open var visibility: String\n open
var voiceBalance: String\n open var voiceDuration: String\n open var voicePitch: String\n open var
voicePitchRange: String\n open var voiceRate: String\n open var voiceStress: String\n open var voiceVolume:
String\n open var whiteSpace: String\n open var widows: String\n
open var width: String\n open var wordBreak: String\n open var wordSpacing: String\n open var wordWrap:
String\n open var writingMode: String\n open var zIndex: String\n open var _dashed_attribute: String\n open
var _camel_cased_attribute: String\n open var _webkit_cased_attribute: String\n fun getPropertyValue(property:
String): String\n fun getPropertyPriority(property: String): String\n fun setProperty(property: String, value:
String, priority: String = definedExternally)\n fun setPropertyValue(property: String, value: String)\n fun
setPropertyPriority(property: String, priority: String)\n fun removeProperty(property: String): String\n override
fun item(index: Int): String\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun
CSSStyleDeclaration.get(index: Int): String? = asDynamic()[index]\n\npublic external interface
ElementCSSInlineStyle {\n val style: CSSStyleDeclaration\n}\n\n/**\n
* Exposes the JavaScript [CSS](https://developer.mozilla.org/en/docs/Web/API/CSS) to Kotlin\n */\npublic
external abstract class CSS {\n companion object {\n fun escape(ident: String): String\n }\n}\n\npublic
external interface UnionElementOrProcessingInstruction, \"/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n\n//
See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.encryptedmedia\n\nimport kotlin.js.*\nimport
org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\n\n/**\n * Exposes the JavaScript
[MediaKeySystemConfiguration](https://developer.mozilla.org/en/docs/Web/API/MediaKeySystemConfiguration)
to Kotlin\n */\n\npublic external interface MediaKeySystemConfiguration {\n var label: String? /* = \"\" */\n
get() = definedExternally\n set(value) = definedExternally\n var initDataTypes: Array<String>? /* =
arrayOf() */\n get() = definedExternally\n set(value) = definedExternally\n var audioCapabilities:
Array<MediaKeySystemMediaCapability>? /* = arrayOf() */\n get() = definedExternally\n set(value) =
definedExternally\n var videoCapabilities: Array<MediaKeySystemMediaCapability>? /* = arrayOf() */\n
get() = definedExternally\n set(value) = definedExternally\n var distinctiveIdentifier:
MediaKeysRequirement? /* = MediaKeysRequirement.OPTIONAL */\n get() = definedExternally\n
set(value) = definedExternally\n var persistentState: MediaKeysRequirement? /* =
MediaKeysRequirement.OPTIONAL */\n get() = definedExternally\n set(value) = definedExternally\n
var sessionTypes: Array<String>?\n get() = definedExternally\n set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaKeySystemConfiguration(label:
String? = \"\", initDataTypes: Array<String>? = arrayOf(), audioCapabilities:
Array<MediaKeySystemMediaCapability>? = arrayOf(), videoCapabilities:
Array<MediaKeySystemMediaCapability>? = arrayOf(), distinctiveIdentifier: MediaKeysRequirement? =
MediaKeysRequirement.OPTIONAL, persistentState: MediaKeysRequirement? =
MediaKeysRequirement.OPTIONAL, sessionTypes: Array<String>? = undefined): MediaKeySystemConfiguration
{\n val o = js(\"({})\")\n o[\"label\"] = label\n o[\"initDataTypes\"] = initDataTypes\n
o[\"audioCapabilities\"] = audioCapabilities\n o[\"videoCapabilities\"] = videoCapabilities\n
o[\"distinctiveIdentifier\"] = distinctiveIdentifier\n o[\"persistentState\"] = persistentState\n o[\"sessionTypes\"]
= sessionTypes\n return o\n}\n\npublic external interface MediaKeySystemMediaCapability {\n var
contentType: String? /* = \"\" */\n
get() = definedExternally\n set(value) = definedExternally\n var robustness: String? /* = \"\" */\n
get() =
definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun
MediaKeySystemMediaCapability(contentType: String? = \"\", robustness: String? = \"\"):

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MediaKeySystemMediaCapability {\n  val o = js("{}")\n  o["contentType"] = contentType\n  o["robustness"] = robustness\n  return o}\n\n/**\n * Exposes the JavaScript
[MediaKeySystemAccess](https://developer.mozilla.org/en/docs/Web/API/MediaKeySystemAccess) to Kotlin\n
*/\npublic external abstract class MediaKeySystemAccess {\n  open val keySystem: String\n  fun
getConfiguration(): MediaKeySystemConfiguration\n  fun createMediaKeys(): Promise<MediaKeys>\n}\n\n/**\n
* Exposes the JavaScript [MediaKeys](https://developer.mozilla.org/en/docs/Web/API/MediaKeys) to Kotlin\n
*/\npublic external
  abstract class MediaKeys {\n  fun createSession(sessionType: MediaKeySessionType = definedExternally):
MediaKeySession\n  fun setServerCertificate(serverCertificate: dynamic): Promise<Boolean>\n}\n\n/**\n
* Exposes the JavaScript [MediaKeySession](https://developer.mozilla.org/en/docs/Web/API/MediaKeySession) to
Kotlin\n
*/\npublic external abstract class MediaKeySession : EventTarget {\n  open val sessionId: String\n  open
val expiration: Double\n  open val closed: Promise<Unit>\n  open val keyStatuses: MediaKeyStatusMap\n  open
var onkeystatuschange: ((Event) -> dynamic)?\n  open var onmessage: ((MessageEvent) -> dynamic)?\n  fun
generateRequest(initDataType: String, initData: dynamic): Promise<Unit>\n  fun load(sessionId: String):
Promise<Boolean>\n  fun update(response: dynamic): Promise<Unit>\n  fun close(): Promise<Unit>\n  fun
remove(): Promise<Unit>\n}\n\n/**\n
* Exposes the JavaScript
[MediaKeyStatusMap](https://developer.mozilla.org/en/docs/Web/API/MediaKeyStatusMap)
to Kotlin\n
*/\npublic external abstract class MediaKeyStatusMap {\n  open val size: Int\n  fun has(keyId:
dynamic): Boolean\n  fun get(keyId: dynamic): Any?\n}\n\n/**\n
* Exposes the JavaScript
[MediaKeyMessageEvent](https://developer.mozilla.org/en/docs/Web/API/MediaKeyMessageEvent) to Kotlin\n
*/\npublic external open class MediaKeyMessageEvent(type: String, eventInitDict: MediaKeyMessageEventInit) :
Event {\n  open val messageType: MediaKeyMessageType\n  open val message: ArrayBuffer\n\n  companion
object {\n    val NONE: Short\n    val CAPTURING_PHASE: Short\n    val AT_TARGET: Short\n    val
BUBBLING_PHASE: Short\n  }\n}\n\npublic external interface MediaKeyMessageEventInit : EventInit {\n  var
messageType: MediaKeyMessageType?\n  var message:
ArrayBuffer?\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun
MediaKeyMessageEventInit(messageType: MediaKeyMessageType?, message:
ArrayBuffer?, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false):
MediaKeyMessageEventInit {\n  val o = js("{}")\n  o["messageType"] = messageType\n  o["message"] =
message\n  o["bubbles"] = bubbles\n  o["cancelable"] = cancelable\n  o["composed"] = composed\n  return
o}\n\npublic external open class MediaEncryptedEvent(type: String, eventInitDict: MediaEncryptedEventInit =
definedExternally) : Event {\n  open val initDataType: String\n  open val initData: ArrayBuffer?\n\n  companion
object {\n    val NONE: Short\n    val CAPTURING_PHASE: Short\n    val AT_TARGET: Short\n    val
BUBBLING_PHASE: Short\n  }\n}\n\npublic external interface MediaEncryptedEventInit : EventInit {\n  var
initDataType: String? /* = "" */\n  get() = definedExternally\n  set(value) = definedExternally\n  var
initData: ArrayBuffer? /* = null */\n  get() = definedExternally\n  set(value) =
definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun
MediaEncryptedEventInit(initDataType: String? = "", initData: ArrayBuffer? = null, bubbles: Boolean? = false,
cancelable: Boolean? = false, composed: Boolean? = false): MediaEncryptedEventInit {\n  val o = js("{}")\n
o["initDataType"] = initDataType\n  o["initData"] = initData\n  o["bubbles"] = bubbles\n  o["cancelable"]
= cancelable\n  o["composed"] = composed\n  return o}\n\n/* please, don't implement this interface!
*/\n@JsName("null")\n@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")\npublic external
interface MediaKeysRequirement {\n  companion object\n}\n\npublic inline val
MediaKeysRequirement.Companion.REQUIRED: MediaKeysRequirement get() =
"required".asDynamic().unsafeCast<MediaKeysRequirement>()\n\npublic inline val
MediaKeysRequirement.Companion.OPTIONAL: MediaKeysRequirement get() =

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\"optional\".asDynamic().unsafeCast<MediaKeysRequirement>()\n\npublic
inline val MediaKeysRequirement.Companion.NOT_ALLOWED: MediaKeysRequirement get() = \"not-
allowed\".asDynamic().unsafeCast<MediaKeysRequirement>()\n\n/* please, don't implement this interface!
*\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic external
interface MediaKeySessionType {\n    companion object\n}\n\npublic inline val
MediaKeySessionType.Companion.TEMPORARY: MediaKeySessionType get() =
\"temporary\".asDynamic().unsafeCast<MediaKeySessionType>()\n\npublic inline val
MediaKeySessionType.Companion.PERSISTENT_LICENSE: MediaKeySessionType get() = \"persistent-
license\".asDynamic().unsafeCast<MediaKeySessionType>()\n\n/* please, don't implement this interface!
*\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic external
interface MediaKeyStatus {\n    companion object\n}\n\npublic inline val MediaKeyStatus.Companion.USABLE:
MediaKeyStatus get() = \"usable\".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic
inline val MediaKeyStatus.Companion.EXPIRED: MediaKeyStatus get() =
\"expired\".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val
MediaKeyStatus.Companion.RELEASED: MediaKeyStatus get() =
\"released\".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val
MediaKeyStatus.Companion.OUTPUT_RESTRICTED: MediaKeyStatus get() = \"output-
restricted\".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val
MediaKeyStatus.Companion.OUTPUT_DOWNSCALED: MediaKeyStatus get() = \"output-
downscaled\".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val
MediaKeyStatus.Companion.STATUS_PENDING: MediaKeyStatus get() = \"status-
pending\".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val
MediaKeyStatus.Companion.INTERNAL_ERROR: MediaKeyStatus get() = \"internal-
error\".asDynamic().unsafeCast<MediaKeyStatus>()\n\n/* please, don't implement this interface!
*\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic
external interface MediaKeyMessageType {\n    companion object\n}\n\npublic inline val
MediaKeyMessageType.Companion.LICENSE_REQUEST: MediaKeyMessageType get() = \"license-
request\".asDynamic().unsafeCast<MediaKeyMessageType>()\n\npublic inline val
MediaKeyMessageType.Companion.LICENSE_RENEWAL: MediaKeyMessageType get() = \"license-
renewal\".asDynamic().unsafeCast<MediaKeyMessageType>()\n\npublic inline val
MediaKeyMessageType.Companion.LICENSE_RELEASE: MediaKeyMessageType get() = \"license-
release\".asDynamic().unsafeCast<MediaKeyMessageType>()\n\npublic inline val
MediaKeyMessageType.Companion.INDIVIDUALIZATION_REQUEST: MediaKeyMessageType get() =
\"individualization-request\".asDynamic().unsafeCast<MediaKeyMessageType>())\n\n/*\n * Copyright 2010-2021
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n *\n\n// NOTE: THIS FILE IS AUTO-
GENERATED, DO NOT EDIT!\n\n//
See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.events\n\nimport kotlin.js.*\nimport
org.khronos.webgl.*\nimport org.w3c.dom.*\n\n/**\n * Exposes the JavaScript
[UIEvent](https://developer.mozilla.org/en/docs/Web/API/UIEvent) to Kotlin\n\n *\n\npublic external open class
UIEvent(type: String, eventInitDict: UIEventInit = definedExternally) : Event {\n    open val view: Window?\n\n    open val detail: Int\n\n    companion object {\n        val NONE: Short\n        val CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n        val BUBBLING_PHASE: Short\n    }\n\n\npublic external interface UIEventInit :
EventInit {\n    var view: Window? /* = null */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var detail: Int? /* = 0 */\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\n\npublic inline fun UIEventInit(view: Window? =

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null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false):
UIEventInit {\n val o = js("{}")\n o["view"] = view\n o["detail"] = detail\n o["bubbles"] = bubbles\n
o["cancelable"] = cancelable\n o["composed"] = composed\n return o\n}\n\n/**\n * Exposes the JavaScript
[FocusEvent](https://developer.mozilla.org/en/docs/Web/API/FocusEvent) to Kotlin\n */\npublic external open class
FocusEvent(type: String, eventInitDict: FocusEventInit = definedExternally) : UIEvent {\n open val relatedTarget:
EventTarget?\n\n companion object {\n val NONE: Short\n val CAPTURING_PHASE: Short\n val
AT_TARGET: Short\n val BUBBLING_PHASE: Short\n }\n}\n\npublic external interface FocusEventInit :
UIEventInit {\n var relatedTarget: EventTarget? /* = null */\n get() = definedExternally\n set(value) =
definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic
inline fun FocusEventInit(relatedTarget: EventTarget? = null, view: Window? = null, detail: Int? = 0, bubbles:
Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): FocusEventInit {\n val o =
js("{}")\n o["relatedTarget"] = relatedTarget\n o["view"] = view\n o["detail"] = detail\n
o["bubbles"] = bubbles\n o["cancelable"] = cancelable\n o["composed"] = composed\n return
o\n}\n\n/**\n * Exposes the JavaScript [MouseEvent](https://developer.mozilla.org/en/docs/Web/API/MouseEvent)
to Kotlin\n */\npublic external open class MouseEvent(type: String, eventInitDict: MouseEventInit =
definedExternally) : UIEvent, UnionElementOrMouseEvent {\n open val screenX: Int\n open val screenY: Int\n
open val clientX: Int\n open val clientY: Int\n open val ctrlKey: Boolean\n open val shiftKey: Boolean\n
open val altKey: Boolean\n open val metaKey: Boolean\n open val button: Short\n
open val buttons: Short\n open val relatedTarget: EventTarget?\n open val region: String?\n open val pageX:
Double\n open val pageY: Double\n open val x: Double\n open val y: Double\n open val offsetX: Double\n
open val offsetY: Double\n fun getModifierState(keyArg: String): Boolean\n\n companion object {\n val
NONE: Short\n val CAPTURING_PHASE: Short\n val AT_TARGET: Short\n val
BUBBLING_PHASE: Short\n }\n}\n\npublic external interface MouseEventInit : EventModifierInit {\n var
screenX: Int? /* = 0 */\n get() = definedExternally\n set(value) = definedExternally\n var screenY: Int? /*
= 0 */\n get() = definedExternally\n set(value) = definedExternally\n var clientX: Int? /* = 0 */\n
get() = definedExternally\n set(value) = definedExternally\n var clientY: Int? /* = 0 */\n get() =
definedExternally\n set(value) = definedExternally\n var button: Short?
/* = 0 */\n get() = definedExternally\n set(value) = definedExternally\n var buttons: Short? /* = 0 */\n
get() = definedExternally\n set(value) = definedExternally\n var relatedTarget: EventTarget? /* = null */\n
get() = definedExternally\n set(value) = definedExternally\n var region: String? /* = null */\n get() =
definedExternally\n set(value) = definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun MouseEventInit(screenX: Int? = 0,
screenY: Int? = 0, clientX: Int? = 0, clientY: Int? = 0, button: Short? = 0, buttons: Short? = 0, relatedTarget:
EventTarget? = null, region: String? = null, ctrlKey: Boolean? = false, shiftKey: Boolean? = false, altKey: Boolean?
= false, metaKey: Boolean? = false, modifierAltGraph: Boolean? = false, modifierCapsLock: Boolean? = false,
modifierFn: Boolean? = false, modifierFnLock: Boolean? = false, modifierHyper:
Boolean? = false, modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? = false, modifierSuper:
Boolean? = false, modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false, view: Window? =
null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false):
MouseEventInit {\n val o = js("{}")\n o["screenX"] = screenX\n o["screenY"] = screenY\n
o["clientX"] = clientX\n o["clientY"] = clientY\n o["button"] = button\n o["buttons"] = buttons\n
o["relatedTarget"] = relatedTarget\n o["region"] = region\n o["ctrlKey"] = ctrlKey\n o["shiftKey"] =
shiftKey\n o["altKey"] = altKey\n o["metaKey"] = metaKey\n o["modifierAltGraph"] =
modifierAltGraph\n o["modifierCapsLock"] = modifierCapsLock\n o["modifierFn"] = modifierFn\n
o["modifierFnLock"] = modifierFnLock\n o["modifierHyper"] = modifierHyper\n o["modifierNumLock"] =
modifierNumLock\n

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    o["modifierScrollLock"] = modifierScrollLock\n    o["modifierSuper"] = modifierSuper\n
o["modifierSymbol"] = modifierSymbol\n    o["modifierSymbolLock"] = modifierSymbolLock\n    o["view"] =
view\n    o["detail"] = detail\n    o["bubbles"] = bubbles\n    o["cancelable"] = cancelable\n    o["composed"] =
composed\n    return o\n}\n\npublic external interface EventModifierInit : UIEventInit {\n    var ctrlKey: Boolean?
/* = false */\n        get() = definedExternally\n        set(value) = definedExternally\n    var shiftKey: Boolean? /* =
false */\n        get() = definedExternally\n        set(value) = definedExternally\n    var altKey: Boolean? /* = false
*/\n        get() = definedExternally\n        set(value) = definedExternally\n    var metaKey: Boolean? /* = false */\n
        get() = definedExternally\n        set(value) = definedExternally\n    var modifierAltGraph: Boolean? /* = false */\n
        get() = definedExternally\n        set(value) = definedExternally\n
    var modifierCapsLock: Boolean? /* = false */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var modifierFn: Boolean? /* = false */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var modifierFnLock: Boolean? /* = false */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var modifierHyper: Boolean? /* = false */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var modifierNumLock: Boolean? /* = false */\n        get() = definedExternally\n
set(value) = definedExternally\n    var modifierScrollLock: Boolean? /* = false */\n        get() = definedExternally\n
set(value) = definedExternally\n    var modifierSuper: Boolean? /* = false */\n        get() = definedExternally\n
set(value) = definedExternally\n    var modifierSymbol: Boolean? /* = false */\n        get() = definedExternally\n
set(value) = definedExternally\n    var
    modifierSymbolLock: Boolean? /* = false */\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun EventModifierInit(ctrlKey: Boolean? =
false, shiftKey: Boolean? = false, altKey: Boolean? = false, metaKey: Boolean? = false, modifierAltGraph:
Boolean? = false, modifierCapsLock: Boolean? = false, modifierFn: Boolean? = false, modifierFnLock: Boolean? =
false, modifierHyper: Boolean? = false, modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? = false,
modifierSuper: Boolean? = false, modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false, view:
Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? =
false): EventModifierInit {\n    val o = js("{}")\n    o["ctrlKey"] = ctrlKey\n    o["shiftKey"] = shiftKey\n
o["altKey"] = altKey\n    o["metaKey"] = metaKey\n    o["modifierAltGraph"]
= modifierAltGraph\n    o["modifierCapsLock"] = modifierCapsLock\n    o["modifierFn"] = modifierFn\n
o["modifierFnLock"] = modifierFnLock\n    o["modifierHyper"] = modifierHyper\n    o["modifierNumLock"] =
modifierNumLock\n    o["modifierScrollLock"] = modifierScrollLock\n    o["modifierSuper"] = modifierSuper\n
o["modifierSymbol"] = modifierSymbol\n    o["modifierSymbolLock"] = modifierSymbolLock\n    o["view"] =
view\n    o["detail"] = detail\n    o["bubbles"] = bubbles\n    o["cancelable"] = cancelable\n    o["composed"] =
composed\n    return o\n}\n\n/**\n * Exposes the JavaScript
[WheelEvent](https://developer.mozilla.org/en/docs/Web/API/WheelEvent) to Kotlin\n */\n\npublic external open
class WheelEvent(type: String, eventInitDict: WheelEventInit = definedExternally) : MouseEvent {\n    open val
deltaX: Double\n    open val deltaY: Double\n    open val deltaZ: Double\n    open val deltaMode: Int\n\n    companion object {\n
        val DOM_DELTA_PIXEL: Int\n        val DOM_DELTA_LINE: Int\n        val DOM_DELTA_PAGE: Int\n
        val NONE: Short\n        val CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n        val
        BUBBLING_PHASE: Short\n    }\n\n    public external interface WheelEventInit : MouseEventInit {\n        var
deltaX: Double? /* = 0.0 */\n            get() = definedExternally\n            set(value) = definedExternally\n        var deltaY:
Double? /* = 0.0 */\n            get() = definedExternally\n            set(value) = definedExternally\n        var deltaZ: Double? /*
= 0.0 */\n            get() = definedExternally\n            set(value) = definedExternally\n        var deltaMode: Int? /* = 0 */\n
            get() = definedExternally\n            set(value) = definedExternally\n    }\n\n    @Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n\n    @kotlin.internal.InlineOnly\n\n    public inline fun WheelEventInit(deltaX: Double? = 0.0,
deltaY: Double? = 0.0, deltaZ: Double? = 0.0, deltaMode: Int? = 0, screenX: Int? = 0, screenY: Int? = 0, clientX:

```





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EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom\n\nimport kotlin.js.*\nimport
org.khronos.webgl.*\nimport org.w3c.dom.clipboard.*\nimport org.w3c.dom.css.*\nimport
org.w3c.dom.encryptedmedia.*\nimport org.w3c.dom.events.*\nimport org.w3c.dom.mediacapture.*\nimport
org.w3c.dom.mediasource.*\nimport org.w3c.dom.pointerevents.*\nimport org.w3c.dom.svg.*\nimport
org.w3c.fetch.*\nimport org.w3c.files.*\nimport org.w3c.performance.*\nimport org.w3c.workers.*\nimport
org.w3c.xhr.*\n\npublic external abstract class HTMLAllCollection {\n    open val length: Int\n    fun
item(nameOrIndex: String = definedExternally): UnionElementOrHTMLCollection?\n    fun namedItem(name:
String): UnionElementOrHTMLCollection?\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun
HTMLAllCollection.get(index: Int): Element? =
asDynamic()[index]\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun
HTMLAllCollection.get(name: String): UnionElementOrHTMLCollection? = asDynamic()[name]\n\n/**\n *
Exposes the JavaScript
[HTMLFormControlsCollection](https://developer.mozilla.org/en/docs/Web/API/HTMLFormControlsCollection)
to
Kotlin\n */\npublic external abstract class HTMLFormControlsCollection : HTMLCollection\n\n/**\n * Exposes
the JavaScript [RadioNodeList](https://developer.mozilla.org/en/docs/Web/API/RadioNodeList) to Kotlin\n
*/\npublic external abstract class RadioNodeList : NodeList, UnionElementOrRadioNodeList {\n    open var value:
String\n}\n\n/**\n * Exposes the JavaScript
[HTMLOptionsCollection](https://developer.mozilla.org/en/docs/Web/API/HTMLOptionsCollection) to Kotlin\n
*/\npublic external abstract class HTMLOptionsCollection : HTMLCollection {\n    override var length: Int\n    open
var selectedIndex: Int\n    fun add(element: UnionHTMLOptGroupElementOrHTMLOptionElement, before:
dynamic = definedExternally)\n    fun remove(index: Int)\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun
HTMLOptionsCollection.set(index: Int, option: HTMLOptionElement?) { asDynamic()[index] = option }\n\n/**\n *
Exposes the JavaScript [HTMLInputElement](https://developer.mozilla.org/en/docs/Web/API/HTMLInputElement)
to Kotlin\n */\npublic external abstract class HTMLInputElement : Element, GlobalEventHandlers,
DocumentAndElementEventHandlers, ElementContentEditable, ElementCSSInlineStyle {\n    open var title:
String\n    open var lang: String\n    open var translate: Boolean\n    open var dir: String\n    open val dataset:
DOMStringMap\n    open var hidden: Boolean\n    open var tabIndex: Int\n    open var accessKey: String\n    open
val accessKeyLabel: String\n    open var draggable: Boolean\n    open val dropzone: DOMTokenList\n    open var
contextMenu: HTMLMenuElement?\n    open var spellcheck: Boolean\n    open var innerText: String\n    open val
offsetParent: Element?\n    open val offsetTop: Int\n    open val offsetLeft: Int\n    open val offsetWidth: Int\n    open
val offsetHeight: Int\n    fun click()\n    fun focus()\n    fun blur()\n    fun forceSpellCheck()\n\n    companion object
{\n        val ELEMENT_NODE: Short\n
        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n
        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
        PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
        DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
        DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
        DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
        DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[HTMLUnknownElement](https://developer.mozilla.org/en/docs/Web/API/HTMLUnknownElement) to Kotlin\n
*/\npublic external abstract class HTMLUnknownElement : HTMLInputElement {\n    companion object {\n        val
ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE:

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Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val
ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n    val
PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[DOMStringMap](https://developer.mozilla.org/en/docs/Web/API/DOMStringMap) to Kotlin\n *\npublic external
abstract class DOMStringMap\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun DOMStringMap.get(name:
String): String? = asDynamic()[name]\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun DOMStringMap.set(name:
String, value: String) { asDynamic()[name] = value }\n\n/**\n * Exposes the JavaScript
[HTMLHtmlElement](https://developer.mozilla.org/en/docs/Web/API/HTMLHtmlElement) to Kotlin\n *\npublic
external abstract class HTMLHtmlElement : HTMLElement {\n    open var version: String\n\n    companion object
{\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n
        val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val
ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE:
Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val
DOCUMENT_POSITION_PRECEDING: Short\n        val DOCUMENT_POSITION_FOLLOWING: Short\n
        val DOCUMENT_POSITION_CONTAINS: Short\n        val DOCUMENT_POSITION_CONTAINED_BY:
Short\n        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes
the JavaScript [HTMLHeadElement](https://developer.mozilla.org/en/docs/Web/API/HTMLHeadElement) to
Kotlin\n *\npublic external abstract class HTMLHeadElement : HTMLElement {\n    companion object {\n        val
ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val
CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE:
Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING:
Short\n        val DOCUMENT_POSITION_FOLLOWING: Short\n        val
DOCUMENT_POSITION_CONTAINS: Short\n        val DOCUMENT_POSITION_CONTAINED_BY: Short\n
        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the
JavaScript [HTMLTitleElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTitleElement) to Kotlin\n
*\npublic external abstract class HTMLTitleElement : HTMLElement {\n    open var text: String\n\n    companion
object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE:
Short\n        val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val
ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE:
Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING:
Short\n        val DOCUMENT_POSITION_FOLLOWING: Short\n        val
DOCUMENT_POSITION_CONTAINS: Short\n        val DOCUMENT_POSITION_CONTAINED_BY: Short\n
        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n}\n\n/**\n * Exposes the

```



DOCUMENT\_FRAGMENT\_NODE: Short\n val NOTATION\_NODE: Short\n val

DOCUMENT\_POSITION\_DISCONNECTED: Short\n val DOCUMENT\_POSITION\_PRECEDING: Short\n val DOCUMENT\_POSITION\_FOLLOWING: Short\n val DOCUMENT\_POSITION\_CONTAINS: Short\n val DOCUMENT\_POSITION\_CONTAINED\_BY: Short\n val

DOCUMENT\_POSITION\_IMPLEMENTATION\_SPECIFIC: Short\n }n}\n\n/\*\*\n \* Exposes the JavaScript [HTMLBodyElement](https://developer.mozilla.org/en/docs/Web/API/HTMLBodyElement) to Kotlin\n \*\npublic external abstract class HTMLBodyElement : HTMLInputElement, WindowEventHandlers {\n open var text: String\n open var link: String\n open var vLink: String\n open var aLink: String\n open var bgColor: String\n open var background: String\n\n companion object {\n val ELEMENT\_NODE: Short\n val ATTRIBUTE\_NODE: Short\n val TEXT\_NODE: Short\n val CDATA\_SECTION\_NODE: Short\n val ENTITY\_REFERENCE\_NODE: Short\n val ENTITY\_NODE: Short\n val

PROCESSING\_INSTRUCTION\_NODE: Short\n val COMMENT\_NODE: Short\n val

DOCUMENT\_NODE: Short\n val DOCUMENT\_TYPE\_NODE: Short\n val

DOCUMENT\_FRAGMENT\_NODE: Short\n val NOTATION\_NODE: Short\n val

DOCUMENT\_POSITION\_DISCONNECTED: Short\n val DOCUMENT\_POSITION\_PRECEDING: Short\n val DOCUMENT\_POSITION\_FOLLOWING: Short\n val DOCUMENT\_POSITION\_CONTAINS: Short\n val DOCUMENT\_POSITION\_CONTAINED\_BY:

Short\n val DOCUMENT\_POSITION\_IMPLEMENTATION\_SPECIFIC: Short\n }n}\n\n/\*\*\n \* Exposes the JavaScript [HTMLHeadingElement](https://developer.mozilla.org/en/docs/Web/API/HTMLHeadingElement) to Kotlin\n \*\npublic external abstract class HTMLHeadingElement : HTMLInputElement {\n open var align: String\n\n companion object {\n val ELEMENT\_NODE: Short\n val ATTRIBUTE\_NODE: Short\n val TEXT\_NODE: Short\n val CDATA\_SECTION\_NODE: Short\n val ENTITY\_REFERENCE\_NODE: Short\n val ENTITY\_NODE: Short\n val PROCESSING\_INSTRUCTION\_NODE: Short\n val COMMENT\_NODE: Short\n val DOCUMENT\_NODE: Short\n val DOCUMENT\_TYPE\_NODE: Short\n val DOCUMENT\_FRAGMENT\_NODE: Short\n val NOTATION\_NODE: Short\n val

DOCUMENT\_POSITION\_DISCONNECTED: Short\n val DOCUMENT\_POSITION\_PRECEDING: Short\n val DOCUMENT\_POSITION\_FOLLOWING: Short\n val DOCUMENT\_POSITION\_CONTAINS: Short\n val DOCUMENT\_POSITION\_CONTAINED\_BY: Short\n val

DOCUMENT\_POSITION\_IMPLEMENTATION\_SPECIFIC: Short\n }n}\n\n/\*\*\n \* Exposes the JavaScript [HTMLParagraphElement](https://developer.mozilla.org/en/docs/Web/API/HTMLParagraphElement) to Kotlin\n \*\npublic external abstract class HTMLParagraphElement : HTMLInputElement {\n open var align: String\n\n companion object {\n val ELEMENT\_NODE: Short\n val ATTRIBUTE\_NODE: Short\n val TEXT\_NODE: Short\n val CDATA\_SECTION\_NODE: Short\n val ENTITY\_REFERENCE\_NODE: Short\n val ENTITY\_NODE: Short\n val PROCESSING\_INSTRUCTION\_NODE: Short\n val COMMENT\_NODE: Short\n val DOCUMENT\_NODE: Short\n val DOCUMENT\_TYPE\_NODE: Short\n val DOCUMENT\_FRAGMENT\_NODE: Short\n val NOTATION\_NODE: Short\n val

DOCUMENT\_POSITION\_DISCONNECTED: Short\n val DOCUMENT\_POSITION\_PRECEDING: Short\n val DOCUMENT\_POSITION\_FOLLOWING: Short\n val DOCUMENT\_POSITION\_CONTAINS: Short\n val DOCUMENT\_POSITION\_CONTAINED\_BY: Short\n val

DOCUMENT\_POSITION\_IMPLEMENTATION\_SPECIFIC: Short\n }n}\n\n/\*\*\n \* Exposes the JavaScript [HTMLHRElement](https://developer.mozilla.org/en/docs/Web/API/HTMLHRElement) to Kotlin\n \*\npublic external abstract class HTMLHRElement : HTMLInputElement {\n open var align: String\n open var color: String\n open var noShade: Boolean\n open var size: String\n open var width: String\n\n companion object {\n val ELEMENT\_NODE: Short\n val ATTRIBUTE\_NODE: Short\n val TEXT\_NODE: Short\n val CDATA\_SECTION\_NODE: Short\n val ENTITY\_REFERENCE\_NODE: Short\n val ENTITY\_NODE: Short\n val PROCESSING\_INSTRUCTION\_NODE: Short\n val COMMENT\_NODE: Short\n val DOCUMENT\_NODE: Short\n val DOCUMENT\_TYPE\_NODE: Short\n val DOCUMENT\_FRAGMENT\_NODE: Short\n val NOTATION\_NODE: Short\n val

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DOCUMENT_POSITION_DISCONNECTED: Short\n
    val DOCUMENT_POSITION_PRECEDING: Short\n    val DOCUMENT_POSITION_FOLLOWING:
Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n    val
DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    } \n } \n \n /** \n * Exposes the JavaScript
[HTMLPreElement](https://developer.mozilla.org/en/docs/Web/API/HTMLPreElement) to Kotlin \n * \n public
external abstract class HTMLPreElement : HTMLElement { \n    open var width: Int \n \n    companion object { \n
val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val
CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE:
Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n
    val DOCUMENT_POSITION_PRECEDING: Short\n    val DOCUMENT_POSITION_FOLLOWING:
Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n    val
DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    } \n } \n \n /** \n * Exposes the JavaScript
[HTMLQuoteElement](https://developer.mozilla.org/en/docs/Web/API/HTMLQuoteElement) to Kotlin \n * \n public
external abstract class HTMLQuoteElement : HTMLElement { \n    open var cite: String \n \n    companion object { \n
val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val
CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE:
Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED:
Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n    val
DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    } \n } \n \n /** \n * Exposes the JavaScript
[HTMLLOListElement](https://developer.mozilla.org/en/docs/Web/API/HTMLLOListElement) to Kotlin \n * \n public
external abstract class HTMLLOListElement : HTMLElement { \n    open var reversed: Boolean \n    open var start:
Int \n    open var type: String \n    open var compact: Boolean \n \n    companion object { \n    val
ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val
CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE:
Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE:
Short\n    val NOTATION_NODE: Short\n    val DOCUMENT_POSITION_DISCONNECTED: Short\n
val DOCUMENT_POSITION_PRECEDING: Short\n    val DOCUMENT_POSITION_FOLLOWING: Short\n
val DOCUMENT_POSITION_CONTAINS: Short\n    val DOCUMENT_POSITION_CONTAINED_BY:
Short\n    val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    } \n } \n \n /** \n * Exposes
the JavaScript [HTMLULListElement](https://developer.mozilla.org/en/docs/Web/API/HTMLULListElement) to
Kotlin \n * \n public external abstract class HTMLULListElement : HTMLElement { \n    open var compact: Boolean \n
    open var type: String \n \n    companion object { \n    val ELEMENT_NODE: Short\n    val
ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val
ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n    val
PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE:

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Short\n    val DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[HTMLLIElement](https://developer.mozilla.org/en/docs/Web/API/HTMLLIElement) to Kotlin\n\n*\npublic
external abstract class HTMLLIElement : HTMLIElement {\n    open var value: Int\n    open var type: String\n\n
companion object {\n    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val
TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE:
Short\n    val ENTITY_NODE: Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val
COMMENT_NODE: Short\n    val DOCUMENT_NODE: Short\n
        val DOCUMENT_TYPE_NODE: Short\n    val DOCUMENT_FRAGMENT_NODE: Short\n    val
NOTATION_NODE: Short\n    val DOCUMENT_POSITION_DISCONNECTED: Short\n    val
DOCUMENT_POSITION_PRECEDING: Short\n    val DOCUMENT_POSITION_FOLLOWING: Short\n
val DOCUMENT_POSITION_CONTAINS: Short\n    val DOCUMENT_POSITION_CONTAINED_BY:
Short\n    val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes
the JavaScript [HTMLDListElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDListElement) to
Kotlin\n\n*\npublic external abstract class HTMLDListElement : HTMLIElement {\n    open var compact:
Boolean\n\n    companion object {\n    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n
val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE:
Short\n    val ENTITY_NODE: Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val
COMMENT_NODE: Short\n    val DOCUMENT_NODE:
Short\n    val DOCUMENT_TYPE_NODE: Short\n    val DOCUMENT_FRAGMENT_NODE: Short\n
val NOTATION_NODE: Short\n    val DOCUMENT_POSITION_DISCONNECTED: Short\n    val
DOCUMENT_POSITION_PRECEDING: Short\n    val DOCUMENT_POSITION_FOLLOWING: Short\n
val DOCUMENT_POSITION_CONTAINS: Short\n    val DOCUMENT_POSITION_CONTAINED_BY:
Short\n    val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes
the JavaScript [HTMLDivElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDivElement) to Kotlin\n\n
*\npublic external abstract class HTMLDivElement : HTMLIElement {\n    open var align: String\n\n    companion
object {\n    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE:
Short\n    val CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val
ENTITY_NODE: Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE:
Short\n    val DOCUMENT_NODE:
Short\n    val DOCUMENT_TYPE_NODE: Short\n    val DOCUMENT_FRAGMENT_NODE: Short\n
val NOTATION_NODE: Short\n    val DOCUMENT_POSITION_DISCONNECTED: Short\n    val
DOCUMENT_POSITION_PRECEDING: Short\n    val DOCUMENT_POSITION_FOLLOWING: Short\n
val DOCUMENT_POSITION_CONTAINS: Short\n    val DOCUMENT_POSITION_CONTAINED_BY:
Short\n    val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes
the JavaScript [HTMLAnchorElement](https://developer.mozilla.org/en/docs/Web/API/HTMLAnchorElement) to
Kotlin\n\n*\npublic external abstract class HTMLAnchorElement : HTMLIElement, HTMLHyperlinkElementUtils
{\n    open var target: String\n    open var download: String\n    open var ping: String\n    open var rel: String\n
open val relList: DOMTokenList\n    open var hreflang: String\n    open var type: String\n    open var text: String\n
open var referrerPolicy: String\n    open var coords: String\n    open var charset:
String\n    open var name: String\n    open var rev: String\n    open var shape: String\n\n    companion object {\n
val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val
CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE:
Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val

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DOCUMENT\_FRAGMENT\_NODE: Short\n val NOTATION\_NODE: Short\n val

DOCUMENT\_POSITION\_DISCONNECTED: Short\n val DOCUMENT\_POSITION\_PRECEDING: Short\n val DOCUMENT\_POSITION\_FOLLOWING: Short\n val DOCUMENT\_POSITION\_CONTAINS: Short\n val DOCUMENT\_POSITION\_CONTAINED\_BY: Short\n val

DOCUMENT\_POSITION\_IMPLEMENTATION\_SPECIFIC: Short\n }n}\n\n/\*\*\n \* Exposes the JavaScript [HTMLDataElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDataElement) to Kotlin\n \*\npublic external abstract class HTMLDataElement : HTMLElement {\n open var value: String\n companion object {\n val ELEMENT\_NODE: Short\n val ATTRIBUTE\_NODE: Short\n val TEXT\_NODE: Short\n val CDATA\_SECTION\_NODE: Short\n val ENTITY\_REFERENCE\_NODE: Short\n val ENTITY\_NODE: Short\n val PROCESSING\_INSTRUCTION\_NODE: Short\n val COMMENT\_NODE: Short\n val DOCUMENT\_NODE: Short\n val DOCUMENT\_TYPE\_NODE: Short\n val DOCUMENT\_FRAGMENT\_NODE: Short\n val NOTATION\_NODE: Short\n val DOCUMENT\_POSITION\_DISCONNECTED: Short\n val DOCUMENT\_POSITION\_PRECEDING: Short\n val DOCUMENT\_POSITION\_FOLLOWING: Short\n val DOCUMENT\_POSITION\_CONTAINS: Short\n val DOCUMENT\_POSITION\_CONTAINED\_BY: Short\n val DOCUMENT\_POSITION\_IMPLEMENTATION\_SPECIFIC: Short\n }n}\n\n/\*\*\n \* Exposes the JavaScript [HTMLTimeElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTimeElement) to Kotlin\n \*\npublic external abstract class HTMLTimeElement : HTMLElement {\n open var dateTime: String\n companion object {\n val ELEMENT\_NODE: Short\n val ATTRIBUTE\_NODE: Short\n val TEXT\_NODE: Short\n val CDATA\_SECTION\_NODE: Short\n val ENTITY\_REFERENCE\_NODE: Short\n val ENTITY\_NODE: Short\n val PROCESSING\_INSTRUCTION\_NODE: Short\n val COMMENT\_NODE: Short\n val DOCUMENT\_NODE: Short\n val DOCUMENT\_TYPE\_NODE: Short\n val DOCUMENT\_FRAGMENT\_NODE: Short\n val NOTATION\_NODE: Short\n val DOCUMENT\_POSITION\_DISCONNECTED: Short\n val DOCUMENT\_POSITION\_PRECEDING: Short\n val DOCUMENT\_POSITION\_FOLLOWING: Short\n val DOCUMENT\_POSITION\_CONTAINS: Short\n val DOCUMENT\_POSITION\_CONTAINED\_BY: Short\n val DOCUMENT\_POSITION\_IMPLEMENTATION\_SPECIFIC: Short\n }n}\n\n/\*\*\n \* Exposes the JavaScript [HTMLSpanElement](https://developer.mozilla.org/en/docs/Web/API/HTMLSpanElement) to Kotlin\n \*\npublic external abstract class HTMLSpanElement : HTMLElement {\n companion object {\n val ELEMENT\_NODE: Short\n val ATTRIBUTE\_NODE: Short\n val TEXT\_NODE: Short\n val CDATA\_SECTION\_NODE: Short\n val ENTITY\_REFERENCE\_NODE: Short\n val ENTITY\_NODE: Short\n val PROCESSING\_INSTRUCTION\_NODE: Short\n val COMMENT\_NODE: Short\n val DOCUMENT\_NODE: Short\n val DOCUMENT\_TYPE\_NODE: Short\n val DOCUMENT\_FRAGMENT\_NODE: Short\n val NOTATION\_NODE: Short\n val DOCUMENT\_POSITION\_DISCONNECTED: Short\n val DOCUMENT\_POSITION\_PRECEDING: Short\n val DOCUMENT\_POSITION\_FOLLOWING: Short\n val DOCUMENT\_POSITION\_CONTAINS: Short\n val DOCUMENT\_POSITION\_CONTAINED\_BY: Short\n val DOCUMENT\_POSITION\_IMPLEMENTATION\_SPECIFIC: Short\n }n}\n\n/\*\*\n \* Exposes the JavaScript [HTMLBRElement](https://developer.mozilla.org/en/docs/Web/API/HTMLBRElement) to Kotlin\n \*\npublic external abstract class HTMLBRElement : HTMLElement {\n open var clear: String\n companion object {\n val ELEMENT\_NODE: Short\n val ATTRIBUTE\_NODE: Short\n val TEXT\_NODE: Short\n val CDATA\_SECTION\_NODE: Short\n val ENTITY\_REFERENCE\_NODE: Short\n val ENTITY\_NODE: Short\n val PROCESSING\_INSTRUCTION\_NODE: Short\n val COMMENT\_NODE: Short\n val DOCUMENT\_NODE: Short\n val DOCUMENT\_TYPE\_NODE: Short\n val DOCUMENT\_FRAGMENT\_NODE: Short\n val NOTATION\_NODE: Short\n val DOCUMENT\_POSITION\_DISCONNECTED: Short\n val DOCUMENT\_POSITION\_PRECEDING: Short\n val DOCUMENT\_POSITION\_FOLLOWING: Short\n val DOCUMENT\_POSITION\_CONTAINS: Short\n val DOCUMENT\_POSITION\_CONTAINED\_BY: Short\n val

DOCUMENT\_POSITION\_IMPLEMENTATION\_SPECIFIC: Short\n }\n}\n\n/\*\*\n \* Exposes the JavaScript [HTMLHyperlinkElementUtils](https://developer.mozilla.org/en/docs/Web/API/HTMLHyperlinkElementUtils) to Kotlin\n \*\npublic external interface HTMLHyperlinkElementUtils {\n var href: String\n val origin: String\n var protocol: String\n var username: String\n var password: String\n var host: String\n var hostname: String\n var port: String\n var pathname: String\n var search: String\n var hash: String\n}\n}\n\n/\*\*\n \* Exposes the JavaScript [HTMLModElement](https://developer.mozilla.org/en/docs/Web/API/HTMLModElement) to Kotlin\n \*\npublic external abstract class HTMLModElement : HTMLElement {\n open var cite: String\n open var dateTime: String\n\n companion object {\n val ELEMENT\_NODE: Short\n val ATTRIBUTE\_NODE: Short\n val TEXT\_NODE: Short\n val CDATA\_SECTION\_NODE: Short\n val ENTITY\_REFERENCE\_NODE: Short\n val ENTITY\_NODE: Short\n val PROCESSING\_INSTRUCTION\_NODE: Short\n val COMMENT\_NODE: Short\n val DOCUMENT\_NODE: Short\n val DOCUMENT\_TYPE\_NODE: Short\n val DOCUMENT\_FRAGMENT\_NODE: Short\n val NOTATION\_NODE: Short\n val DOCUMENT\_POSITION\_DISCONNECTED: Short\n val DOCUMENT\_POSITION\_PRECEDING: Short\n val DOCUMENT\_POSITION\_FOLLOWING: Short\n val DOCUMENT\_POSITION\_CONTAINS: Short\n val DOCUMENT\_POSITION\_CONTAINED\_BY: Short\n val DOCUMENT\_POSITION\_IMPLEMENTATION\_SPECIFIC: Short\n }\n}\n\n/\*\*\n \* Exposes the JavaScript [HTMLPictureElement](https://developer.mozilla.org/en/docs/Web/API/HTMLPictureElement) to Kotlin\n \*\npublic external abstract class HTMLPictureElement : HTMLImageElement {\n companion object {\n val ELEMENT\_NODE: Short\n val ATTRIBUTE\_NODE: Short\n val TEXT\_NODE: Short\n val CDATA\_SECTION\_NODE: Short\n val ENTITY\_REFERENCE\_NODE: Short\n val ENTITY\_NODE: Short\n val PROCESSING\_INSTRUCTION\_NODE: Short\n val COMMENT\_NODE: Short\n val DOCUMENT\_NODE: Short\n val DOCUMENT\_TYPE\_NODE: Short\n val DOCUMENT\_FRAGMENT\_NODE: Short\n val NOTATION\_NODE: Short\n val DOCUMENT\_POSITION\_DISCONNECTED: Short\n val DOCUMENT\_POSITION\_PRECEDING: Short\n val DOCUMENT\_POSITION\_FOLLOWING: Short\n val DOCUMENT\_POSITION\_CONTAINS: Short\n val DOCUMENT\_POSITION\_CONTAINED\_BY: Short\n val DOCUMENT\_POSITION\_IMPLEMENTATION\_SPECIFIC: Short\n }\n}\n\n/\*\*\n \* Exposes the JavaScript [HTMLSourceElement](https://developer.mozilla.org/en/docs/Web/API/HTMLSourceElement) to Kotlin\n \*\npublic external abstract class HTMLSourceElement : HTMLImageElement {\n open var src: String\n open var type: String\n open var srcset: String\n open var sizes: String\n open var media: String\n\n companion object {\n val ELEMENT\_NODE: Short\n val ATTRIBUTE\_NODE: Short\n val TEXT\_NODE: Short\n val CDATA\_SECTION\_NODE: Short\n val ENTITY\_REFERENCE\_NODE: Short\n val ENTITY\_NODE: Short\n val PROCESSING\_INSTRUCTION\_NODE: Short\n val COMMENT\_NODE: Short\n val DOCUMENT\_NODE: Short\n val DOCUMENT\_TYPE\_NODE: Short\n val DOCUMENT\_FRAGMENT\_NODE: Short\n val NOTATION\_NODE: Short\n val DOCUMENT\_POSITION\_DISCONNECTED: Short\n val DOCUMENT\_POSITION\_PRECEDING: Short\n val DOCUMENT\_POSITION\_FOLLOWING: Short\n val DOCUMENT\_POSITION\_CONTAINS: Short\n val DOCUMENT\_POSITION\_CONTAINED\_BY: Short\n val DOCUMENT\_POSITION\_IMPLEMENTATION\_SPECIFIC: Short\n }\n}\n\n/\*\*\n \* Exposes the JavaScript [HTMLImageElement](https://developer.mozilla.org/en/docs/Web/API/HTMLImageElement) to Kotlin\n \*\npublic external abstract class HTMLImageElement : HTMLImageElement, HTMLImageElement, HTMLImageElement, HTMLImageElement, HTMLImageElement {\n open var alt: String\n open var src: String\n open var srcset: String\n open var sizes: String\n open var crossOrigin: String?\n open var useMap: String\n open var isMap: Boolean\n open var width: Int\n open var height: Int\n open val naturalWidth: Int\n open val naturalHeight: Int\n open val complete: Boolean\n open val currentSrc: String\n open var referrerPolicy: String\n open var name: String\n open var lowsrc: String\n open var align: String\n open var

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hspace: Int\n open var vspace: Int\n open var longDesc: String\n open var border: String\n open val x: Int\n
open val y: Int\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE:
Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val
ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val
PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val
DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val
DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val
DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n
val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY:
Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes
the JavaScript [HTMLIFrameElement](https://developer.mozilla.org/en/docs/Web/API/HTMLIFrameElement) to
Kotlin\n */\npublic external abstract class HTMLIFrameElement : HTMLInputElement {\n open var src: String\n
open var srcdoc: String\n open var name: String\n open val sandbox: DOMTokenList\n open var
allowFullscreen: Boolean\n open var allowUserMedia: Boolean\n open var width: String\n open var height:
String\n open var referrerPolicy: String\n open val contentDocument: Document?\n open val contentWindow:
Window?\n open var align: String\n open var scrolling: String\n open var frameBorder: String\n open var
longDesc: String\n open var marginHeight: String\n open var marginWidth: String\n fun getSVGDocument():
Document?\n\n companion object {\n val
ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val
CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE:
Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val
DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val
DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val
DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript
[HTMLEmbedElement](https://developer.mozilla.org/en/docs/Web/API/HTMLEmbedElement) to Kotlin\n
*/\npublic external abstract class HTMLEmbedElement : HTMLInputElement {\n open var src: String\n open var
type: String\n
open var width: String\n open var height: String\n open var align: String\n open var name: String\n fun
getSVGDocument(): Document?\n\n companion object {\n val ELEMENT_NODE: Short\n val
ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val
ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val
PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val
DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val
DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val
DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript
[HTMLObjectElement](https://developer.mozilla.org/en/docs/Web/API/HTMLObjectElement)
to Kotlin\n */\npublic external abstract class HTMLObjectElement : HTMLInputElement {\n open var data: String\n
open var type: String\n open var typeMustMatch: Boolean\n open var name: String\n open var useMap:
String\n open val form: HTMLFormElement?\n open var width: String\n open var height: String\n open val
contentDocument: Document?\n open val contentWindow: Window?\n open val willValidate: Boolean\n open
val validity: ValidityState\n open val validationMessage: String\n open var align: String\n open var archive:

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String\n open var code: String\n open var declare: Boolean\n open var hspace: Int\n open var standby:
String\n open var vspace: Int\n open var codeBase: String\n open var codeType: String\n open var border:
String\n fun getSVGDocument(): Document?\n fun checkValidity(): Boolean\n fun reportValidity():
Boolean\n fun setCustomValidity(error: String)\n\n
    companion object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val
TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE:
Short\n        val ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val
COMMENT_NODE: Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n
        val DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n\n/**\n * Exposes the JavaScript
[HTMLParamElement](https://developer.mozilla.org/en/docs/Web/API/HTMLParamElement) to Kotlin\n
*\npublic external abstract class HTMLParamElement : HTMLElement {\n    open var name:
String\n    open var value: String\n    open var type: String\n    open var valueType: String\n\n    companion object
{\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n
        val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val
ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE:
Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n\n/**\n * Exposes the JavaScript
[HTMLVideoElement](https://developer.mozilla.org/en/docs/Web/API/HTMLVideoElement)
to Kotlin\n * \npublic external abstract class HTMLVideoElement : HTMLMediaElement, CanvasImageSource,
TexImageSource {\n    open var width: Int\n    open var height: Int\n    open val videoWidth: Int\n    open val
videoHeight: Int\n    open var poster: String\n    open var playsInline: Boolean\n\n    companion object {\n        val
NETWORK_EMPTY: Short\n        val NETWORK_IDLE: Short\n        val NETWORK_LOADING: Short\n
        val NETWORK_NO_SOURCE: Short\n        val HAVE_NOTHING: Short\n        val HAVE_METADATA:
Short\n        val HAVE_CURRENT_DATA: Short\n        val HAVE_FUTURE_DATA: Short\n        val
HAVE_ENOUGH_DATA: Short\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n
        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE:
Short\n        val ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val
COMMENT_NODE: Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE:
Short\n        val DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n\n/**\n * Exposes the JavaScript
[HTMLAudioElement](https://developer.mozilla.org/en/docs/Web/API/HTMLAudioElement) to Kotlin\n
*\npublic external abstract class HTMLAudioElement : HTMLMediaElement {\n    companion object {\n        val
NETWORK_EMPTY: Short\n        val NETWORK_IDLE: Short\n        val NETWORK_LOADING: Short\n
        val NETWORK_NO_SOURCE: Short\n        val HAVE_NOTHING: Short\n        val HAVE_METADATA:
Short\n        val HAVE_CURRENT_DATA: Short\n        val HAVE_FUTURE_DATA: Short\n        val
HAVE_ENOUGH_DATA: Short\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE:

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Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val
ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n    val
PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }n}\n\n/**\n * Exposes the JavaScript
[HTMLTrackElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTrackElement) to Kotlin\n */\npublic
external abstract class HTMLTrackElement : HTMLMElement {\n    open var kind: String\n    open var src: String\n
    open var srclang: String\n    open var
label: String\n    open var default: Boolean\n    open val readyState: Short\n    open val track: TextTrack\n\n
companion object {\n    val NONE: Short\n    val LOADING: Short\n    val LOADED: Short\n    val
ERROR: Short\n    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val
TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE:
Short\n    val ENTITY_NODE: Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val
COMMENT_NODE: Short\n    val DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n
    val DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }n}\n\n/**\n
* Exposes the JavaScript
[HTMLMediaElement](https://developer.mozilla.org/en/docs/Web/API/HTMLMediaElement) to Kotlin\n
*/\npublic external abstract class HTMLMediaElement : HTMLMElement {\n    open val error: MediaError?\n    open
var src: String\n    open var srcObject: MediaProvider?\n    open val currentSrc: String\n    open var crossOrigin:
String?\n    open val networkState: Short\n    open var preload: String\n    open val buffered: TimeRanges\n    open
val readyState: Short\n    open val seeking: Boolean\n    open var currentTime: Double\n    open val duration:
Double\n    open val paused: Boolean\n    open var defaultPlaybackRate: Double\n    open var playbackRate:
Double\n    open val played: TimeRanges\n    open val seekable: TimeRanges\n    open val ended: Boolean\n    open
var autoplay: Boolean\n    open var loop: Boolean\n    open var controls: Boolean\n    open var volume: Double\n
    open var muted: Boolean\n    open var defaultMuted: Boolean\n    open val audioTracks:
AudioTrackList\n    open val videoTracks: VideoTrackList\n    open val textTracks: TextTrackList\n    open val
mediaKeys: MediaKeys?\n    open var onencrypted: ((Event) -> dynamic)?\n    open var onwaitingforkey: ((Event) -
> dynamic)?\n    fun load()\n    fun canPlayType(type: String): CanPlayTypeResult\n    fun fastSeek(time: Double)\n
    fun getStartDate(): dynamic\n    fun play(): Promise<Unit>\n    fun pause()\n    fun addTextTrack(kind:
TextTrackKind, label: String = definedExternally, language: String = definedExternally): TextTrack\n    fun
setMediaKeys(mediaKeys: MediaKeys?): Promise<Unit>\n\n    companion object {\n    val
NETWORK_EMPTY: Short\n    val NETWORK_IDLE: Short\n    val NETWORK_LOADING: Short\n
val NETWORK_NO_SOURCE: Short\n    val HAVE_NOTHING: Short\n    val HAVE_METADATA:
Short\n    val HAVE_CURRENT_DATA: Short\n    val HAVE_FUTURE_DATA: Short\n    val
HAVE_ENOUGH_DATA: Short\n    val ELEMENT_NODE: Short\n
val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n
val ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n    val
PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val

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DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    } \n} \n \n /** \n * Exposes the JavaScript
[MediaError](https://developer.mozilla.org/en/docs/Web/API/MediaError) to Kotlin \n * \n public external abstract
class MediaError { \n    open val code: Short \n \n    companion object { \n        val MEDIA_ERR_ABORTED: Short \n
        val MEDIA_ERR_NETWORK:
Short \n        val MEDIA_ERR_DECODE: Short \n        val MEDIA_ERR_SRC_NOT_SUPPORTED: Short \n
    } \n} \n \n /** \n * Exposes the JavaScript
[AudioTrackList](https://developer.mozilla.org/en/docs/Web/API/AudioTrackList) to Kotlin \n * \n public external
abstract class AudioTrackList : EventTarget { \n    open val length: Int \n    open var onchange: ((Event) ->
dynamic)? \n    open var onaddtrack: ((TrackEvent) -> dynamic)? \n    open var onremovetrack: ((TrackEvent) ->
dynamic)? \n    fun getTrackById(id: String): AudioTrack? \n} \n \n @Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER") \n @kotlin.internal.InlineOnly \n public inline operator fun AudioTrackList.get(index:
Int): AudioTrack? = asDynamic()[index] \n \n /** \n * Exposes the JavaScript
[AudioTrack](https://developer.mozilla.org/en/docs/Web/API/AudioTrack) to Kotlin \n * \n public external abstract
class AudioTrack : UnionAudioTrackOrTextTrackOrVideoTrack { \n    open val id: String \n    open val kind:
String \n    open val label: String \n
    open val language: String \n    open var enabled: Boolean \n    open val sourceBuffer: SourceBuffer? \n} \n \n /** \n *
Exposes the JavaScript [VideoTrackList](https://developer.mozilla.org/en/docs/Web/API/VideoTrackList) to
Kotlin \n * \n public external abstract class VideoTrackList : EventTarget { \n    open val length: Int \n    open val
selectedIndex: Int \n    open var onchange: ((Event) -> dynamic)? \n    open var onaddtrack: ((TrackEvent) ->
dynamic)? \n    open var onremovetrack: ((TrackEvent) -> dynamic)? \n    fun getTrackById(id: String):
VideoTrack? \n} \n \n @Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER") \n @kotlin.internal.InlineOnly \n public inline operator fun VideoTrackList.get(index:
Int): VideoTrack? = asDynamic()[index] \n \n /** \n * Exposes the JavaScript
[VideoTrack](https://developer.mozilla.org/en/docs/Web/API/VideoTrack) to Kotlin \n * \n public external abstract
class VideoTrack : UnionAudioTrackOrTextTrackOrVideoTrack { \n    open val id: String \n    open val kind:
String \n
    open val label: String \n    open val language: String \n    open var selected: Boolean \n    open val sourceBuffer:
SourceBuffer? \n} \n \n public external abstract class TextTrackList : EventTarget { \n    open val length: Int \n    open
var onchange: ((Event) -> dynamic)? \n    open var onaddtrack: ((TrackEvent) -> dynamic)? \n    open var
onremovetrack: ((TrackEvent) -> dynamic)? \n    fun getTrackById(id: String):
TextTrack? \n} \n \n @Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER") \n @kotlin.internal.InlineOnly \n public inline operator fun TextTrackList.get(index: Int):
TextTrack? = asDynamic()[index] \n \n /** \n * Exposes the JavaScript
[TextTrack](https://developer.mozilla.org/en/docs/Web/API/TextTrack) to Kotlin \n * \n public external abstract
class TextTrack : EventTarget, UnionAudioTrackOrTextTrackOrVideoTrack { \n    open val kind: TextTrackKind \n
    open val label: String \n    open val language: String \n    open val id: String \n    open val
inBandMetadataTrackDispatchType: String \n
    open var mode: TextTrackMode \n    open val cues: TextTrackCueList? \n    open val activeCues:
TextTrackCueList? \n    open var oncuechange: ((Event) -> dynamic)? \n    open val sourceBuffer: SourceBuffer? \n
    fun addCue(cue: TextTrackCue) \n    fun removeCue(cue: TextTrackCue) \n} \n \n public external abstract class
TextTrackCueList { \n    open val length: Int \n    fun getCueById(id: String):
TextTrackCue? \n} \n \n @Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER") \n @kotlin.internal.InlineOnly \n public inline operator fun TextTrackCueList.get(index:
Int): TextTrackCue? = asDynamic()[index] \n \n /** \n * Exposes the JavaScript
[TextTrackCue](https://developer.mozilla.org/en/docs/Web/API/TextTrackCue) to Kotlin \n * \n public external

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abstract class TextTrackCue : EventTarget {\n  open val track: TextTrack?\n  open var id: String\n  open var
startTime: Double\n  open var endTime: Double\n  open var pauseOnExit: Boolean\n  open var onenter: ((Event)
-> dynamic)?\n  open var onexit: ((Event)
-> dynamic)?\n}\n\n/**\n * Exposes the JavaScript
[TimeRanges](https://developer.mozilla.org/en/docs/Web/API/TimeRanges) to Kotlin\n */\n\npublic external abstract
class TimeRanges {\n  open val length: Int\n  fun start(index: Int): Double\n  fun end(index: Int):
Double\n}\n\n/**\n * Exposes the JavaScript
[TrackEvent](https://developer.mozilla.org/en/docs/Web/API/TrackEvent) to Kotlin\n */\n\npublic external open class
TrackEvent(type: String, eventInitDict: TrackEventInit = definedExternally) : Event {\n  open val track:
UnionAudioTrackOrTextTrackOrVideoTrack?\n\n  companion object {\n    val NONE: Short\n    val
CAPTURING_PHASE: Short\n    val AT_TARGET: Short\n    val BUBBLING_PHASE: Short\n
}\n}\n\npublic external interface TrackEventInit : EventInit {\n  var track:
UnionAudioTrackOrTextTrackOrVideoTrack? /* = null */\n  get() = definedExternally\n  set(value) =
definedExternally\n}\n\n@Suppress(\\"INVISIBLE_REFERENCE\",
\\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\n\npublic
inline fun TrackEventInit(track: UnionAudioTrackOrTextTrackOrVideoTrack? = null, bubbles: Boolean? = false,
cancelable: Boolean? = false, composed: Boolean? = false): TrackEventInit {\n  val o = js(\\"({})\")\n  o[\"track\"]
= track\n  o[\"bubbles\"] = bubbles\n  o[\"cancelable\"] = cancelable\n  o[\"composed\"] = composed\n  return
o\n}\n\n/**\n * Exposes the JavaScript
[HTMLMapElement](https://developer.mozilla.org/en/docs/Web/API/HTMLMapElement) to Kotlin\n */\n\npublic
external abstract class HTMLMapElement : HTMLInputElement {\n  open var name: String\n  open val areas:
HTMLCollection\n\n  companion object {\n    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE:
Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val
ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n    val
PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n
    val DOCUMENT_TYPE_NODE: Short\n    val DOCUMENT_FRAGMENT_NODE: Short\n    val
NOTATION_NODE: Short\n    val DOCUMENT_POSITION_DISCONNECTED: Short\n    val
DOCUMENT_POSITION_PRECEDING: Short\n    val DOCUMENT_POSITION_FOLLOWING: Short\n
    val DOCUMENT_POSITION_CONTAINS: Short\n    val DOCUMENT_POSITION_CONTAINED_BY:
Short\n    val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n  }\n}\n\n/**\n * Exposes
the JavaScript [HTMLAreaElement](https://developer.mozilla.org/en/docs/Web/API/HTMLAreaElement) to
Kotlin\n */\n\npublic external abstract class HTMLAreaElement : HTMLInputElement, HTMLHyperlinkElementUtils {\n
open var alt: String\n  open var coords: String\n  open var shape: String\n  open var target: String\n  open var
download: String\n  open var ping: String\n  open var rel: String\n  open val relList: DOMTokenList\n  open
var referrerPolicy: String\n  open var noHref: Boolean\n\n  companion object {\n    val ELEMENT_NODE:
Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val
CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE:
Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n  }\n}\n\n/**\n * Exposes the JavaScript
[HTMLTableElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTableElement) to Kotlin\n */\n\npublic
external abstract class HTMLTableElement : HTMLInputElement {\n  open var caption:
HTMLTableCaptionElement?\n  open var tHead:

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HTMLTableSectionElement? open var tFoot: HTMLTableSectionElement? open val tBodies:
HTMLCollection open val rows: HTMLCollection open var align: String open var border: String
open var frame: String open var rules: String open var summary: String open var width: String open
var bgColor: String open var cellPadding: String open var cellSpacing: String fun createCaption():
HTMLTableCaptionElement fun deleteCaption() fun createTHead(): HTMLTableSectionElement fun
deleteTHead() fun createTFoot(): HTMLTableSectionElement fun deleteTFoot() fun createTBody():
HTMLTableSectionElement fun insertRow(index: Int = definedExternally): HTMLTableRowElement fun
deleteRow(index: Int)\n\n companion object {\n    val ELEMENT_NODE: Short\n    val
ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val
ENTITY_REFERENCE_NODE: Short\n
    val ENTITY_NODE: Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val
COMMENT_NODE: Short\n    val DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n
    val DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n } \n\n\n/**\n * Exposes the JavaScript
[HTMLTableCaptionElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTableCaptionElement) to
Kotlin\n */\npublic external abstract class HTMLTableCaptionElement : HTMLInputElement {\n    open var align:
String\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n
        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE:
Short\n        val ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val
COMMENT_NODE: Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n
        val DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    } \n\n\n\n/**\n * Exposes the JavaScript
[HTMLTableColElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTableColElement) to Kotlin\n
*/\npublic external abstract class HTMLTableColElement : HTMLInputElement {\n    open var span: Int\n    open var
align: String\n    open var ch: String\n    open var chOff: String\n    open var vAlign: String\n    open var width:
String\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val
CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE:
Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    } \n\n\n\n/**\n * Exposes the JavaScript
[HTMLTableSectionElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTableSectionElement) to
Kotlin\n */\npublic external abstract class HTMLTableSectionElement : HTMLInputElement {\n    open val rows:
HTMLCollection\n
    open var align: String\n    open var ch: String\n    open var chOff: String\n    open var vAlign: String\n    fun
insertRow(index: Int = definedExternally): HTMLInputElement\n    fun deleteRow(index: Int)\n\n\n    companion object
{\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n
        val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val

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DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING:
Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n    val
DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n
}\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun
HTMLFormElement.get(index: Int): Element? =
asDynamic()[index]\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun
HTMLFormElement.get(name: String): UnionElementOrRadioNodeList? = asDynamic()[name]\n\n/**\n * Exposes
the JavaScript [HTMLLabelElement](https://developer.mozilla.org/en/docs/Web/API/HTMLLabelElement) to
Kotlin\n *\npublic external abstract class HTMLLabelElement : HTMLInputElement {\n    open val form:
HTMLFormElement?\n    open var htmlFor: String\n    open val control: HTMLFormElement?\n\n    companion object
{\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n
val
CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE:
Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[HTMLInputElement](https://developer.mozilla.org/en/docs/Web/API/HTMLInputElement) to Kotlin\n *\npublic
external abstract class HTMLInputElement : HTMLFormElement {\n    open var accept: String\n    open var alt: String\n
open var autocomplete: String\n    open var autofocus: Boolean\n    open var defaultChecked: Boolean\n
    open var checked: Boolean\n    open var dirName: String\n    open var disabled: Boolean\n    open val form:
HTMLFormElement?\n    open val files: FileList?\n    open var formAction: String\n    open var formEnctype:
String\n    open var formMethod: String\n    open var formNoValidate: Boolean\n    open var formTarget: String\n
open var height: Int\n    open var indeterminate: Boolean\n    open var inputMode: String\n    open val list:
HTMLFormElement?\n    open var max: String\n    open var maxLength: Int\n    open var min: String\n    open var
minLength: Int\n    open var multiple: Boolean\n    open var name: String\n    open var pattern: String\n    open var
placeholder: String\n    open var readOnly: Boolean\n    open var required: Boolean\n    open var size: Int\n    open
var src: String\n    open var step: String\n    open var type: String\n    open var defaultValue: String\n    open var
value: String\n    open var valueAsDate: dynamic\n    open var valueAsNumber: Double\n
    open var width: Int\n    open val willValidate: Boolean\n    open val validity: ValidityState\n    open val
validationMessage: String\n    open val labels: NodeList\n    open var selectionStart: Int?\n    open var selectionEnd:
Int?\n    open var selectionDirection: String?\n    open var align: String\n    open var useMap: String\n    fun
stepUp(n: Int = definedExternally)\n    fun stepDown(n: Int = definedExternally)\n    fun checkValidity(): Boolean\n
    fun reportValidity(): Boolean\n    fun setCustomValidity(error: String)\n    fun select()\n    fun
setRangeText(replacement: String)\n    fun setRangeText(replacement: String, start: Int, end: Int, selectionMode:
SelectionMode = definedExternally)\n    fun setSelectionRange(start: Int, end: Int, direction: String =
definedExternally)\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE:
Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE:

```

```

Short\n    val ENTITY_NODE: Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val
COMMENT_NODE: Short\n    val DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n
    val DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[HTMLButtonElement](https://developer.mozilla.org/en/docs/Web/API/HTMLButtonElement) to Kotlin\n
*\n\npublic external abstract class HTMLButtonElement : HTMLElement {\n    open var autofocus: Boolean\n
open var disabled: Boolean\n    open val form: HTMLFormElement?\n    open var formAction: String\n    open var
formEncType: String\n    open var formMethod: String\n    open
var formNoValidate: Boolean\n    open var formTarget: String\n    open var name: String\n    open var type:
String\n    open var value: String\n    open var menu: HTMLMenuElement?\n    open val willValidate: Boolean\n
open val validity: ValidityState\n    open val validationMessage: String\n    open val labels: NodeList\n    fun
checkValidity(): Boolean\n    fun reportValidity(): Boolean\n    fun setCustomValidity(error: String)\n\n
companion object {\n    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val
TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE:
Short\n    val ENTITY_NODE: Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val
COMMENT_NODE: Short\n    val DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n
    val DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS:
Short\n    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[HTMLSelectElement](https://developer.mozilla.org/en/docs/Web/API/HTMLSelectElement) to Kotlin\n
*\n\npublic external abstract class HTMLSelectElement : HTMLElement, ItemArrayLike<Element> {\n    open var
autocomplete: String\n    open var autofocus: Boolean\n    open var disabled: Boolean\n    open val form:
HTMLFormElement?\n    open var multiple: Boolean\n    open var name: String\n    open var required: Boolean\n
open var size: Int\n    open val type: String\n    open val options: HTMLOptionsCollection\n    override var length:
Int\n    open val selectedOptions: HTMLCollection\n    open var selectedIndex: Int\n    open var value: String\n
open val willValidate: Boolean\n    open val validity: ValidityState\n    open val validationMessage:
String\n    open val labels: NodeList\n    fun namedItem(name: String): HTMLOptionElement?\n    fun
add(element: UnionHTMLOptGroupElementOrHTMLOptionElement, before: dynamic = definedExternally)\n    fun
remove(index: Int)\n    fun checkValidity(): Boolean\n    fun reportValidity(): Boolean\n    fun
setCustomValidity(error: String)\n    override fun item(index: Int): Element?\n\n    companion object {\n    val
ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val
CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE:
Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING:
Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n    val
DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n
}\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n\n@kotlin.internal.InlineOnly\n\npublic inline operator fun
HTMLSelectElement.get(index: Int): Element? =

```



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asDynamic()[index]\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n\n@kotlin.internal.InlineOnly\n\npublic inline operator fun
HTMLSelectElement.set(index: Int, option: HTMLOptionElement?) { asDynamic()[index] = option }\n\n/**\n *
Exposes the JavaScript
[HTMLDataListElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDataListElement) to Kotlin\n
*\n\npublic external abstract class HTMLDataListElement : HTMLInputElement {\n
open val options:
HTMLCollection\n\n
companion object {\n
val ELEMENT_NODE: Short\n
val ATTRIBUTE_NODE:
Short\n
val TEXT_NODE: Short\n
val CDATA_SECTION_NODE: Short\n
val
ENTITY_REFERENCE_NODE:
Short\n
val ENTITY_NODE: Short\n
val PROCESSING_INSTRUCTION_NODE: Short\n
val
COMMENT_NODE: Short\n
val DOCUMENT_NODE: Short\n
val DOCUMENT_TYPE_NODE: Short\n
val
DOCUMENT_FRAGMENT_NODE: Short\n
val NOTATION_NODE: Short\n
val
DOCUMENT_POSITION_DISCONNECTED: Short\n
val DOCUMENT_POSITION_PRECEDING: Short\n
val
DOCUMENT_POSITION_FOLLOWING: Short\n
val DOCUMENT_POSITION_CONTAINS: Short\n
val
DOCUMENT_POSITION_CONTAINED_BY: Short\n
val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n
}\n}\n\n/**\n * Exposes the JavaScript
[HTMLOptGroupElement](https://developer.mozilla.org/en/docs/Web/API/HTMLOptGroupElement) to Kotlin\n
*\n\npublic external abstract class HTMLOptGroupElement : HTMLInputElement,
UnionHTMLOptGroupElementOrHTMLOptionElement {\n
open var disabled: Boolean\n
open var label:
String\n\n
companion object {\n
val ELEMENT_NODE: Short\n
val ATTRIBUTE_NODE: Short\n
val
TEXT_NODE: Short\n
val CDATA_SECTION_NODE: Short\n
val
ENTITY_REFERENCE_NODE: Short\n
val ENTITY_NODE: Short\n
val
PROCESSING_INSTRUCTION_NODE: Short\n
val COMMENT_NODE: Short\n
val
DOCUMENT_NODE: Short\n
val DOCUMENT_TYPE_NODE: Short\n
val
DOCUMENT_FRAGMENT_NODE: Short\n
val NOTATION_NODE: Short\n
val
DOCUMENT_POSITION_DISCONNECTED: Short\n
val DOCUMENT_POSITION_PRECEDING: Short\n
val
DOCUMENT_POSITION_FOLLOWING: Short\n
val DOCUMENT_POSITION_CONTAINS: Short\n
val
DOCUMENT_POSITION_CONTAINED_BY: Short\n
val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n
}\n}\n\n/**\n * Exposes the JavaScript
[HTMLOptionElement](https://developer.mozilla.org/en/docs/Web/API/HTMLOptionElement) to Kotlin\n
*\n\npublic external abstract class HTMLOptionElement : HTMLInputElement,
UnionHTMLOptGroupElementOrHTMLOptionElement {\n
open var disabled: Boolean\n
open val form:
HTMLFormElement?\n
open var label: String\n
open var defaultSelected: Boolean\n
open var selected: Boolean\n
open var value:
String\n
open var text: String\n
open val index: Int\n\n
companion object {\n
val ELEMENT_NODE:
Short\n
val ATTRIBUTE_NODE: Short\n
val TEXT_NODE: Short\n
val CDATA_SECTION_NODE:
Short\n
val ENTITY_REFERENCE_NODE: Short\n
val ENTITY_NODE: Short\n
val
PROCESSING_INSTRUCTION_NODE: Short\n
val COMMENT_NODE: Short\n
val
DOCUMENT_NODE: Short\n
val DOCUMENT_TYPE_NODE: Short\n
val
DOCUMENT_FRAGMENT_NODE: Short\n
val NOTATION_NODE: Short\n
val
DOCUMENT_POSITION_DISCONNECTED: Short\n
val DOCUMENT_POSITION_PRECEDING: Short\n
val
DOCUMENT_POSITION_FOLLOWING: Short\n
val DOCUMENT_POSITION_CONTAINS: Short\n
val
DOCUMENT_POSITION_CONTAINED_BY: Short\n
val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n
}\n}\n\n/**\n * Exposes the JavaScript
[HTMLTextAreaElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTextAreaElement) to Kotlin\n
*\n\npublic external abstract class HTMLTextAreaElement : HTMLInputElement {\n
open var autocomplete: String\n
open var autofocus: Boolean\n
open var cols: Int\n
open var dirName: String\n
open var disabled: Boolean\n
open val form: HTMLFormElement?\n
open var inputMode: String\n
open var maxLength: Int\n
open var

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minLength: Int\n  open var name: String\n  open var placeholder: String\n  open var readOnly: Boolean\n  open
var required: Boolean\n  open var rows: Int\n  open var wrap: String\n  open val type: String\n  open var
defaultValue: String\n  open var value: String\n  open val maxLength: Int\n  open val willValidate: Boolean\n
open val validity: ValidityState\n  open val validationMessage: String\n  open val labels: NodeList\n  open var
selectionStart: Int?\n  open var selectionEnd: Int?\n  open var selectionDirection:
String?\n  fun checkValidity(): Boolean\n  fun reportValidity(): Boolean\n  fun setCustomValidity(error:
String)\n  fun select()\n  fun setRangeText(replacement: String)\n  fun setRangeText(replacement: String, start:
Int, end: Int, selectionMode: SelectionMode = definedExternally)\n  fun setSelectionRange(start: Int, end: Int,
direction: String = definedExternally)\n\n  companion object {\n    val ELEMENT_NODE: Short\n    val
ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val
ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n    val
PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n
    val DOCUMENT_POSITION_CONTAINS: Short\n    val DOCUMENT_POSITION_CONTAINED_BY:
Short\n    val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n  }\n\n  /**\n * Exposes
the JavaScript [HTMLKeygenElement](https://developer.mozilla.org/en/docs/Web/API/HTMLKeygenElement) to
Kotlin\n */\n\n  public external abstract class HTMLKeygenElement : HTMLElement {\n    open var autofocus:
Boolean\n    open var challenge: String\n    open var disabled: Boolean\n    open val form: HTMLFormElement?\n
open var keytype: String\n    open var name: String\n    open val type: String\n    open val willValidate: Boolean\n
open val validity: ValidityState\n    open val validationMessage: String\n    open val labels: NodeList\n    fun
checkValidity(): Boolean\n    fun reportValidity(): Boolean\n    fun setCustomValidity(error: String)\n\n    companion object {\n      val ELEMENT_NODE: Short\n      val ATTRIBUTE_NODE: Short\n      val
TEXT_NODE: Short\n      val CDATA_SECTION_NODE:
Short\n      val ENTITY_REFERENCE_NODE: Short\n      val ENTITY_NODE: Short\n      val
PROCESSING_INSTRUCTION_NODE: Short\n      val COMMENT_NODE: Short\n      val
DOCUMENT_NODE: Short\n      val DOCUMENT_TYPE_NODE: Short\n      val
DOCUMENT_FRAGMENT_NODE: Short\n      val NOTATION_NODE: Short\n      val
DOCUMENT_POSITION_DISCONNECTED: Short\n      val DOCUMENT_POSITION_PRECEDING: Short\n
      val DOCUMENT_POSITION_FOLLOWING: Short\n      val DOCUMENT_POSITION_CONTAINS: Short\n
      val DOCUMENT_POSITION_CONTAINED_BY: Short\n      val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n\n    /**\n * Exposes the JavaScript
[HTMLOutputElement](https://developer.mozilla.org/en/docs/Web/API/HTMLOutputElement) to Kotlin\n */\n\n
    public external abstract class HTMLOutputElement : HTMLElement {\n      open val htmlFor: DOMTokenList\n
open val form: HTMLFormElement?\n      open var name: String\n      open val type: String\n      open var
defaultValue: String\n      open
var value: String\n      open val willValidate: Boolean\n      open val validity: ValidityState\n      open val
validationMessage: String\n      open val labels: NodeList\n      fun checkValidity(): Boolean\n      fun reportValidity():
Boolean\n      fun setCustomValidity(error: String)\n\n      companion object {\n        val ELEMENT_NODE: Short\n
        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n
        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n

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    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[HTMLProgressElement](https://developer.mozilla.org/en/docs/Web/API/HTMLProgressElement) to Kotlin\n
*/\n\npublic external abstract class HTMLProgressElement : HTMLElement {\n    open var value: Double\n    open
var max: Double\n    open val position: Double\n    open val labels: NodeList\n\n    companion object {\n        val
ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val
CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE:
Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n
        val DOCUMENT_POSITION_CONTAINS: Short\n        val DOCUMENT_POSITION_CONTAINED_BY:
Short\n        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes
the JavaScript [HTMLMeterElement](https://developer.mozilla.org/en/docs/Web/API/HTMLMeterElement) to
Kotlin\n
*/\n\npublic external abstract class HTMLMeterElement : HTMLElement {\n    open var value: Double\n
open var min: Double\n    open var max: Double\n    open var low: Double\n    open var high: Double\n
open var optimum: Double\n    open val labels: NodeList\n\n    companion object {\n        val
ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val
CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n
        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n
        val NOTATION_NODE: Short\n        val DOCUMENT_POSITION_DISCONNECTED: Short\n        val
DOCUMENT_POSITION_PRECEDING: Short\n        val DOCUMENT_POSITION_FOLLOWING: Short\n
        val DOCUMENT_POSITION_CONTAINS: Short\n        val DOCUMENT_POSITION_CONTAINED_BY:
Short\n        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes
the JavaScript [HTMLFieldSetElement](https://developer.mozilla.org/en/docs/Web/API/HTMLFieldSetElement) to
Kotlin\n
*/\n\npublic external abstract class HTMLFieldSetElement : HTMLElement {\n    open var disabled:
Boolean\n    open val form: HTMLFormElement?\n    open var name: String\n    open val type: String\n
open val elements: HTMLCollection\n    open val willValidate: Boolean\n    open val validity: ValidityState\n
open val validationMessage: String\n    fun checkValidity(): Boolean\n    fun reportValidity(): Boolean\n
fun setCustomValidity(error: String)\n\n    companion object {\n        val ELEMENT_NODE: Short\n
        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n
        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[HTMLLegendElement](https://developer.mozilla.org/en/docs/Web/API/HTMLLegendElement) to Kotlin\n
*/\n\npublic external abstract class HTMLLegendElement : HTMLElement {\n    open val form:
HTMLFormElement?\n    open var align: String\n\n    companion
object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE:
Short\n        val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val
ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE:

```

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Short\n    val DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[ValidityState](https://developer.mozilla.org/en/docs/Web/API/ValidityState) to Kotlin\n */\npublic external
abstract class ValidityState {\n    open val valueMissing: Boolean\n    open val typeMismatch:
Boolean\n    open val patternMismatch: Boolean\n    open val tooLong: Boolean\n    open val tooShort: Boolean\n
    open val rangeUnderflow: Boolean\n    open val rangeOverflow: Boolean\n    open val stepMismatch: Boolean\n
    open val badInput: Boolean\n    open val customError: Boolean\n    open val valid: Boolean\n}\n\n/**\n * Exposes
the JavaScript [HTMLDetailsElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDetailsElement) to
Kotlin\n */\npublic external abstract class HTMLDetailsElement : HTMLInputElement {\n    open var open: Boolean\n\n
companion object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val
TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE:
Short\n        val ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val
COMMENT_NODE: Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n
        val DOCUMENT_FRAGMENT_NODE: Short\n
        val NOTATION_NODE: Short\n        val DOCUMENT_POSITION_DISCONNECTED: Short\n        val
DOCUMENT_POSITION_PRECEDING: Short\n        val DOCUMENT_POSITION_FOLLOWING: Short\n
        val DOCUMENT_POSITION_CONTAINS: Short\n        val DOCUMENT_POSITION_CONTAINED_BY:
Short\n        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\npublic external
abstract class HTMLMenuItemElement : HTMLInputElement {\n    open var type: String\n    open var label: String\n    open
var compact: Boolean\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val
ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED:
Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n        val
DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\npublic external abstract class
HTMLMenuItemElement : HTMLInputElement {\n    open var type: String\n    open var label: String\n    open var icon:
String\n    open var disabled: Boolean\n    open var checked: Boolean\n    open var radiogroup: String\n    open var
default: Boolean\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE:
Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n
        val NOTATION_NODE: Short\n        val DOCUMENT_POSITION_DISCONNECTED: Short\n        val
DOCUMENT_POSITION_PRECEDING: Short\n        val DOCUMENT_POSITION_FOLLOWING: Short\n
        val DOCUMENT_POSITION_CONTAINS: Short\n        val DOCUMENT_POSITION_CONTAINED_BY:
Short\n        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\npublic external
open class RelatedEvent(type: String, eventInitDict: RelatedEventInit = definedExternally) : Event {\n    open val
relatedTarget: EventTarget?\n\n    companion object {\n        val NONE: Short\n        val CAPTURING_PHASE:

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Short\n    val AT_TARGET: Short\n    val BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface
RelatedEventInit : EventInit {\n    var relatedTarget: EventTarget? /* = null */\n    get() = definedExternally\n
set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun RelatedEventInit(relatedTarget:
EventTarget?
= null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): RelatedEventInit {\n
val o = js(\"({})\")\n    o[\"relatedTarget\"] = relatedTarget\n    o[\"bubbles\"] = bubbles\n    o[\"cancelable\"] =
cancelable\n    o[\"composed\"] = composed\n    return o\n}\n\n/**\n * Exposes the JavaScript
[HTMLDialogElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDialogElement) to Kotlin\n
*/\npublic external abstract class HTMLDialogElement : HTMLInputElement {\n    open var open: Boolean\n    open var
returnValue: String\n    fun show(anchor: UnionElementOrMouseEvent = definedExternally)\n    fun
showModal(anchor: UnionElementOrMouseEvent = definedExternally)\n    fun close(returnValue: String =
definedExternally)\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE:
Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n
        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[HTMLScriptElement](https://developer.mozilla.org/en/docs/Web/API/HTMLScriptElement) to Kotlin\n
*/\npublic external abstract class HTMLScriptElement : HTMLInputElement, HTMLScriptElement {\n    open var src:
String\n    open var type: String\n    open var charset: String\n    open var async: Boolean\n    open var defer:
Boolean\n    open var crossOrigin: String?\n    open var text: String\n    open var nonce:
String\n    open var event: String\n    open var htmlFor: String\n\n    companion object {\n        val
ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val
CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE:
Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n}\n\n/**\n * Exposes the JavaScript
[HTMLTemplateElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTemplateElement) to Kotlin\n
*/\npublic external
abstract class HTMLTemplateElement : HTMLInputElement {\n    open val content: DocumentFragment\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val
TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE:
Short\n        val ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val
COMMENT_NODE: Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n
        val DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n}\n\n/**\n * Exposes the JavaScript

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[HTMLSlotElement](https://developer.mozilla.org/en/docs/Web/API/HTMLSlotElement) to Kotlin
*/\npublic external abstract class HTMLSlotElement : HTMLInputElement {\n    open var name: String\n    fun assignedNodes(options: AssignedNodesOptions = definedExternally): Array<Node>\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n\n    public external interface AssignedNodesOptions {\n        var flatten: Boolean? /* = false */\n        get() = definedExternally\n        set(value) = definedExternally\n    }\n\n    @Suppress("INVISIBLE_REFERENCE", "INVISIBLE_MEMBER")\n    @kotlin.internal.InlineOnly\n    public inline fun AssignedNodesOptions(flatten: Boolean? = false): AssignedNodesOptions {\n        val o = js("{}")\n        o["flatten"] = flatten\n        return o\n    }\n\n    /**\n     * Exposes the JavaScript
[HTMLCanvasElement](https://developer.mozilla.org/en/docs/Web/API/HTMLCanvasElement) to Kotlin
*/\npublic external abstract class HTMLCanvasElement : HTMLInputElement, CanvasImageSource, TexImageSource {\n    open var width: Int\n    open var height: Int\n    fun getContext(contextId: String, vararg arguments: Any?): RenderingContext?\n    fun toDataURL(type: String = definedExternally, quality: Any? = definedExternally): String\n    fun toBlob(_callback: (Blob?) -> Unit, type: String = definedExternally, quality: Any? = definedExternally)\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n\n    public external interface CanvasRenderingContext2DSettings {\n        var alpha: Boolean? /* = true */\n        get() = definedExternally\n        set(value) = definedExternally\n    }\n\n    @Suppress("INVISIBLE_REFERENCE", "INVISIBLE_MEMBER")\n    @kotlin.internal.InlineOnly\n    public inline fun CanvasRenderingContext2DSettings(alpha: Boolean? = true): CanvasRenderingContext2DSettings {\n        val o = js("{}")\n        o["alpha"] = alpha\n        return o\n    }\n\n    /**\n     * Exposes the JavaScript
[CanvasRenderingContext2D](https://developer.mozilla.org/en/docs/Web/API/CanvasRenderingContext2D) to Kotlin
*/\npublic external abstract class CanvasRenderingContext2D : CanvasState, CanvasTransform, CanvasCompositing, CanvasImageSmoothing, CanvasFillStrokeStyles, CanvasShadowStyles, CanvasFilters, CanvasRect, CanvasDrawPath, CanvasUserInterface, CanvasText, CanvasDrawImage, CanvasHitRegion, CanvasImageData, CanvasPathDrawingStyles, CanvasTextDrawingStyles, CanvasPath, RenderingContext {\n    open val canvas: HTMLCanvasElement\n\n    public external interface CanvasState {\n        fun save()\n        fun restore()\n    }\n\n    public external interface CanvasTransform {\n        fun scale(x: Double, y: Double)\n        fun rotate(angle: Double)\n        fun translate(x: Double, y: Double)\n        fun transform(a: Double, b: Double, c: Double, d: Double, e: Double, f: Double)\n        fun getTransform(): DOMMatrix\n        fun setTransform(a: Double, b: Double, c: Double, d: Double, e: Double, f: Double)\n        fun setTransform(transform: dynamic = definedExternally)\n        fun resetTransform()\n    }\n\n    public

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external interface CanvasCompositing {\n  var globalAlpha: Double\n  var globalCompositeOperation:
String\n}\n\npublic external interface CanvasImageSmoothing {\n  var imageSmoothingEnabled: Boolean\n  var
imageSmoothingQuality: ImageSmoothingQuality\n}\n\npublic external interface CanvasFillStrokeStyles {\n  var
strokeStyle: dynamic\n  get() = definedExternally\n  set(value) = definedExternally\n  var fillStyle:
dynamic\n  get() = definedExternally\n  set(value) = definedExternally\n  fun createLinearGradient(x0:
Double, y0: Double, x1: Double, y1: Double): CanvasGradient\n  fun createRadialGradient(x0: Double, y0:
Double,
r0: Double, x1: Double, y1: Double, r1: Double): CanvasGradient\n  fun createPattern(image:
CanvasImageSource, repetition: String): CanvasPattern?\n}\n\npublic external interface CanvasShadowStyles {\n
var shadowOffsetX: Double\n  var shadowOffsetY: Double\n  var shadowBlur: Double\n  var shadowColor:
String\n}\n\npublic external interface CanvasFilters {\n  var filter: String\n}\n\npublic external interface
CanvasRect {\n  fun clearRect(x: Double, y: Double, w: Double, h: Double)\n  fun fillRect(x: Double, y: Double,
w: Double, h: Double)\n  fun strokeRect(x: Double, y: Double, w: Double, h: Double)\n}\n\npublic external
interface CanvasDrawPath {\n  fun beginPath()\n  fun fill(fillRule: CanvasFillRule = definedExternally)\n  fun
fill(path: Path2D, fillRule: CanvasFillRule = definedExternally)\n  fun stroke()\n  fun stroke(path: Path2D)\n
fun clip(fillRule: CanvasFillRule = definedExternally)\n  fun clip(path: Path2D, fillRule: CanvasFillRule =
definedExternally)\n
  fun resetClip()\n  fun isPointInPath(x: Double, y: Double, fillRule: CanvasFillRule = definedExternally):
Boolean\n  fun isPointInPath(path: Path2D, x: Double, y: Double, fillRule: CanvasFillRule = definedExternally):
Boolean\n  fun isPointInStroke(x: Double, y: Double): Boolean\n  fun isPointInStroke(path: Path2D, x: Double,
y: Double): Boolean\n}\n\npublic external interface CanvasUserInterface {\n  fun drawFocusIfNeeded(element:
Element)\n  fun drawFocusIfNeeded(path: Path2D, element: Element)\n  fun scrollPathIntoView()\n  fun
scrollPathIntoView(path: Path2D)\n}\n\npublic external interface CanvasText {\n  fun fillText(text: String, x:
Double, y: Double, maxWidth: Double = definedExternally)\n  fun strokeText(text: String, x: Double, y: Double,
maxWidth: Double = definedExternally)\n  fun measureText(text: String): TextMetrics\n}\n\npublic external
interface CanvasDrawImage {\n  fun drawImage(image: CanvasImageSource, dx: Double, dy: Double)\n
  fun drawImage(image: CanvasImageSource, dx: Double, dy: Double, dw: Double, dh: Double)\n  fun
drawImage(image: CanvasImageSource, sx: Double, sy: Double, sw: Double, sh: Double, dx: Double, dy: Double,
dw: Double, dh: Double)\n}\n\npublic external interface CanvasHitRegion {\n  fun addHitRegion(options:
HitRegionOptions = definedExternally)\n  fun removeHitRegion(id: String)\n  fun clearHitRegions()\n}\n\npublic
external interface CanvasImageData {\n  fun createImageData(sw: Double, sh: Double): ImageData\n  fun
createImageData(imagedata: ImageData): ImageData\n  fun getImageData(sx: Double, sy: Double, sw: Double, sh:
Double): ImageData\n  fun putImageData(imagedata: ImageData, dx: Double, dy: Double)\n  fun
putImageData(imagedata: ImageData, dx: Double, dy: Double, dirtyX: Double, dirtyY: Double, dirtyWidth: Double,
dirtyHeight: Double)\n}\n\npublic external interface CanvasPathDrawingStyles {\n  var lineWidth: Double\n  var
lineCap: CanvasLineCap\n
  var lineJoin: CanvasLineJoin\n  var miterLimit: Double\n  var lineDashOffset: Double\n  fun
setLineDash(segments: Array<Double>)\n  fun getLineDash(): Array<Double>\n}\n\npublic external interface
CanvasTextDrawingStyles {\n  var font: String\n  var textAlign: CanvasTextAlign\n  var textBaseline:
CanvasTextBaseline\n  var direction: CanvasDirection\n}\n\npublic external interface CanvasPath {\n  fun
closePath()\n  fun moveTo(x: Double, y: Double)\n  fun lineTo(x: Double, y: Double)\n  fun
quadraticCurveTo(cpx: Double, cpy: Double, x: Double, y: Double)\n  fun bezierCurveTo(cp1x: Double, cp1y:
Double, cp2x: Double, cp2y: Double, x: Double, y: Double)\n  fun arcTo(x1: Double, y1: Double, x2: Double, y2:
Double, radius: Double)\n  fun arcTo(x1: Double, y1: Double, x2: Double, y2: Double, radiusX: Double, radiusY:
Double, rotation: Double)\n  fun rect(x: Double, y: Double, w: Double, h: Double)\n  fun arc(x: Double, y:
Double, radius: Double, startAngle: Double,
endAngle: Double, anticlockwise: Boolean = definedExternally)\n  fun ellipse(x: Double, y: Double, radiusX:
Double, radiusY: Double, rotation: Double, startAngle: Double, endAngle: Double, anticlockwise: Boolean =

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definedExternally)\n}\n\n/**\n * Exposes the JavaScript
[CanvasGradient](https://developer.mozilla.org/en/docs/Web/API/CanvasGradient) to Kotlin\n */\npublic external
abstract class CanvasGradient {\n    fun addColorStop(offset: Double, color: String)\n}\n\n/**\n * Exposes the
JavaScript [CanvasPattern](https://developer.mozilla.org/en/docs/Web/API/CanvasPattern) to Kotlin\n */\npublic
external abstract class CanvasPattern {\n    fun setTransform(transform: dynamic = definedExternally)\n}\n\n/**\n *
Exposes the JavaScript [TextMetrics](https://developer.mozilla.org/en/docs/Web/API/TextMetrics) to Kotlin\n
*/\npublic external abstract class TextMetrics {\n    open val width: Double\n    open val actualBoundingBoxLeft:
Double\n    open val actualBoundingBoxRight: Double\n
    open val fontBoundingBoxAscent: Double\n    open val fontBoundingBoxDescent: Double\n    open val
actualBoundingBoxAscent: Double\n    open val actualBoundingBoxDescent: Double\n    open val
emHeightAscent: Double\n    open val emHeightDescent: Double\n    open val hangingBaseline: Double\n    open
val alphabeticBaseline: Double\n    open val ideographicBaseline: Double\n}\n\npublic external interface
HitRegionOptions {\n    var path: Path2D? /* = null */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var fillRule: CanvasFillRule? /* = CanvasFillRule.NONZERO */\n        get() =
definedExternally\n        set(value) = definedExternally\n    var id: String? /* = "" */\n        get() =
definedExternally\n        set(value) = definedExternally\n    var parentId: String? /* = null */\n        get() =
definedExternally\n        set(value) = definedExternally\n    var cursor: String? /* = "inherit" */\n        get() =
definedExternally\n        set(value)
= definedExternally\n    var control: Element? /* = null */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var label: String? /* = null */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var role: String? /* = null */\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n\n@kotlin.internal.InlineOnly\npublic inline fun HitRegionOptions(path: Path2D? =
null, fillRule: CanvasFillRule? = CanvasFillRule.NONZERO, id: String? = "", parentId: String? = null, cursor:
String? = "inherit", control: Element? = null, label: String? = null, role: String? = null): HitRegionOptions {\n    val
o = js("{}")\n    o["path"] = path\n    o["fillRule"] = fillRule\n    o["id"] = id\n    o["parentId"] = parentId\n    o["cursor"] = cursor\n    o["control"] = control\n    o["label"] = label\n    o["role"] = role\n    return
o\n}\n\n/**\n * Exposes the JavaScript [ImageData](https://developer.mozilla.org/en/docs/Web/API/ImageData) to Kotlin\n
*/\npublic external open class ImageData : ImageBitmapSource, TexImageSource {\n    constructor(sw: Int, sh:
Int)\n    constructor(data: Uint8ClampedArray, sw: Int, sh: Int = definedExternally)\n    open val width: Int\n    open
val height: Int\n    open val data: Uint8ClampedArray\n}\n\n/**\n * Exposes the JavaScript
[Path2D](https://developer.mozilla.org/en/docs/Web/API/Path2D) to Kotlin\n */\npublic external open class
Path2D() : CanvasPath {\n    constructor(path: Path2D)\n    constructor(paths: Array<Path2D>, fillRule:
CanvasFillRule = definedExternally)\n    constructor(d: String)\n    fun addPath(path: Path2D, transform: dynamic =
definedExternally)\n    override fun closePath()\n    override fun moveTo(x: Double, y: Double)\n    override fun
lineTo(x: Double, y: Double)\n    override fun quadraticCurveTo(cpx: Double, cpy: Double, x: Double, y: Double)\n
    override fun bezierCurveTo(cp1x:
Double, cp1y: Double, cp2x: Double, cp2y: Double, x: Double, y: Double)\n    override fun arcTo(x1: Double, y1:
Double, x2: Double, y2: Double, radius: Double)\n    override fun arcTo(x1: Double, y1: Double, x2: Double, y2:
Double, radiusX: Double, radiusY: Double, rotation: Double)\n    override fun rect(x: Double, y: Double, w: Double,
h: Double)\n    override fun arc(x: Double, y: Double, radius: Double, startAngle: Double, endAngle: Double,
anticlockwise: Boolean /* = definedExternally */) \n    override fun ellipse(x: Double, y: Double, radiusX: Double,
radiusY: Double, rotation: Double, startAngle: Double, endAngle: Double, anticlockwise: Boolean /* =
definedExternally */) \n}\n\n/**\n * Exposes the JavaScript
[ImageBitmapRenderingContext](https://developer.mozilla.org/en/docs/Web/API/ImageBitmapRenderingContext)
to Kotlin\n */\npublic external abstract class ImageBitmapRenderingContext {\n    open val canvas:
HTMLCanvasElement\n    fun transferFromImageBitmap(bitmap:

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ImageBitmap?)\n}\n\npublic external interface ImageBitmapRenderingContextSettings {\n    var alpha: Boolean? /*
= true */\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress(\\"INVISIBLE_REFERENCE\",
\\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun
ImageBitmapRenderingContextSettings(alpha: Boolean? = true): ImageBitmapRenderingContextSettings {\n    val o
= js(\\"({})\")\n    o[\"alpha\"] = alpha\n    return o\n}\n\n/**\n * Exposes the JavaScript
[CustomElementRegistry](https://developer.mozilla.org/en/docs/Web/API/CustomElementRegistry) to Kotlin\n
*/\npublic external abstract class CustomElementRegistry {\n    fun define(name: String, constructor: () -> dynamic,
options: ElementDefinitionOptions = definedExternally)\n    fun get(name: String): Any?\n    fun
whenDefined(name: String): Promise<Unit>\n}\n\npublic external interface ElementDefinitionOptions {\n    var
extends: String?\n    get() = definedExternally\n
    set(value) = definedExternally\n}\n\n@Suppress(\\"INVISIBLE_REFERENCE\",
\\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ElementDefinitionOptions(extends:
String? = undefined): ElementDefinitionOptions {\n    val o = js(\\"({})\")\n    o[\"extends\"] = extends\n    return
o\n}\n\npublic external interface ElementContentEditable {\n    var contentEditable: String\n    val
isContentEditable: Boolean\n}\n\n/**\n * Exposes the JavaScript
[DataTransfer](https://developer.mozilla.org/en/docs/Web/API/DataTransfer) to Kotlin\n
*/\npublic external
abstract class DataTransfer {\n    open var dropEffect: String\n    open var effectAllowed: String\n    open val items:
DataTransferItemList\n    open val types: Array<out String>\n    open val files: FileList\n    fun
setDragImage(image: Element, x: Int, y: Int)\n    fun getData(format: String): String\n    fun setData(format: String,
data: String)\n    fun clearData(format: String = definedExternally)\n}\n\n/**\n * Exposes the
JavaScript [DataTransferItemList](https://developer.mozilla.org/en/docs/Web/API/DataTransferItemList) to
Kotlin\n
*/\npublic external abstract class DataTransferItemList {\n    open val length: Int\n    fun add(data: String,
type: String): DataTransferItem?\n    fun add(data: File): DataTransferItem?\n    fun remove(index: Int)\n    fun
clear()\n}\n\n@Suppress(\\"INVISIBLE_REFERENCE\",
\\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun
DataTransferItemList.get(index: Int): DataTransferItem? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript
[DataTransferItem](https://developer.mozilla.org/en/docs/Web/API/DataTransferItem) to Kotlin\n
*/\npublic
external abstract class DataTransferItem {\n    open val kind: String\n    open val type: String\n    fun
getAsString(_callback: ((String) -> Unit)?)\n    fun getAsFile(): File?\n}\n\n/**\n * Exposes the JavaScript
[DragEvent](https://developer.mozilla.org/en/docs/Web/API/TouchEvent) to Kotlin\n
*/\npublic external
open class DragEvent(type: String, eventInitDict: DragEventInit = definedExternally) : MouseEvent {\n    open val
dataTransfer: DataTransfer?\n\n    companion object {\n        val NONE: Short\n        val CAPTURING_PHASE:
Short\n        val AT_TARGET: Short\n        val BUBBLING_PHASE: Short\n    }\n\n    public external interface
DragEventInit : MouseEventInit {\n        var dataTransfer: DataTransfer? /* = null */\n        get() = definedExternally\n
        set(value) = definedExternally\n}\n\n@Suppress(\\"INVISIBLE_REFERENCE\",
\\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun DragEventInit(dataTransfer:
DataTransfer? = null, screenX: Int? = 0, screenY: Int? = 0, clientX: Int? = 0, clientY: Int? = 0, button: Short? = 0,
buttons: Short? = 0, relatedTarget: EventTarget? = null, region: String? = null, ctrlKey: Boolean? = false, shiftKey:
Boolean? = false, altKey: Boolean? = false, metaKey: Boolean? = false, modifierAltGraph: Boolean? = false,
modifierCapsLock: Boolean?
= false, modifierFn: Boolean? = false, modifierFnLock: Boolean? = false, modifierHyper: Boolean? = false,
modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? = false, modifierSuper: Boolean? = false,
modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false, view: Window? = null, detail: Int? = 0,
bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): DragEventInit {\n    val o =
js(\\"({})\")\n    o[\"dataTransfer\"] = dataTransfer\n    o[\"screenX\"] = screenX\n    o[\"screenY\"] = screenY\n
    o[\"clientX\"] = clientX\n    o[\"clientY\"] = clientY\n    o[\"button\"] = button\n    o[\"buttons\"] = buttons\n
    o[\"relatedTarget\"] = relatedTarget\n    o[\"region\"] = region\n    o[\"ctrlKey\"] = ctrlKey\n    o[\"shiftKey\"] =

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shiftKey\n o["altKey"] = altKey\n o["metaKey"] = metaKey\n o["modifierAltGraph"] =
modifierAltGraph\n o["modifierCapsLock"] = modifierCapsLock\n o["modifierFn"] = modifierFn\n
o["modifierFnLock"] = modifierFnLock\n o["modifierHyper"] = modifierHyper\n o["modifierNumLock"]
= modifierNumLock\n o["modifierScrollLock"] = modifierScrollLock\n o["modifierSuper"] =
modifierSuper\n o["modifierSymbol"] = modifierSymbol\n o["modifierSymbolLock"] =
modifierSymbolLock\n o["view"] = view\n o["detail"] = detail\n o["bubbles"] = bubbles\n
o["cancelable"] = cancelable\n o["composed"] = composed\n return o\n}\n\n/**\n * Exposes the JavaScript
[Window](https://developer.mozilla.org/en/docs/Web/API/Window) to Kotlin\n */\npublic external abstract class
Window : EventTarget, GlobalEventHandlers, WindowEventHandlers, WindowOrWorkerGlobalScope,
WindowSessionStorage, WindowLocalStorage, GlobalPerformance, UnionMessagePortOrWindowProxy {\n open
val window: Window\n open val self: Window\n open val document: Document\n open var name: String\n
open val location: Location\n open val history: History\n open
val customElements: CustomElementRegistry\n open val locationbar: BarProp\n open val menubar: BarProp\n
open val personalbar: BarProp\n open val scrollbars: BarProp\n open val statusbar: BarProp\n open val
toolbar: BarProp\n open var status: String\n open val closed: Boolean\n open val frames: Window\n open val
length: Int\n open val top: Window\n open var opener: Any?\n open val parent: Window\n open val
frameElement: Element?\n open val navigator: Navigator\n open val applicationCache: ApplicationCache\n
open val external: External\n open val screen: Screen\n open val innerWidth: Int\n open val innerHeight: Int\n
open val scrollX: Double\n open val pageXOffset: Double\n open val scrollY: Double\n open val
pageYOffset: Double\n open val screenX: Int\n open val screenY: Int\n open val outerWidth: Int\n open val
outerHeight: Int\n open val devicePixelRatio: Double\n fun close()\n fun stop()\n
fun focus()\n fun blur()\n fun open(url: String = definedExternally, target: String = definedExternally,
features: String = definedExternally): Window?\n fun alert()\n fun alert(message: String)\n fun
confirm(message: String = definedExternally): Boolean\n fun prompt(message: String = definedExternally,
default: String = definedExternally): String?\n fun print()\n fun requestAnimationFrame(callback: (Double) ->
Unit): Int\n fun cancelAnimationFrame(handle: Int)\n fun postMessage(message: Any?, targetOrigin: String,
transfer: Array<dynamic> = definedExternally)\n fun captureEvents()\n fun releaseEvents()\n fun
matchMedia(query: String): MediaQueryList\n fun moveTo(x: Int, y: Int)\n fun moveBy(x: Int, y: Int)\n fun
resizeTo(x: Int, y: Int)\n fun resizeBy(x: Int, y: Int)\n fun scroll(options: ScrollToOptions = definedExternally)\n
fun scroll(x: Double, y: Double)\n fun scrollTo(options: ScrollToOptions = definedExternally)\n
fun scrollTo(x: Double, y: Double)\n fun scrollBy(options: ScrollToOptions = definedExternally)\n fun
scrollBy(x: Double, y: Double)\n fun getComputedStyle(elt: Element, pseudoElt: String? = definedExternally):
CSSStyleDeclaration\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun Window.get(name: String):
dynamic = asDynamic()[name]\n\npublic external abstract class BarProp {\n open val visible: Boolean\n}\n\n/**\n
* Exposes the JavaScript [History](https://developer.mozilla.org/en/docs/Web/API/History) to Kotlin\n */\npublic
external abstract class History {\n open val length: Int\n open var scrollRestoration: ScrollRestoration\n open
val state: Any?\n fun go(delta: Int = definedExternally)\n fun back()\n fun forward()\n fun pushState(data:
Any?, title: String, url: String? = definedExternally)\n fun replaceState(data: Any?, title: String, url: String? =
definedExternally)\n}\n\n/**\n
* Exposes the JavaScript [Location](https://developer.mozilla.org/en/docs/Web/API/Location) to Kotlin\n
*/\npublic external abstract class Location {\n open var href: String\n open val origin: String\n open var
protocol: String\n open var host: String\n open var hostname: String\n open var port: String\n open var
pathname: String\n open var search: String\n open var hash: String\n open val ancestorOrigins: Array<out
String>\n fun assign(url: String)\n fun replace(url: String)\n fun reload()\n}\n\n/**\n
* Exposes the JavaScript [PopStateEvent](https://developer.mozilla.org/en/docs/Web/API/PopStateEvent) to Kotlin\n
*/\npublic external
open class PopStateEvent(type: String, eventInitDict: PopStateEventInit = definedExternally) : Event {\n open val
state: Any?\n\n companion object {\n val NONE: Short\n val CAPTURING_PHASE: Short\n val

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AT_TARGET: Short\n    val BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface
PopStateEventInit : EventInit {\n    var state: Any? /* = null */\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun PopStateEventInit(state: Any? = null,
bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): PopStateEventInit {\n    val o
= js(\"({})\")\n    o[\"state\"] = state\n    o[\"bubbles\"] = bubbles\n    o[\"cancelable\"] = cancelable\n
o[\"composed\"] = composed\n    return o\n}\n\n/**\n * Exposes the JavaScript
[HashChangeEvent](https://developer.mozilla.org/en/docs/Web/API/HashChangeEvent) to Kotlin\n */\n\npublic
external open class HashChangeEvent(type: String, eventInitDict: HashChangeEventInit = definedExternally) :
Event {\n    open val oldURL: String\n    open val newURL: String\n\n    companion object {\n        val NONE:
Short\n        val CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n
        val BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface HashChangeEventInit : EventInit {\n
var oldURL: String? /* = \"\" */\n    get() = definedExternally\n    set(value) = definedExternally\n    var
newURL: String? /* = \"\" */\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun HashChangeEventInit(oldURL:
String? = \"\", newURL: String? = \"\", bubbles: Boolean? = false, cancelable: Boolean? = false, composed:
Boolean? = false): HashChangeEventInit {\n    val o = js(\"({})\")\n    o[\"oldURL\"] = oldURL\n    o[\"newURL\"]
= newURL\n    o[\"bubbles\"] = bubbles\n    o[\"cancelable\"] = cancelable\n    o[\"composed\"] = composed\n
return o\n}\n\n/**\n * Exposes the JavaScript
[PageTransitionEvent](https://developer.mozilla.org/en/docs/Web/API/PageTransitionEvent) to Kotlin\n */\n\npublic
external open class PageTransitionEvent(type:
String, eventInitDict: PageTransitionEventInit = definedExternally) : Event {\n    open val persisted: Boolean\n\n
companion object {\n        val NONE: Short\n        val CAPTURING_PHASE: Short\n        val AT_TARGET:
Short\n        val BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface PageTransitionEventInit :
EventInit {\n    var persisted: Boolean? /* = false */\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun PageTransitionEventInit(persisted:
Boolean? = false, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false):
PageTransitionEventInit {\n    val o = js(\"({})\")\n    o[\"persisted\"] = persisted\n    o[\"bubbles\"] = bubbles\n
o[\"cancelable\"] = cancelable\n    o[\"composed\"] = composed\n    return o\n}\n\n/**\n * Exposes the JavaScript
[BeforeUnloadEvent](https://developer.mozilla.org/en/docs/Web/API/BeforeUnloadEvent)
to Kotlin\n */\n\npublic external open class BeforeUnloadEvent : Event {\n    var returnValue: String\n\n
companion object {\n        val NONE: Short\n        val CAPTURING_PHASE: Short\n        val AT_TARGET:
Short\n        val BUBBLING_PHASE: Short\n    }\n}\n\npublic external abstract class ApplicationCache :
EventTarget {\n    open val status: Short\n    open var onchecking: ((Event) -> dynamic)?\n    open var onerror:
((Event) -> dynamic)?\n    open var onnoupdate: ((Event) -> dynamic)?\n    open var ondownloading: ((Event) ->
dynamic)?\n    open var onprogress: ((ProgressEvent) -> dynamic)?\n    open var onupdateready: ((Event) ->
dynamic)?\n    open var oncached: ((Event) -> dynamic)?\n    open var onobsolete: ((Event) -> dynamic)?\n    fun
update()\n    fun abort()\n    fun swapCache()\n\n    companion object {\n        val UNCACHED: Short\n        val
IDLE: Short\n        val CHECKING: Short\n        val DOWNLOADING: Short\n        val UPDATEREADY:
Short\n        val OBSOLETE: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[NavigatorOnLine](https://developer.mozilla.org/en/docs/Web/API/NavigatorOnLine) to Kotlin\n */\n\npublic
external interface NavigatorOnLine {\n    val onLine: Boolean\n}\n\n/**\n * Exposes the JavaScript
[ErrorEvent](https://developer.mozilla.org/en/docs/Web/API/ErrorEvent) to Kotlin\n */\n\npublic external open class
ErrorEvent(type: String, eventInitDict: ErrorEventInit = definedExternally) : Event {\n    open val message: String\n
open val filename: String\n    open val lineno: Int\n    open val colno: Int\n    open val error: Any?\n\n    companion
object {\n        val NONE: Short\n        val CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n        val

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BUBBLING_PHASE: Short\n } \n\n\npublic external interface ErrorEventInit : EventInit {\n  var message:
String? /* = \"\" */\n  get() = definedExternally\n  set(value) = definedExternally\n  var filename: String? /*
= \"\"
*/\n  get() = definedExternally\n  set(value) = definedExternally\n  var lineno: Int? /* = 0 */\n  get() =
definedExternally\n  set(value) = definedExternally\n  var colno: Int? /* = 0 */\n  get() =
definedExternally\n  set(value) = definedExternally\n  var error: Any? /* = null */\n  get() =
definedExternally\n  set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ErrorEventInit(message: String? = \"\",
filename: String? = \"\", lineno: Int? = 0, colno: Int? = 0, error: Any? = null, bubbles: Boolean? = false, cancelable:
Boolean? = false, composed: Boolean? = false): ErrorEventInit {\n  val o = js(\"({})\")\n  o[\"message\"] =
message\n  o[\"filename\"] = filename\n  o[\"lineno\"] = lineno\n  o[\"colno\"] = colno\n  o[\"error\"] = error\n  o[\"bubbles\"] = bubbles\n  o[\"cancelable\"] = cancelable\n  o[\"composed\"] = composed\n
return o\n}\n\n/**\n * Exposes the JavaScript
[PromiseRejectionEvent](https://developer.mozilla.org/en/docs/Web/API/PromiseRejectionEvent) to Kotlin\n
*/\n\npublic external open class PromiseRejectionEvent(type: String, eventInitDict: PromiseRejectionEventInit) :
Event {\n  open val promise: Promise<Any?>\n  open val reason: Any?\n  companion object {\n    val
NONE: Short\n    val CAPTURING_PHASE: Short\n    val AT_TARGET: Short\n    val
BUBBLING_PHASE: Short\n  }\n\n\npublic external interface PromiseRejectionEventInit : EventInit {\n  var
promise: Promise<Any?>?\n  var reason: Any?\n  get() = definedExternally\n  set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun PromiseRejectionEventInit(promise:
Promise<Any?>?, reason: Any? = undefined, bubbles: Boolean? = false, cancelable: Boolean? = false, composed:
Boolean? = false): PromiseRejectionEventInit
{\n  val o = js(\"({})\")\n  o[\"promise\"] = promise\n  o[\"reason\"] = reason\n  o[\"bubbles\"] = bubbles\n
o[\"cancelable\"] = cancelable\n  o[\"composed\"] = composed\n  return o\n}\n\n/**\n * Exposes the JavaScript
[GlobalEventHandlers](https://developer.mozilla.org/en/docs/Web/API/GlobalEventHandlers) to Kotlin\n
*/\n\npublic external interface GlobalEventHandlers {\n  var onabort: ((Event) -> dynamic)?\n  get() =
definedExternally\n  set(value) = definedExternally\n  var onblur: ((FocusEvent) -> dynamic)?\n  get() =
definedExternally\n  set(value) = definedExternally\n  var oncancel: ((Event) -> dynamic)?\n  get() =
definedExternally\n  set(value) = definedExternally\n  var oncanplay: ((Event) -> dynamic)?\n  get() =
definedExternally\n  set(value) = definedExternally\n  var oncanplaythrough: ((Event) -> dynamic)?\n  get()
= definedExternally\n  set(value) = definedExternally\n  var onchange:
((Event) -> dynamic)?\n  get() = definedExternally\n  set(value) = definedExternally\n  var onclick:
((MouseEvent) -> dynamic)?\n  get() = definedExternally\n  set(value) = definedExternally\n  var onclose:
((Event) -> dynamic)?\n  get() = definedExternally\n  set(value) = definedExternally\n  var oncontextmenu:
((MouseEvent) -> dynamic)?\n  get() = definedExternally\n  set(value) = definedExternally\n  var
oncuechange: ((Event) -> dynamic)?\n  get() = definedExternally\n  set(value) = definedExternally\n  var
ondblclick: ((MouseEvent) -> dynamic)?\n  get() = definedExternally\n  set(value) = definedExternally\n
var ondrag: ((DragEvent) -> dynamic)?\n  get() = definedExternally\n  set(value) = definedExternally\n  var
ondragend: ((DragEvent) -> dynamic)?\n  get() = definedExternally\n  set(value) = definedExternally\n  var
ondragenter: ((DragEvent) -> dynamic)?\n  get()
= definedExternally\n  set(value) = definedExternally\n  var ondragexit: ((DragEvent) -> dynamic)?\n
get() = definedExternally\n  set(value) = definedExternally\n  var ondragleave: ((DragEvent) -> dynamic)?\n
get() = definedExternally\n  set(value) = definedExternally\n  var ondragover: ((DragEvent) -> dynamic)?\n
get() = definedExternally\n  set(value) = definedExternally\n  var ondragstart: ((DragEvent) -> dynamic)?\n
get() = definedExternally\n  set(value) = definedExternally\n  var ondrop: ((DragEvent) -> dynamic)?\n
get() = definedExternally\n  set(value) = definedExternally\n  var ondurationchange: ((Event) -> dynamic)?\n
get() = definedExternally\n  set(value) = definedExternally\n  var onemptied: ((Event) -> dynamic)?\n

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get() = definedExternally\n    set(value) = definedExternally\n    var onended: ((Event) -> dynamic)?\n    get() =
definedExternally\n    set(value)
= definedExternally\n    var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var onfocus: ((FocusEvent) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var oninput: ((InputEvent) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var oninvalid: ((Event) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var onkeydown: ((KeyboardEvent) -> dynamic)?\n
get() = definedExternally\n    set(value) = definedExternally\n    var onkeypress: ((KeyboardEvent) ->
dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n    var onkeyup: ((KeyboardEvent)
-> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n    var onload: ((Event) ->
dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n
    var onloadeddata: ((Event) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n
var onloadedmetadata: ((Event) -> dynamic)?\n    get() = definedExternally\n    set(value) =
definedExternally\n    var onloadend: ((Event) -> dynamic)?\n    get() = definedExternally\n    set(value) =
definedExternally\n    var onloadstart: ((ProgressEvent) -> dynamic)?\n    get() = definedExternally\n
set(value) = definedExternally\n    var onmousedown: ((MouseEvent) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var onmouseenter: ((MouseEvent) -> dynamic)?\n
get() = definedExternally\n    set(value) = definedExternally\n    var onmouseleave: ((MouseEvent) ->
dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n    var onmousemove:
((MouseEvent) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n
    var onmouseout: ((MouseEvent) -> dynamic)?\n    get() = definedExternally\n    set(value) =
definedExternally\n    var onmouseover: ((MouseEvent) -> dynamic)?\n    get() = definedExternally\n
set(value) = definedExternally\n    var onmouseup: ((MouseEvent) -> dynamic)?\n    get() = definedExternally\n
    set(value) = definedExternally\n    var onwheel: ((WheelEvent) -> dynamic)?\n    get() = definedExternally\n
set(value) = definedExternally\n    var onpause: ((Event) -> dynamic)?\n    get() = definedExternally\n
set(value) = definedExternally\n    var onplay: ((Event) -> dynamic)?\n    get() = definedExternally\n
set(value) = definedExternally\n    var onplaying: ((Event) -> dynamic)?\n    get() = definedExternally\n
set(value) = definedExternally\n    var onprogress: ((ProgressEvent) -> dynamic)?\n    get() = definedExternally\n
    set(value) = definedExternally\n    var onratechange: ((Event) -> dynamic)?\n
    get() = definedExternally\n    set(value) = definedExternally\n    var onreset: ((Event) -> dynamic)?\n
get() = definedExternally\n    set(value) = definedExternally\n    var onresize: ((Event) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var onscroll: ((Event) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var onseeked: ((Event) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var onseeking: ((Event) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var onselect: ((Event) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var onshow: ((Event) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var onstalled: ((Event) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n
    var onsubmit: ((Event) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n    var
onsuspend: ((Event) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n    var
ontimeupdate: ((Event) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n    var
ontoggle: ((Event) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n    var
onvolumechange: ((Event) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n
var onwaiting: ((Event) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n    var
ongotpointercapture: ((PointerEvent) -> dynamic)?\n    get() = definedExternally\n    set(value) =
definedExternally\n    var onlostpointercapture: ((PointerEvent) -> dynamic)?\n    get() = definedExternally\n
set(value) = definedExternally\n    var onpointerdown:

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((PointerEvent) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n    var
onpointermove: ((PointerEvent) -> dynamic)?\n    get() = definedExternally\n    set(value) =
definedExternally\n    var onpointerup: ((PointerEvent) -> dynamic)?\n    get() = definedExternally\n
set(value) = definedExternally\n    var onpointercancel: ((PointerEvent) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var onpointerover: ((PointerEvent) -> dynamic)?\n
get() = definedExternally\n    set(value) = definedExternally\n    var onpointerout: ((PointerEvent) -> dynamic)?\n
get() = definedExternally\n    set(value) = definedExternally\n    var onpointerenter: ((PointerEvent) ->
dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n    var onpointerleave:
((PointerEvent) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n}\n\n/**\n
* Exposes the JavaScript

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[WindowEventHandlers](https://developer.mozilla.org/en/docs/Web/API/WindowEventHandlers) to Kotlin\n
*\n\npublic external interface WindowEventHandlers {\n    var onafterprint: ((Event) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var onbeforeprint: ((Event) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var onbeforeunload: ((BeforeUnloadEvent) ->
String?)?\n    get() = definedExternally\n    set(value) = definedExternally\n    var onhashchange:
((HashChangeEvent) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n    var
onlanguagechange: ((Event) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n
var onmessage: ((MessageEvent) -> dynamic)?\n    get() = definedExternally\n    set(value) =
definedExternally\n    var onoffline: ((Event) -> dynamic)?\n
get() = definedExternally\n    set(value) = definedExternally\n    var ononline: ((Event) -> dynamic)?\n
get() = definedExternally\n    set(value) = definedExternally\n    var onpagehide: ((PageTransitionEvent) ->
dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n    var onpageshow:
((PageTransitionEvent) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n    var
onpopstate: ((PopStateEvent) -> dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n
var onrejectionhandled: ((Event) -> dynamic)?\n    get() = definedExternally\n    set(value) =
definedExternally\n    var onstorage: ((StorageEvent) -> dynamic)?\n    get() = definedExternally\n    set(value)
= definedExternally\n    var onunhandledrejection: ((PromiseRejectionEvent) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var onunload: ((Event) ->
dynamic)?\n    get() = definedExternally\n    set(value) = definedExternally\n}\n\npublic external interface
DocumentAndElementEventHandlers {\n    var oncopy: ((ClipboardEvent) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var oncut: ((ClipboardEvent) -> dynamic)?\n    get() =
definedExternally\n    set(value) = definedExternally\n    var onpaste: ((ClipboardEvent) -> dynamic)?\n    get()
= definedExternally\n    set(value) = definedExternally\n}\n\n/**\n
* Exposes the JavaScript

```

```

[WindowOrWorkerGlobalScope](https://developer.mozilla.org/en/docs/Web/API/WindowOrWorkerGlobalScope)
to Kotlin\n
*\n\npublic external interface WindowOrWorkerGlobalScope {\n    val origin: String\n    val caches:
CacheStorage\n    fun btoa(data: String): String\n    fun atob(data: String): String\n    fun setTimeout(handler:
dynamic, timeout: Int = definedExternally, vararg arguments: Any?): Int\n    fun clearTimeout(handle: Int =
definedExternally)\n
    fun setInterval(handler: dynamic, timeout: Int = definedExternally, vararg arguments: Any?): Int\n    fun
clearInterval(handle: Int = definedExternally)\n    fun createImageBitmap(image: ImageBitmapSource, options:
ImageBitmapOptions = definedExternally): Promise<ImageBitmap>\n    fun createImageBitmap(image:
ImageBitmapSource, sx: Int, sy: Int, sw: Int, sh: Int, options: ImageBitmapOptions = definedExternally):
Promise<ImageBitmap>\n    fun fetch(input: dynamic, init: RequestInit = definedExternally):
Promise<Response>\n}\n\n/**\n
* Exposes the JavaScript

```

```

[Navigator](https://developer.mozilla.org/en/docs/Web/API/Navigator) to Kotlin\n
*\n\npublic external abstract class Navigator : NavigatorID, NavigatorLanguage, NavigatorOnLine, NavigatorContentUtils, NavigatorCookies,
NavigatorPlugins, NavigatorConcurrentHardware {\n    open val clipboard: Clipboard\n    open val mediaDevices:
MediaDevices\n    open val maxTouchPoints: Int\n    open val serviceWorker: ServiceWorkerContainer\n

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fun requestMediaKeySystemAccess(keySystem: String, supportedConfigurations:
Array<MediaKeySystemConfiguration>): Promise<MediaKeySystemAccess>\n fun getUserMedia(constraints:
MediaStreamConstraints, successCallback: (MediaStream) -> Unit, errorCallback: (dynamic) -> Unit)\n fun
vibrate(pattern: dynamic): Boolean\n}\n\n/**\n * Exposes the JavaScript
[NavigatorID](https://developer.mozilla.org/en/docs/Web/API/NavigatorID) to Kotlin\n *\npublic external interface
NavigatorID {\n val appCodeName: String\n val appName: String\n val appVersion: String\n val platform:
String\n val product: String\n val productSub: String\n val userAgent: String\n val vendor: String\n val
vendorSub: String\n val oscpu: String\n fun taintEnabled(): Boolean\n}\n\n/**\n * Exposes the JavaScript
[NavigatorLanguage](https://developer.mozilla.org/en/docs/Web/API/NavigatorLanguage) to Kotlin\n *\npublic
external interface NavigatorLanguage {\n val language: String\n
val languages: Array<out String>\n}\n\npublic external interface NavigatorContentUtils {\n fun
registerProtocolHandler(scheme: String, url: String, title: String)\n fun registerContentHandler(mimeType: String,
url: String, title: String)\n fun isProtocolHandlerRegistered(scheme: String, url: String): String\n fun
isContentHandlerRegistered(mimeType: String, url: String): String\n fun unregisterProtocolHandler(scheme:
String, url: String)\n fun unregisterContentHandler(mimeType: String, url: String)\n}\n\npublic external interface
NavigatorCookies {\n val cookieEnabled: Boolean\n}\n\n/**\n * Exposes the JavaScript
[NavigatorPlugins](https://developer.mozilla.org/en/docs/Web/API/NavigatorPlugins) to Kotlin\n *\npublic
external interface NavigatorPlugins {\n val plugins: PluginArray\n val mimeTypes: MimeTypeArray\n fun
javaEnabled(): Boolean\n}\n\n/**\n * Exposes the JavaScript
[PluginArray](https://developer.mozilla.org/en/docs/Web/API/PluginArray) to
Kotlin\n *\npublic external abstract class PluginArray : ItemArrayLike<Plugin> {\n fun refresh(reload: Boolean
= definedExternally)\n override fun item(index: Int): Plugin?\n fun namedItem(name: String):
Plugin?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun PluginArray.get(index: Int):
Plugin? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun PluginArray.get(name:
String): Plugin? = asDynamic()[name]\n\n/**\n * Exposes the JavaScript
[MimeTypeArray](https://developer.mozilla.org/en/docs/Web/API/MimeTypeArray) to Kotlin\n *\npublic external
abstract class MimeTypeArray : ItemArrayLike<MimeType> {\n override fun item(index: Int): MimeType?\n
fun namedItem(name: String): MimeType?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun MimeTypeArray.get(index:
Int): MimeType? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun MimeTypeArray.get(name:
String): MimeType? = asDynamic()[name]\n\n/**\n * Exposes the JavaScript
[Plugin](https://developer.mozilla.org/en/docs/Web/API/Plugin) to Kotlin\n *\npublic external abstract class Plugin
: ItemArrayLike<MimeType> {\n open val name: String\n open val description: String\n open val filename:
String\n override fun item(index: Int): MimeType?\n fun namedItem(name: String):
MimeType?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Plugin.get(index: Int):
MimeType? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Plugin.get(name: String):
MimeType? = asDynamic()[name]\n\n/**\n * Exposes the JavaScript
[MimeType](https://developer.mozilla.org/en/docs/Web/API/MimeType)
to Kotlin\n *\npublic external abstract class MimeType {\n open val type: String\n open val description:
String\n open val suffixes: String\n open val enabledPlugin: Plugin\n}\n\n/**\n * Exposes the JavaScript
[ImageBitmap](https://developer.mozilla.org/en/docs/Web/API/ImageBitmap) to Kotlin\n *\npublic external
abstract class ImageBitmap : CanvasImageSource, TexImageSource {\n open val width: Int\n open val height:
Int\n fun close()\n}\n\npublic external interface ImageBitmapOptions {\n var imageOrientation:

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ImageOrientation? /* = ImageOrientation.NONE */\n    get() = definedExternally\n    set(value) =
definedExternally\n    var premultiplyAlpha: PremultiplyAlpha? /* = PremultiplyAlpha.DEFAULT */\n    get() =
definedExternally\n    set(value) = definedExternally\n    var colorSpaceConversion: ColorSpaceConversion? /* =
ColorSpaceConversion.DEFAULT */\n    get() = definedExternally\n    set(value)
= definedExternally\n    var resizeMode: Int?\n    get() = definedExternally\n    set(value) =
definedExternally\n    var resizeMode: Int?\n    get() = definedExternally\n    set(value) = definedExternally\n
var resizeMode: ResizeQuality? /* = ResizeQuality.LOW */\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun
ImageBitmapOptions(imageOrientation: ImageOrientation? = ImageOrientation.NONE, premultiplyAlpha:
PremultiplyAlpha? = PremultiplyAlpha.DEFAULT, colorSpaceConversion: ColorSpaceConversion? =
ColorSpaceConversion.DEFAULT, resizeMode: Int? = undefined, resizeMode: Int? = undefined, resizeMode:
ResizeQuality? = ResizeQuality.LOW): ImageBitmapOptions {\n    val o = js("{}")\n    o["imageOrientation"]
= imageOrientation\n    o["premultiplyAlpha"] = premultiplyAlpha\n    o["colorSpaceConversion"] =
colorSpaceConversion\n
    o["resizeWidth"] = resizeMode\n    o["resizeHeight"] = resizeMode\n    o["resizeQuality"] = resizeMode\n
return o\n}\n\n/**\n * Exposes the JavaScript
[MessageEvent](https://developer.mozilla.org/en/docs/Web/API/MessageEvent) to Kotlin\n */\n\npublic external open
class MessageEvent(type: String, eventInitDict: MessageEventInit = definedExternally) : Event {\n    open val data:
Any?\n    open val origin: String\n    open val lastEventId: String\n    open val source:
UnionMessagePortOrWindowProxy?\n    open val ports: Array<out MessagePort>\n    fun initMessageEvent(type:
String, bubbles: Boolean, cancelable: Boolean, data: Any?, origin: String, lastEventId: String, source:
UnionMessagePortOrWindowProxy?, ports: Array<MessagePort>)\n\n    companion object {\n        val NONE:
Short\n        val CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n        val BUBBLING_PHASE:
Short\n    }\n}\n\npublic external interface MessageEventInit : EventInit {\n    var
data: Any? /* = null */\n    get() = definedExternally\n    set(value) = definedExternally\n    var origin: String?
/* = "" */\n    get() = definedExternally\n    set(value) = definedExternally\n    var lastEventId: String? /* =
"" */\n    get() = definedExternally\n    set(value) = definedExternally\n    var source:
UnionMessagePortOrWindowProxy? /* = null */\n    get() = definedExternally\n    set(value) =
definedExternally\n    var ports: Array<MessagePort>? /* = arrayOf() */\n    get() = definedExternally\n
set(value) = definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun MessageEventInit(data: Any? = null,
origin: String? = "", lastEventId: String? = "", source: UnionMessagePortOrWindowProxy? = null, ports:
Array<MessagePort>? = arrayOf(), bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? =
false): MessageEventInit {\n    val o
= js("{}")\n    o["data"] = data\n    o["origin"] = origin\n    o["lastEventId"] = lastEventId\n    o["source"] =
source\n    o["ports"] = ports\n    o["bubbles"] = bubbles\n    o["cancelable"] = cancelable\n    o["composed"] =
composed\n    return o\n}\n\n/**\n * Exposes the JavaScript
[EventSource](https://developer.mozilla.org/en/docs/Web/API/EventSource) to Kotlin\n */\n\npublic external open
class EventSource(url: String, eventSourceInitDict: EventSourceInit = definedExternally) : EventTarget {\n    open
val url: String\n    open val withCredentials: Boolean\n    open val readyState: Short\n    var onopen: ((Event) ->
dynamic)?\n    var onmessage: ((MessageEvent) -> dynamic)?\n    var onerror: ((Event) -> dynamic)?\n    fun
close()\n\n    companion object {\n        val CONNECTING: Short\n        val OPEN: Short\n        val CLOSED:
Short\n    }\n}\n\npublic external interface EventSourceInit {\n    var withCredentials: Boolean? /* = false */\n
get() = definedExternally\n
set(value) = definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun EventSourceInit(withCredentials:
Boolean? = false): EventSourceInit {\n    val o = js("{}")\n    o["withCredentials"] = withCredentials\n    return

```



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o\n}\n\n/**\n * Exposes the JavaScript [WebSocket](https://developer.mozilla.org/en/docs/Web/API/WebSocket) to
Kotlin\n *\npublic external open class WebSocket(url: String, protocols: dynamic = definedExternally) :
EventTarget {\n  open val url: String\n  open val readyState: Short\n  open val bufferedAmount: Number\n  var
onopen: ((Event) -> dynamic)?\n  var onerror: ((Event) -> dynamic)?\n  var onclose: ((Event) -> dynamic)?\n
open val extensions: String\n  open val protocol: String\n  var onmessage: ((MessageEvent) -> dynamic)?\n  var
binaryType: BinaryType\n  fun close(code: Short = definedExternally, reason: String = definedExternally)\n  fun
send(data: String)\n  fun send(data: Blob)\n  fun send(data: ArrayBuffer)\n  fun send(data:
ArrayBufferView)\n\n  companion object {\n    val CONNECTING: Short\n    val OPEN: Short\n    val
CLOSING: Short\n    val CLOSED: Short\n  }\n}\n\n/**\n * Exposes the JavaScript
[CloseEvent](https://developer.mozilla.org/en/docs/Web/API/CloseEvent) to Kotlin\n *\npublic external open class
CloseEvent(type: String, eventInitDict: CloseEventInit = definedExternally) : Event {\n  open val wasClean:
Boolean\n  open val code: Short\n  open val reason: String\n\n  companion object {\n    val NONE: Short\n
val CAPTURING_PHASE: Short\n    val AT_TARGET: Short\n    val BUBBLING_PHASE: Short\n
}\n}\n\npublic external interface CloseEventInit : EventInit {\n  var wasClean: Boolean? /* = false *\n  get() =
definedExternally\n  set(value) = definedExternally\n  var code: Short? /* = 0 *\n  get() =
definedExternally\n  set(value)
= definedExternally\n  var reason: String? /* = \"\" *\n  get() = definedExternally\n  set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun CloseEventInit(wasClean: Boolean? =
false, code: Short? = 0, reason: String? = \"\", bubbles: Boolean? = false, cancelable: Boolean? = false, composed:
Boolean? = false): CloseEventInit {\n  val o = js(\"({})\")\n  o[\"wasClean\"] = wasClean\n  o[\"code\"] = code\n
o[\"reason\"] = reason\n  o[\"bubbles\"] = bubbles\n  o[\"cancelable\"] = cancelable\n  o[\"composed\"] =
composed\n  return o\n}\n\n/**\n * Exposes the JavaScript
[MessageChannel](https://developer.mozilla.org/en/docs/Web/API/MessageChannel) to Kotlin\n *\npublic external
open class MessageChannel {\n  open val port1: MessagePort\n  open val port2: MessagePort\n}\n\n/**\n *
Exposes the JavaScript [MessagePort](https://developer.mozilla.org/en/docs/Web/API/MessagePort)
to Kotlin\n *\npublic external abstract class MessagePort : EventTarget, UnionMessagePortOrWindowProxy,
UnionMessagePortOrServiceWorker, UnionClientOrMessagePortOrServiceWorker {\n  open var onmessage:
((MessageEvent) -> dynamic)?\n  fun postMessage(message: Any?, transfer: Array<dynamic> =
definedExternally)\n  fun start()\n  fun close()\n}\n\n/**\n * Exposes the JavaScript
[BroadcastChannel](https://developer.mozilla.org/en/docs/Web/API/BroadcastChannel) to Kotlin\n *\npublic
external open class BroadcastChannel(name: String) : EventTarget {\n  open val name: String\n  var onmessage:
((MessageEvent) -> dynamic)?\n  fun postMessage(message: Any?)\n  fun close()\n}\n\n/**\n * Exposes the
JavaScript [WorkerGlobalScope](https://developer.mozilla.org/en/docs/Web/API/WorkerGlobalScope) to Kotlin\n
*\npublic external abstract class WorkerGlobalScope : EventTarget, WindowOrWorkerGlobalScope,
GlobalPerformance {\n  open val self: WorkerGlobalScope\n  open
val location: WorkerLocation\n  open val navigator: WorkerNavigator\n  open var onerror: ((dynamic, String, Int,
Int, Any?) -> dynamic)?\n  open var onlanguagechange: ((Event) -> dynamic)?\n  open var onoffline: ((Event) ->
dynamic)?\n  open var online: ((Event) -> dynamic)?\n  open var onrejectionhandled: ((Event) -> dynamic)?\n
open var onunhandledrejection: ((PromiseRejectionEvent) -> dynamic)?\n  fun importScripts(vararg urls:
String)\n}\n\n/**\n * Exposes the JavaScript
[DedicatedWorkerGlobalScope](https://developer.mozilla.org/en/docs/Web/API/DedicatedWorkerGlobalScope) to
Kotlin\n *\npublic external abstract class DedicatedWorkerGlobalScope : WorkerGlobalScope {\n  open var
onmessage: ((MessageEvent) -> dynamic)?\n  fun postMessage(message: Any?, transfer: Array<dynamic> =
definedExternally)\n  fun close()\n}\n\n/**\n * Exposes the JavaScript
[SharedWorkerGlobalScope](https://developer.mozilla.org/en/docs/Web/API/SharedWorkerGlobalScope) to
Kotlin\n *\npublic

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external abstract class SharedWorkerGlobalScope : WorkerGlobalScope {
    open val name: String
    open val applicationCache: ApplicationCache
    open var onconnect: ((Event) -> dynamic)?
    fun close()
}

Exposes the JavaScript [AbstractWorker](https://developer.mozilla.org/en/docs/Web/API/AbstractWorker) to Kotlin
public external interface AbstractWorker {
    var onerror: ((Event) -> dynamic)?
    get() = definedExternally
    set(value) = definedExternally
}

Exposes the JavaScript [Worker](https://developer.mozilla.org/en/docs/Web/API/Worker) to Kotlin
public external open class Worker(scriptURL: String, options: WorkerOptions = definedExternally) : EventTarget, AbstractWorker {
    var onmessage: ((MessageEvent) -> dynamic)?
    override var onerror: ((Event) -> dynamic)?
    fun terminate()
    fun postMessage(message: Any?, transfer: Array<dynamic> = definedExternally)
}

public external interface WorkerOptions {
    var type: WorkerType? /* = WorkerType.CLASSIC */
    get() = definedExternally
    set(value) = definedExternally
    var credentials: RequestCredentials? /* = RequestCredentials.OMIT */
    get() = definedExternally
    set(value) = definedExternally
}

@Suppress("INVISIBLE_REFERENCE", "INVISIBLE_MEMBER")
@kotlin.internal.InlineOnly
public inline fun WorkerOptions(type: WorkerType? = WorkerType.CLASSIC, credentials: RequestCredentials? = RequestCredentials.OMIT): WorkerOptions {
    val o = js("{}")
    o["type"] = type
    o["credentials"] = credentials
    return o
}

Exposes the JavaScript [SharedWorker](https://developer.mozilla.org/en/docs/Web/API/SharedWorker) to Kotlin
public external open class SharedWorker(scriptURL: String, name: String = definedExternally, options: WorkerOptions = definedExternally) : EventTarget, AbstractWorker {
    open val port: MessagePort
    override var onerror: ((Event) -> dynamic)?
}

* Exposes the JavaScript [NavigatorConcurrentHardware](https://developer.mozilla.org/en/docs/Web/API/NavigatorConcurrentHardware) to Kotlin
public external interface NavigatorConcurrentHardware {
    val hardwareConcurrency: Number
}

Exposes the JavaScript [WorkerNavigator](https://developer.mozilla.org/en/docs/Web/API/WorkerNavigator) to Kotlin
public external abstract class WorkerNavigator : NavigatorID, NavigatorLanguage, NavigatorOnLine, NavigatorConcurrentHardware {
    open val serviceWorker: ServiceWorkerContainer
}

Exposes the JavaScript [WorkerLocation](https://developer.mozilla.org/en/docs/Web/API/WorkerLocation) to Kotlin
public external abstract class WorkerLocation {
    open val href: String
    open val origin: String
    open val protocol: String
    open val host: String
    open val hostname: String
    open val port: String
    open val pathname: String
    open val search: String
    open val hash: String
}

Exposes the JavaScript [Storage](https://developer.mozilla.org/en/docs/Web/API/Storage) to Kotlin
public external abstract class Storage {
    open val length: Int
    fun key(index: Int): String?
    fun removeItem(key: String)
    fun clear()
    fun getItem(key: String): String?
    fun setItem(key: String, value: String)
}

@Suppress("INVISIBLE_REFERENCE", "INVISIBLE_MEMBER")
@kotlin.internal.InlineOnly
public inline operator fun Storage.get(key: String): String? = asDynamic()[key]

@Suppress("INVISIBLE_REFERENCE", "INVISIBLE_MEMBER")
@kotlin.internal.InlineOnly
public inline operator fun Storage.set(key: String, value: String) { asDynamic()[key] = value }

Exposes the JavaScript [WindowSessionStorage](https://developer.mozilla.org/en/docs/Web/API/WindowSessionStorage) to Kotlin
public external interface WindowSessionStorage {
    val sessionStorage: Storage
}

Exposes the JavaScript [WindowLocalStorage](https://developer.mozilla.org/en/docs/Web/API/WindowLocalStorage) to Kotlin
public external interface WindowLocalStorage {
    val localStorage: Storage
}

Exposes the JavaScript [StorageEvent](https://developer.mozilla.org/en/docs/Web/API/StorageEvent) to Kotlin
public external open class StorageEvent(type: String, eventInitDict: StorageEventInit = definedExternally) : Event {
    open val key: String?
    open val oldValue: String?
    open val newValue: String?
    open val url: String
    open val storageArea: Storage?
}

companion object {
    val NONE: Short
    val CAPTURING_PHASE: Short
    val AT_TARGET: Short
    val BUBBLING_PHASE: Short
}

```

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}\n\npublic external interface StorageEventInit : EventInit {\n    var key: String? /* = null */\n        get() = definedExternally\n        set(value) = definedExternally\n    var oldValue: String? /* = null */\n        get() = definedExternally\n        set(value) = definedExternally\n    var newValue: String? /* = null */\n        get() = definedExternally\n        set(value) = definedExternally\n    var url: String? /* = \"\" */\n        get() = definedExternally\n        set(value) = definedExternally\n    var storageArea: Storage? /* = null */\n        get() = definedExternally\n        set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun StorageEventInit(key: String? = null, oldValue: String? = null, newValue: String? = null, url: String? = \"\", storageArea: Storage? = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): StorageEventInit {\n    val o = js(\"({})\")\n    o[\"key\"] = key\n    o[\"oldValue\"] = oldValue\n    o[\"newValue\"] = newValue\n    o[\"url\"] = url\n    o[\"storageArea\"] = storageArea\n    o[\"bubbles\"] = bubbles\n    o[\"cancelable\"] = cancelable\n    o[\"composed\"] = composed\n    return o\n}\n\npublic external abstract class HTMLAppletElement : HTMLElement {\n    open var align: String\n    open var alt: String\n    open var archive: String\n    open var code: String\n    open var codeBase: String\n    open var height: String\n    open var hspace: Int\n    open var name: String\n    open var _object: String\n    open var vspace: Int\n    open var width: String\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript [HTMLMarqueeElement](https://developer.mozilla.org/en/docs/Web/API/HTMLMarqueeElement) to Kotlin\n */\npublic external abstract class HTMLMarqueeElement : HTMLElement {\n    open var behavior: String\n    open var bgColor: String\n    open var direction: String\n    open var height: String\n    open var hspace: Int\n    open var loop: Int\n    open var scrollAmount: Int\n    open var scrollDelay: Int\n    open var trueSpeed: Boolean\n    open var vspace: Int\n    open var width: String\n    open var onbounce: ((Event) -> dynamic)?\n    open var onfinish: ((Event) -> dynamic)?\n    open var onstart: ((Event) -> dynamic)?\n    fun start()\n    fun stop()\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript [HTMLFrameSetElement](https://developer.mozilla.org/en/docs/Web/API/HTMLFrameSetElement) to Kotlin\n */\npublic external abstract class HTMLFrameSetElement : HTMLElement, WindowEventHandlers {\n    open var cols: String\n    open var rows: String\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n    }

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PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\npublic external abstract class
HTMLFrameElement : HTMLElement {\n    open var name: String\n    open var scrolling: String\n    open var src:
String\n    open var frameBorder: String\n    open var longDesc: String\n    open var noResize: Boolean\n    open val
contentDocument: Document?\n    open
    val contentWindow: Window?\n    open var marginHeight: String\n    open var marginWidth: String\n\n
companion object {\n    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val
TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE:
Short\n    val ENTITY_NODE: Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val
COMMENT_NODE: Short\n    val DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n
    val DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\npublic external abstract class
HTMLDirectoryElement : HTMLElement {\n    open var compact: Boolean\n\n    companion
object {\n    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE:
Short\n    val CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val
ENTITY_NODE: Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE:
Short\n    val DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[HTMLFontElement](https://developer.mozilla.org/en/docs/Web/API/HTMLFontElement) to Kotlin\n *\n\npublic
external abstract class HTMLFontElement : HTMLElement {\n    open var color: String\n    open
var face: String\n    open var size: String\n\n    companion object {\n    val ELEMENT_NODE: Short\n    val
ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val
ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n    val
PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\npublic external interface External
{\n    fun AddSearchProvider()\n    fun IsSearchProviderInstalled()\n}\n\npublic external interface EventInit {\n
var bubbles: Boolean?

/* = false *\n    get() = definedExternally\n    set(value) = definedExternally\n    var cancelable: Boolean? /* =
false *\n    get() = definedExternally\n    set(value) = definedExternally\n    var composed: Boolean? /* = false
*\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",

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\ "INVISIBLE_MEMBER" )\n@kotlin.internal.InlineOnly\npublic inline fun EventInit(bubbles: Boolean? = false,
cancelable: Boolean? = false, composed: Boolean? = false): EventInit {\n    val o = js("{}")\n    o["bubbles"] =
bubbles\n    o["cancelable"] = cancelable\n    o["composed"] = composed\n    return o\n}\n\n/**\n * Exposes the
JavaScript [CustomEvent](https://developer.mozilla.org/en/docs/Web/API/CustomEvent) to Kotlin\n */\npublic
external open class CustomEvent(type: String, eventInitDict: CustomEventInit = definedExternally) : Event {\n
open val detail: Any?\n    fun initCustomEvent(type: String, bubbles:
Boolean, cancelable: Boolean, detail: Any?)\n\n    companion object {\n        val NONE: Short\n        val
CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n        val BUBBLING_PHASE: Short\n    }\n}\n\npublic
external interface CustomEventInit : EventInit {\n    var detail: Any? /* = null */\n    get() =
definedExternally\n    set(value) = definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun CustomEventInit(detail: Any? = null,
bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): CustomEventInit {\n    val o
= js("{}")\n    o["detail"] = detail\n    o["bubbles"] = bubbles\n    o["cancelable"] = cancelable\n
o["composed"] = composed\n    return o\n}\n\npublic external interface EventListenerOptions {\n    var capture:
Boolean? /* = false */\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun EventListenerOptions(capture:
Boolean? = false): EventListenerOptions {\n    val o = js("{}")\n    o["capture"] = capture\n    return
o\n}\n\npublic external interface AddEventListenerOptions : EventListenerOptions {\n    var passive: Boolean? /* =
false */\n    get() = definedExternally\n    set(value) = definedExternally\n    var once: Boolean? /* = false */\n
get() = definedExternally\n    set(value) = definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun AddEventListenerOptions(passive:
Boolean? = false, once: Boolean? = false, capture: Boolean? = false): AddEventListenerOptions {\n    val o =
js("{}")\n    o["passive"] = passive\n    o["once"] = once\n    o["capture"] = capture\n    return o\n}\n\npublic
external interface NonElementParentNode {\n    fun getElementById(elementId: String): Element?\n}\n\n/**\n *
Exposes the JavaScript
[DocumentOrShadowRoot](https://developer.mozilla.org/en/docs/Web/API/DocumentOrShadowRoot) to Kotlin\n */\n
public external interface DocumentOrShadowRoot {\n    val fullscreenElement: Element?\n    get() =
definedExternally\n}\n\n/**\n * Exposes the JavaScript
[ParentNode](https://developer.mozilla.org/en/docs/Web/API/ParentNode) to Kotlin\n */\npublic external interface
ParentNode {\n    val children: HTMLCollection\n    val firstElementChild: Element?\n    get() =
definedExternally\n    val lastElementChild: Element?\n    get() = definedExternally\n    val childElementCount:
Int\n    fun prepend(vararg nodes: dynamic)\n    fun append(vararg nodes: dynamic)\n    fun querySelector(selectors:
String): Element?\n    fun querySelectorAll(selectors: String): NodeList\n}\n\n/**\n * Exposes the JavaScript
[NonDocumentTypeChildNode](https://developer.mozilla.org/en/docs/Web/API/NonDocumentTypeChildNode) to
Kotlin\n */\npublic external interface
NonDocumentTypeChildNode {\n    val previousElementSibling: Element?\n    get() = definedExternally\n    val
nextElementSibling: Element?\n    get() = definedExternally\n}\n\n/**\n * Exposes the JavaScript
[ChildNode](https://developer.mozilla.org/en/docs/Web/API/ChildNode) to Kotlin\n */\npublic external interface
ChildNode {\n    fun before(vararg nodes: dynamic)\n    fun after(vararg nodes: dynamic)\n    fun
replaceWith(vararg nodes: dynamic)\n    fun remove()\n}\n\n/**\n * Exposes the JavaScript
[Slotable](https://developer.mozilla.org/en/docs/Web/API/Slotable) to Kotlin\n */\npublic external interface Slotable
{\n    val assignedSlot: HTMLSlotElement?\n    get() = definedExternally\n}\n\n/**\n * Exposes the JavaScript
[NodeList](https://developer.mozilla.org/en/docs/Web/API/NodeList) to Kotlin\n */\npublic external abstract class
NodeList : ItemArrayLike<Node> {\n    override fun item(index: Int):
Node?\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic

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inline operator fun NodeList.get(index: Int): Node? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript
[HTMLCollection](https://developer.mozilla.org/en/docs/Web/API/HTMLCollection) to Kotlin\n */\npublic
external abstract class HTMLCollection : ItemArrayLike<Element>, UnionElementOrHTMLCollection {\n
override fun item(index: Int): Element?\n fun namedItem(name: String):
Element?\n}\n\n@Suppress("\nINVISIBLE_REFERENCE",
"\nINVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun HTMLCollection.get(index:
Int): Element? = asDynamic()[index]\n\n@Suppress("\nINVISIBLE_REFERENCE",
"\nINVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun HTMLCollection.get(name:
String): Element? = asDynamic()[name]\n\n/**\n * Exposes the JavaScript
[MutationObserver](https://developer.mozilla.org/en/docs/Web/API/MutationObserver) to Kotlin\n */\npublic
external open class MutationObserver(callback: (Array<MutationRecord>,
MutationObserver) -> Unit) {\n fun observe(target: Node, options: MutationObserverInit = definedExternally)\n
fun disconnect()\n fun takeRecords(): Array<MutationRecord>\n}\n\n/**\n * Exposes the JavaScript
[MutationObserverInit](https://developer.mozilla.org/en/docs/Web/API/MutationObserverInit) to Kotlin\n
*/\npublic external interface MutationObserverInit {\n var childList: Boolean? /* = false */\n get() =
definedExternally\n set(value) = definedExternally\n var attributes: Boolean?\n get() =
definedExternally\n set(value) = definedExternally\n var characterData: Boolean?\n get() =
definedExternally\n set(value) = definedExternally\n var subtree: Boolean? /* = false */\n get() =
definedExternally\n set(value) = definedExternally\n var attributeOldValue: Boolean?\n get() =
definedExternally\n set(value) = definedExternally\n var characterDataOldValue: Boolean?\n get() =
definedExternally\n
set(value) = definedExternally\n var attributeFilter: Array<String>?\n get() = definedExternally\n
set(value) = definedExternally\n}\n\n@Suppress("\nINVISIBLE_REFERENCE",
"\nINVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun MutationObserverInit(childList:
Boolean? = false, attributes: Boolean? = undefined, characterData: Boolean? = undefined, subtree: Boolean? = false,
attributeOldValue: Boolean? = undefined, characterDataOldValue: Boolean? = undefined, attributeFilter:
Array<String>? = undefined): MutationObserverInit {\n val o = js("\n({})")\n o["childList"] = childList\n
o["attributes"] = attributes\n o["characterData"] = characterData\n o["subtree"] = subtree\n
o["attributeOldValue"] = attributeOldValue\n o["characterDataOldValue"] = characterDataOldValue\n
o["attributeFilter"] = attributeFilter\n return o\n}\n\n/**\n * Exposes the JavaScript
[MutationRecord](https://developer.mozilla.org/en/docs/Web/API/MutationRecord)
to Kotlin\n */\npublic external abstract class MutationRecord {\n open val type: String\n open val target:
Node\n open val addedNodes: NodeList\n open val removedNodes: NodeList\n open val previousSibling:
Node?\n open val nextSibling: Node?\n open val attributeName: String?\n open val attributeNamespace:
String?\n open val oldValue: String?\n}\n\n/**\n * Exposes the JavaScript
[Node](https://developer.mozilla.org/en/docs/Web/API/Node) to Kotlin\n */\npublic external abstract class Node :
EventTarget {\n open val nodeType: Short\n open val nodeName: String\n open val baseURI: String\n open
val isConnected: Boolean\n open val ownerDocument: Document?\n open val parentNode: Node?\n open val
parentElement: Element?\n open val childNodes: NodeList\n open val firstChild: Node?\n open val lastChild:
Node?\n open val previousSibling: Node?\n open val nextSibling: Node?\n open var nodeValue: String?\n
open var textContent: String?\n fun getRootNode(options: GetRootNodeOptions = definedExternally): Node\n
fun hasChildNodes(): Boolean\n fun normalize()\n fun cloneNode(deep: Boolean = definedExternally): Node\n
fun isEqualNode(otherNode: Node?): Boolean\n fun isSameNode(otherNode: Node?): Boolean\n fun
compareDocumentPosition(other: Node): Short\n fun contains(other: Node?): Boolean\n fun
lookupPrefix(namespace: String?): String?\n fun lookupNamespaceURI(prefix: String?): String?\n fun
isDefaultNamespace(namespace: String?): Boolean\n fun insertBefore(node: Node, child: Node?): Node\n fun
appendChild(node: Node): Node\n fun replaceChild(node: Node, child: Node): Node\n fun removeChild(child:
Node): Node\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE:

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Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val
ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n
    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n } \n \n public external interface
GetRootNodeOptions { \n    var composed: Boolean? /* = false */ \n    get() = definedExternally \n    set(value) =
definedExternally \n } \n \n @Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER") \n @kotlin.internal.InlineOnly \n public inline fun GetRootNodeOptions(composed:
Boolean? = false): GetRootNodeOptions { \n    val o = js("{}") \n    o["composed"] = composed \n    return
o \n } \n \n /** \n * Exposes the JavaScript
[Document](https://developer.mozilla.org/en/docs/Web/API/Document) to Kotlin \n */ \n public external open class
Document : Node, GlobalEventHandlers, DocumentAndElementEventHandlers, NonElementParentNode,
DocumentOrShadowRoot, ParentNode, GeometryUtils { \n    open val implementation: DOMImplementation \n
open val URL: String \n    open val documentURI: String \n    open val origin: String \n    open val compatMode:
String \n    open val characterSet: String \n    open val charset: String \n    open val inputEncoding: String \n
open val contentType: String \n    open val doctype: DocumentType? \n    open val documentElement: Element? \n
open val location: Location? \n    var domain: String \n    open val referrer: String \n    var cookie: String \n
open val lastModified: String \n    open val readyState: DocumentReadyState \n    var title: String \n    var dir: String \n
var body: HTMLElement? \n    open val head: HTMLHeadElement? \n    open val images: HTMLCollection \n    open val
embeds:
HTMLCollection \n    open val plugins: HTMLCollection \n    open val links: HTMLCollection \n    open val forms:
HTMLCollection \n    open val scripts: HTMLCollection \n    open val currentScript: HTMLScriptElement? \n
open val defaultView: Window? \n    open val activeElement: Element? \n    var designMode: String \n    var
onreadystatechange: ((Event) -> dynamic)? \n    var fgColor: String \n    var linkColor: String \n    var vlinkColor:
String \n    var alinkColor: String \n    var bgColor: String \n    open val anchors: HTMLCollection \n    open val
applets: HTMLCollection \n    open val all: HTMLAllCollection \n    open val scrollingElement: Element? \n    open
val styleSheets: StyleSheetList \n    open val rootElement: SVGSVGElement? \n    open val fullscreenEnabled:
Boolean \n    open val fullscreen: Boolean \n    var onfullscreenchange: ((Event) -> dynamic)? \n    var
onfullscreenerror: ((Event) -> dynamic)? \n    override var onabort: ((Event) -> dynamic)? \n    override var onblur:
((FocusEvent)
-> dynamic)? \n    override var onCancel: ((Event) -> dynamic)? \n    override var oncanplay: ((Event) -> dynamic)? \n
override var oncanplaythrough: ((Event) -> dynamic)? \n    override var onchange: ((Event) -> dynamic)? \n
override var onclick: ((MouseEvent) -> dynamic)? \n    override var onclose: ((Event) -> dynamic)? \n    override var
oncontextmenu: ((MouseEvent) -> dynamic)? \n    override var oncuechange: ((Event) -> dynamic)? \n    override var
ondblclick: ((MouseEvent) -> dynamic)? \n    override var ondrag: ((DragEvent) -> dynamic)? \n    override var
ondragend: ((DragEvent) -> dynamic)? \n    override var ondragenter: ((DragEvent) -> dynamic)? \n    override var
ondragexit: ((DragEvent) -> dynamic)? \n    override var ondragleave: ((DragEvent) -> dynamic)? \n    override var
ondragover: ((DragEvent) -> dynamic)? \n    override var ondragstart: ((DragEvent) -> dynamic)? \n    override var
ondrop: ((DragEvent) -> dynamic)? \n    override var ondurationchange: ((Event) -> dynamic)? \n
override var onemptied: ((Event) -> dynamic)? \n    override var onended: ((Event) -> dynamic)? \n    override var
onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)? \n    override var onfocus: ((FocusEvent) -> dynamic)? \n
override var oninput: ((InputEvent) -> dynamic)? \n    override var oninvalid: ((Event) -> dynamic)? \n    override var
onkeydown: ((KeyboardEvent) -> dynamic)? \n    override var onkeypress: ((KeyboardEvent) -> dynamic)? \n
override var onkeyup: ((KeyboardEvent) -> dynamic)? \n    override var onload: ((Event) -> dynamic)? \n    override

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var onloadeddata: ((Event) -> dynamic)?\n  override var onloadedmetadata: ((Event) -> dynamic)?\n  override var
onloadend: ((Event) -> dynamic)?\n  override var onloadstart: ((ProgressEvent) -> dynamic)?\n  override var
onmousedown: ((MouseEvent) -> dynamic)?\n  override var onmouseenter: ((MouseEvent) -> dynamic)?\n
override var onmouseleave: ((MouseEvent) -> dynamic)?\n  override var onmousemove: ((MouseEvent)
-> dynamic)?\n  override var onmouseout: ((MouseEvent) -> dynamic)?\n  override var onmouseover:
((MouseEvent) -> dynamic)?\n  override var onmouseup: ((MouseEvent) -> dynamic)?\n  override var onwheel:
((WheelEvent) -> dynamic)?\n  override var onpause: ((Event) -> dynamic)?\n  override var onplay: ((Event) ->
dynamic)?\n  override var onplaying: ((Event) -> dynamic)?\n  override var onprogress: ((ProgressEvent) ->
dynamic)?\n  override var onratechange: ((Event) -> dynamic)?\n  override var onreset: ((Event) -> dynamic)?\n
override var onresize: ((Event) -> dynamic)?\n  override var onscroll: ((Event) -> dynamic)?\n  override var
onseeked: ((Event) -> dynamic)?\n  override var onseeking: ((Event) -> dynamic)?\n  override var onselect:
((Event) -> dynamic)?\n  override var onshow: ((Event) -> dynamic)?\n  override var onstalled: ((Event) ->
dynamic)?\n  override var onsubmit: ((Event) -> dynamic)?\n  override var onsuspend: ((Event) -> dynamic)?\n
  override var ontimeupdate: ((Event) -> dynamic)?\n  override var ontoggle: ((Event) -> dynamic)?\n  override
var onvolumechange: ((Event) -> dynamic)?\n  override var onwaiting: ((Event) -> dynamic)?\n  override var
ongotpointercapture: ((PointerEvent) -> dynamic)?\n  override var onlostpointercapture: ((PointerEvent) ->
dynamic)?\n  override var onpointerdown: ((PointerEvent) -> dynamic)?\n  override var onpointermove:
((PointerEvent) -> dynamic)?\n  override var onpointerup: ((PointerEvent) -> dynamic)?\n  override var
onpointercancel: ((PointerEvent) -> dynamic)?\n  override var onpointerover: ((PointerEvent) -> dynamic)?\n
override var onpointerout: ((PointerEvent) -> dynamic)?\n  override var onpointerenter: ((PointerEvent) ->
dynamic)?\n  override var onpointerleave: ((PointerEvent) -> dynamic)?\n  override var oncopy:
((ClipboardEvent) -> dynamic)?\n  override var oncut: ((ClipboardEvent) -> dynamic)?\n  override var onpaste:
((ClipboardEvent)
-> dynamic)?\n  override val fullscreenElement: Element?\n  override val children: HTMLCollection\n  override
val firstElementChild: Element?\n  override val lastElementChild: Element?\n  override val childElementCount:
Int\n  fun getElementsByTagName(qualifiedName: String): HTMLCollection\n  fun
getElementsByTagNameNS(namespace: String?, localName: String): HTMLCollection\n  fun
getElementsByTagName(className: String): HTMLCollection\n  fun createElement(localName: String,
options: ElementCreationOptions = definedExternally): Element\n  fun createElementNS(namespace: String?,
qualifiedName: String, options: ElementCreationOptions = definedExternally): Element\n  fun
createDocumentFragment(): DocumentFragment\n  fun createTextNode(data: String): Text\n  fun
createCDATASection(data: String): CDATASection\n  fun createComment(data: String): Comment\n  fun
createProcessingInstruction(target: String, data: String): ProcessingInstruction\n  fun importNode(node:
Node, deep: Boolean = definedExternally): Node\n  fun adoptNode(node: Node): Node\n  fun
createAttribute(localName: String): Attr\n  fun createAttributeNS(namespace: String?, qualifiedName: String):
Attr\n  fun createEvent(`interface`: String): Event\n  fun createRange(): Range\n  fun createNodeIterator(root:
Node, whatToShow: Int = definedExternally, filter: NodeFilter? = definedExternally): NodeIterator\n  fun
createNodeIterator(root: Node, whatToShow: Int = definedExternally, filter: ((Node) -> Short)? =
definedExternally): NodeIterator\n  fun createTreeWalker(root: Node, whatToShow: Int = definedExternally, filter:
NodeFilter? = definedExternally): TreeWalker\n  fun createTreeWalker(root: Node, whatToShow: Int =
definedExternally, filter: ((Node) -> Short)? = definedExternally): TreeWalker\n  fun
getElementsByTagName(elementName: String): NodeList\n  fun open(type: String = definedExternally, replace:
String = definedExternally): Document\n  fun
open(url: String, name: String, features: String): Window\n  fun close()\n  fun write(vararg text: String)\n  fun
writeln(vararg text: String)\n  fun hasFocus(): Boolean\n  fun execCommand(commandId: String, showUI:
Boolean = definedExternally, value: String = definedExternally): Boolean\n  fun
queryCommandEnabled(commandId: String): Boolean\n  fun queryCommandIndeterm(commandId: String):
Boolean\n  fun queryCommandState(commandId: String): Boolean\n  fun queryCommandSupported(commandId:

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String): Boolean\n fun queryCommandValue(commandId: String): String\n fun clear()\n fun captureEvents()\n
fun releaseEvents()\n fun elementFromPoint(x: Double, y: Double): Element?\n fun elementsFromPoint(x:
Double, y: Double): Array<Element>\n fun caretPositionFromPoint(x: Double, y: Double): CaretPosition?\n fun
createTouch(view: Window, target: EventTarget, identifier: Int, pageX: Int, pageY: Int, screenX: Int, screenY: Int):
Touch\n fun createTouchList(vararg
touches: Touch): TouchList\n fun exitFullscreen(): Promise<Unit>\n override fun getElementById(elementId:
String): Element?\n override fun prepend(vararg nodes: dynamic)\n override fun append(vararg nodes:
dynamic)\n override fun querySelector(selectors: String): Element?\n override fun querySelectorAll(selectors:
String): NodeList\n override fun getBoxQuads(options: BoxQuadOptions /* = definedExternally */):
Array<DOMQuad>\n override fun convertQuadFromNode(quad: dynamic, from: dynamic, options:
ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n override fun convertRectFromNode(rect:
DOMRectReadOnly, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n
override fun convertPointFromNode(point: DOMPointInit, from: dynamic, options: ConvertCoordinateOptions /* =
definedExternally */): DOMPoint\n\n companion object {\n val ELEMENT_NODE: Short\n val
ATTRIBUTE_NODE: Short\n val TEXT_NODE:
Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val
ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE:
Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val
DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val
DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n
}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Document.get(name: String):
dynamic = asDynamic()[name]\n\n/**\n * Exposes the JavaScript
[XMLDocument](https://developer.mozilla.org/en/docs/Web/API/XMLDocument) to Kotlin\n */\npublic external
open class XMLDocument
: Document {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n
val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val
ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val
PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val
DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val
DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val
DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n\npublic external interface
ElementCreationOptions {\n var `is`: String?\n get() = definedExternally\n set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic
inline fun ElementCreationOptions(`is`: String? = undefined): ElementCreationOptions {\n val o = js(\"({})\")\n
o[\"is\"] = `is`\n return o\n}\n\n/**\n * Exposes the JavaScript
[DOMImplementation](https://developer.mozilla.org/en/docs/Web/API/DOMImplementation) to Kotlin\n */\npublic external abstract class DOMImplementation {\n fun createDocumentType(qualifiedName: String,
publicId: String, systemId: String): DocumentType\n fun createDocument(namespace: String?, qualifiedName:
String, doctype: DocumentType? = definedExternally): XMLDocument\n fun createHTMLDocument(title: String
= definedExternally): Document\n fun hasFeature(): Boolean\n}\n\n/**\n * Exposes the JavaScript

```

[DocumentType](https://developer.mozilla.org/en/docs/Web/API/DocumentType) to Kotlin `*\n\npublic external abstract class DocumentType : Node, ChildNode` {  
`\n open val name: String\n open val publicId: String\n open val systemId: String\n\n companion object` {  
`\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short` }  
`\n\n/**\n * Exposes the JavaScript [DocumentFragment](https://developer.mozilla.org/en/docs/Web/API/DocumentFragment) to Kotlin` `*\n\npublic external open class DocumentFragment : Node, NonElementParentNode, ParentNode` {  
`\n override val children: HTMLCollection\n override val firstElementChild: Element?\n override val lastElementChild: Element?\n override val childElementCount: Int\n override fun getElementById(elementId: String): Element?\n override fun prepend(vararg nodes: dynamic)\n override fun append(vararg nodes: dynamic)\n override fun querySelector(selectors: String): Element?\n override fun querySelectorAll(selectors: String): NodeList\n\n companion object` {  
`\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short` }  
`\n\n/**\n * Exposes the JavaScript [ShadowRoot](https://developer.mozilla.org/en/docs/Web/API/ShadowRoot) to Kotlin` `*\n\npublic external open class ShadowRoot : DocumentFragment, DocumentOrShadowRoot` {  
`\n open val mode: ShadowRootMode\n open val host: Element\n override val fullscreenElement: Element?\n\n companion object` {  
`\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short` }  
`\n\n/**\n * Exposes the JavaScript [Element](https://developer.mozilla.org/en/docs/Web/API/Element) to Kotlin` `*\n\npublic external abstract class Element : Node, ParentNode, NonDocumentTypeChildNode, ChildNode, Slotable, GeometryUtils, UnionElementOrHTMLCollection, UnionElementOrRadioNodeList, UnionElementOrMouseEvent, UnionElementOrProcessingInstruction` {  
`\n open val namespaceURI: String?\n open val prefix: String?\n open val localName: String\n open val tagName: String\n open var id: String\n open var className: String\n open val classList: DOMTokenList\n open var slot: String\n open val attributes: NamedNodeMap\n open val shadowRoot: ShadowRoot?\n open var scrollTop: Double\n open var scrollLeft: Double\n open val scrollWidth: Int\n open val scrollHeight: Int\n open val clientTop: Int\n open val clientLeft: Int\n open val`

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clientWidth: Int\n open val clientHeight: Int\n open var innerHTML: String\n open var outerHTML: String\n
fun hasAttributes(): Boolean\n fun getAttributeNames(): Array<String>\n fun getAttribute(qualifiedName:
String): String?\n fun getAttributeNS(namespace: String?, localName: String): String?\n fun
setAttribute(qualifiedName: String, value: String)\n fun setAttributeNS(namespace: String?, qualifiedName:
String, value: String)\n fun removeAttribute(qualifiedName: String)\n fun removeAttributeNS(namespace:
String?, localName: String)\n fun hasAttribute(qualifiedName: String): Boolean\n fun
hasAttributeNS(namespace: String?, localName: String): Boolean\n fun getAttributeNode(qualifiedName: String):
Attr?\n fun getAttributeNodeNS(namespace:
String?, localName: String): Attr?\n fun setAttributeNode(attr: Attr): Attr?\n fun setAttributeNodeNS(attr: Attr):
Attr?\n fun removeAttributeNode(attr: Attr): Attr?\n fun attachShadow(init: ShadowRootInit): ShadowRoot\n
fun closest(selectors: String): Element?\n fun matches(selectors: String): Boolean\n fun
webkitMatchesSelector(selectors: String): Boolean\n fun getElementsByTagName(qualifiedName: String):
HTMLCollection\n fun getElementsByTagNameNS(namespace: String?, localName: String): HTMLCollection\n
fun getElementsByClassName(classNames: String): HTMLCollection\n fun insertAdjacentElement(when: String,
element: Element): Element?\n fun insertAdjacentText(when: String, data: String)\n fun getClientRects():
Array<DOMRect>\n fun getBoundingClientRect(): DOMRect\n fun scrollIntoView()\n fun
scrollIntoView(arg: dynamic)\n fun scroll(options: ScrollToOptions = definedExternally)\n fun scroll(x: Double,
y:
Double)\n fun scrollTo(options: ScrollToOptions = definedExternally)\n fun scrollTo(x: Double, y: Double)\n
fun scrollBy(options: ScrollToOptions = definedExternally)\n fun scrollBy(x: Double, y: Double)\n fun
insertAdjacentHTML(position: String, text: String)\n fun setPointerCapture(pointerId: Int)\n fun
releasePointerCapture(pointerId: Int)\n fun hasPointerCapture(pointerId: Int): Boolean\n fun requestFullscreen():
Promise<Unit>\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE:
Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val
ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val
PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val
DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val
DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val
DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING:
Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val
DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n
val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n\n public external interface
ShadowRootInit {\n var mode: ShadowRootMode?\n}\n\n @Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n @kotlin.internal.InlineOnly\n public inline fun ShadowRootInit(mode:
ShadowRootMode?): ShadowRootInit {\n val o = js(\"({})\")\n o[\"mode\"] = mode\n return o\n}\n\n /**\n * Exposes the JavaScript [NamedNodeMap](https://developer.mozilla.org/en/docs/Web/API/NamedNodeMap) to
Kotlin\n *\n public external abstract class NamedNodeMap : ItemArrayLike<Attr> {\n fun
getNamedItemNS(namespace: String?, localName: String): Attr?\n fun setNamedItem(attr: Attr): Attr?\n fun
setNamedItemNS(attr: Attr): Attr?\n fun removeNamedItem(qualifiedName: String): Attr?\n fun
removeNamedItemNS(namespace: String?,
localName: String): Attr?\n override fun item(index: Int): Attr?\n fun getNamedItem(qualifiedName: String):
Attr?\n}\n\n @Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n @kotlin.internal.InlineOnly\n public inline operator fun NamedNodeMap.get(index:
Int): Attr? = asDynamic()[index]\n\n @Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n @kotlin.internal.InlineOnly\n public inline operator fun
NamedNodeMap.get(qualifiedName: String): Attr? = asDynamic()[qualifiedName]\n\n /**\n * Exposes the
JavaScript [Attr](https://developer.mozilla.org/en/docs/Web/API/Attr) to Kotlin\n *\n public external abstract class
Attr : Node {\n open val namespaceURI: String?\n open val prefix: String?\n open val localName: String\n

```



```

*/\npublic external open class CDATASection : Text {\n  companion object {\n    val ELEMENT_NODE:
Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE:
Short\n    val ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n    val
PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n  }\n}\n\n/**\n * Exposes the JavaScript
[ProcessingInstruction](https://developer.mozilla.org/en/docs/Web/API/ProcessingInstruction) to Kotlin\n
*/\npublic external abstract
class ProcessingInstruction : CharacterData, LinkStyle, UnionElementOrProcessingInstruction {\n  open val
target: String\n\n  companion object {\n    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE:
Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val
ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n    val
PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n  }\n}\n\n/**\n * Exposes the JavaScript
[Comment](https://developer.mozilla.org/en/docs/Web/API/Comment)
to Kotlin\n
*/\npublic external open class Comment(data: String = definedExternally) : CharacterData {\n
override val previousElementSibling: Element?\n  override val nextElementSibling: Element?\n  override fun
before(vararg nodes: dynamic)\n  override fun after(vararg nodes: dynamic)\n  override fun replaceWith(vararg
nodes: dynamic)\n  override fun remove()\n\n  companion object {\n    val ELEMENT_NODE: Short\n    val
ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val
ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n    val
PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n
    val DOCUMENT_POSITION_CONTAINS: Short\n    val DOCUMENT_POSITION_CONTAINED_BY:
Short\n    val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n  }\n}\n\n/**\n * Exposes
the JavaScript [Range](https://developer.mozilla.org/en/docs/Web/API/Range) to Kotlin\n
*/\npublic external open
class Range {\n  open val startContainer: Node\n  open val startOffset: Int\n  open val endContainer: Node\n
open val endOffset: Int\n  open val collapsed: Boolean\n  open val commonAncestorContainer: Node\n  fun
setStart(node: Node, offset: Int)\n  fun setEnd(node: Node, offset: Int)\n  fun setStartBefore(node: Node)\n  fun
setStartAfter(node: Node)\n  fun setEndBefore(node: Node)\n  fun setEndAfter(node: Node)\n  fun
collapse(toStart: Boolean = definedExternally)\n  fun selectNode(node: Node)\n  fun selectNodeContents(node:
Node)\n  fun compareBoundaryPoints(how: Short, sourceRange: Range): Short\n  fun deleteContents()\n  fun
extractContents(): DocumentFragment\n
    fun cloneContents(): DocumentFragment\n  fun insertNode(node: Node)\n  fun surroundContents(newParent:
Node)\n  fun cloneRange(): Range\n  fun detach()\n  fun isPointInRange(node: Node, offset: Int): Boolean\n
fun comparePoint(node: Node, offset: Int): Short\n  fun intersectsNode(node: Node): Boolean\n  fun

```

```

getClientRects(): Array<DOMRect>\n fun getBoundingClientRect(): DOMRect\n fun
createContextualFragment(fragment: String): DocumentFragment\n\n companion object {\n val
START_TO_START: Short\n val START_TO_END: Short\n val END_TO_END: Short\n val
END_TO_START: Short\n }\n}\n\n/**\n * Exposes the JavaScript
[NodeIterator](https://developer.mozilla.org/en/docs/Web/API/NodeIterator) to Kotlin\n *\npublic external abstract
class NodeIterator {\n open val root: Node\n open val referenceNode: Node\n open val
pointerBeforeReferenceNode: Boolean\n open val whatToShow: Int\n open val filter: NodeFilter?\n
fun nextNode(): Node?\n fun previousNode(): Node?\n fun detach()\n}\n\n/**\n * Exposes the JavaScript
[TreeWalker](https://developer.mozilla.org/en/docs/Web/API/TreeWalker) to Kotlin\n *\npublic external abstract
class TreeWalker {\n open val root: Node\n open val whatToShow: Int\n open val filter: NodeFilter?\n open
var currentNode: Node\n fun parentNode(): Node?\n fun firstChild(): Node?\n fun lastChild(): Node?\n fun
previousSibling(): Node?\n fun nextSibling(): Node?\n fun previousNode(): Node?\n fun nextNode():
Node?\n}\n\n/**\n * Exposes the JavaScript
[NodeFilter](https://developer.mozilla.org/en/docs/Web/API/NodeFilter) to Kotlin\n
*\n\n@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")\npublic external interface NodeFilter {\n
fun acceptNode(node: Node): Short\n\n companion object {\n val FILTER_ACCEPT: Short\n val
FILTER_REJECT: Short\n val FILTER_SKIP: Short\n val SHOW_ALL: Int\n val
SHOW_ELEMENT:
Int\n val SHOW_ATTRIBUTE: Int\n val SHOW_TEXT: Int\n val SHOW_CDATA_SECTION: Int\n
val SHOW_ENTITY_REFERENCE: Int\n val SHOW_ENTITY: Int\n val
SHOW_PROCESSING_INSTRUCTION: Int\n val SHOW_COMMENT: Int\n val SHOW_DOCUMENT:
Int\n val SHOW_DOCUMENT_TYPE: Int\n val SHOW_DOCUMENT_FRAGMENT: Int\n val
SHOW_NOTATION: Int\n }\n}\n\n/**\n * Exposes the JavaScript
[DOMTokenList](https://developer.mozilla.org/en/docs/Web/API/DOMTokenList) to Kotlin\n *\npublic external
abstract class DOMTokenList : ItemArrayLike<String> {\n open var value: String\n fun contains(token: String):
Boolean\n fun add(vararg tokens: String)\n fun remove(vararg tokens: String)\n fun toggle(token: String,
force: Boolean = definedExternally): Boolean\n fun replace(token: String, newToken: String)\n fun
supports(token: String): Boolean\n override fun item(index: Int):
String?\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n\n@kotlin.internal.InlineOnly\npublic inline operator fun DOMTokenList.get(index:
Int): String? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript
[DOMPointReadOnly](https://developer.mozilla.org/en/docs/Web/API/DOMPointReadOnly) to Kotlin\n *\npublic
external open class DOMPointReadOnly(x: Double, y: Double, z: Double, w: Double) {\n open val x: Double\n
open val y: Double\n open val z: Double\n open val w: Double\n fun matrixTransform(matrix:
DOMMatrixReadOnly): DOMPoint\n}\n\n/**\n * Exposes the JavaScript
[DOMPoint](https://developer.mozilla.org/en/docs/Web/API/DOMPoint) to Kotlin\n *\npublic external open class
DOMPoint : DOMPointReadOnly {\n constructor(point: DOMPointInit)\n constructor(x: Double =
definedExternally, y: Double = definedExternally, z: Double = definedExternally, w: Double = definedExternally)\n
override var x: Double\n override var y: Double\n override var z: Double\n override var w:
Double\n}\n\n/**\n * Exposes the JavaScript [DOMPointInit](https://developer.mozilla.org/en/docs/Web/API/DOMPointInit) to
Kotlin\n *\npublic external interface DOMPointInit {\n var x: Double? /* = 0.0 *\n get() =
definedExternally\n set(value) = definedExternally\n var y: Double? /* = 0.0 *\n get() =
definedExternally\n set(value) = definedExternally\n var z: Double? /* = 0.0 *\n get() =
definedExternally\n set(value) = definedExternally\n var w: Double? /* = 1.0 *\n get() =
definedExternally\n set(value) = definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n\n@kotlin.internal.InlineOnly\npublic inline fun DOMPointInit(x: Double? = 0.0, y:
Double? = 0.0, z: Double? = 0.0, w: Double? = 1.0): DOMPointInit {\n val o = js("{}")\n o["x"] = x\n

```

```

o["y"] = y\n  o["z"] = z\n  o["w"] = w\n  return o\n}\n\n**\n * Exposes the JavaScript
[DOMRect](https://developer.mozilla.org/en/docs/Web/API/DOMRect)
to Kotlin\n *\npublic external open class DOMRect(x: Double = definedExternally, y: Double = definedExternally,
width: Double = definedExternally, height: Double = definedExternally) : DOMRectReadOnly {\n  override var x:
Double\n  override var y: Double\n  override var width: Double\n  override var height: Double\n}\n\n**\n *
Exposes the JavaScript [DOMRectReadOnly](https://developer.mozilla.org/en/docs/Web/API/DOMRectReadOnly)
to Kotlin\n *\npublic external open class DOMRectReadOnly(x: Double, y: Double, width: Double, height:
Double) {\n  open val x: Double\n  open val y: Double\n  open val width: Double\n  open val height: Double\n
open val top: Double\n  open val right: Double\n  open val bottom: Double\n  open val left: Double\n}\n\npublic
external interface DOMRectInit {\n  var x: Double? /* = 0.0 */\n  get() = definedExternally\n  set(value) =
definedExternally\n  var y: Double? /* = 0.0 */\n  get() = definedExternally\n
  set(value) = definedExternally\n  var width: Double? /* = 0.0 */\n  get() = definedExternally\n
  set(value) = definedExternally\n  var height: Double? /* = 0.0 */\n  get() = definedExternally\n  set(value) =
definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun DOMRectInit(x: Double? = 0.0, y:
Double? = 0.0, width: Double? = 0.0, height: Double? = 0.0): DOMRectInit {\n  val o = js("{}")\n  o["x"] =
x\n  o["y"] = y\n  o["width"] = width\n  o["height"] = height\n  return o\n}\n\npublic external interface
DOMRectList : ItemArrayLike<DOMRect> {\n  override fun item(index: Int):
DOMRect?\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline operator fun DOMRectList.get(index: Int):
DOMRect? = asDynamic()[index]\n\n**\n * Exposes the JavaScript
[DOMQuad](https://developer.mozilla.org/en/docs/Web/API/DOMQuad)
to Kotlin\n *\npublic external open class DOMQuad {\n  constructor(p1: DOMPointInit = definedExternally, p2:
DOMPointInit = definedExternally, p3: DOMPointInit = definedExternally, p4: DOMPointInit =
definedExternally)\n  constructor(rect: DOMRectInit)\n  open val p1: DOMPoint\n  open val p2: DOMPoint\n
open val p3: DOMPoint\n  open val p4: DOMPoint\n  open val bounds: DOMRectReadOnly\n}\n\n**\n *
Exposes the JavaScript
[DOMMatrixReadOnly](https://developer.mozilla.org/en/docs/Web/API/DOMMatrixReadOnly) to Kotlin\n
*\npublic external open class DOMMatrixReadOnly(numberSequence: Array<Double>) {\n  open val a: Double\n
open val b: Double\n  open val c: Double\n  open val d: Double\n  open val e: Double\n  open val f: Double\n
open val m11: Double\n  open val m12: Double\n  open val m13: Double\n  open val m14: Double\n  open val
m21: Double\n  open val m22: Double\n  open val m23: Double\n  open val m24: Double\n  open val m31:
Double\n  open val m32: Double\n  open val m33: Double\n  open val m34: Double\n  open val m41: Double\n
open val m42: Double\n  open val m43: Double\n  open val m44: Double\n  open val is2D: Boolean\n  open
val isIdentity: Boolean\n  fun translate(tx: Double, ty: Double, tz: Double = definedExternally): DOMMatrix\n
fun scale(scale: Double, originX: Double = definedExternally, originY: Double = definedExternally): DOMMatrix\n
fun scale3d(scale: Double, originX: Double = definedExternally, originY: Double = definedExternally, originZ:
Double = definedExternally): DOMMatrix\n  fun scaleNonUniform(scaleX: Double, scaleY: Double =
definedExternally, scaleZ: Double = definedExternally, originX: Double = definedExternally, originY: Double =
definedExternally, originZ: Double = definedExternally): DOMMatrix\n  fun rotate(angle: Double, originX:
Double = definedExternally, originY: Double = definedExternally): DOMMatrix\n  fun rotateFromVector(x:
Double, y: Double):
DOMMatrix\n  fun rotateAxisAngle(x: Double, y: Double, z: Double, angle: Double): DOMMatrix\n  fun
skewX(sx: Double): DOMMatrix\n  fun skewY(sy: Double): DOMMatrix\n  fun multiply(other: DOMMatrix):
DOMMatrix\n  fun flipX(): DOMMatrix\n  fun flipY(): DOMMatrix\n  fun inverse(): DOMMatrix\n  fun
transformPoint(point: DOMPointInit = definedExternally): DOMPoint\n  fun toFloat32Array(): Float32Array\n
fun toFloat64Array(): Float64Array\n}\n\n**\n * Exposes the JavaScript
[DOMMatrix](https://developer.mozilla.org/en/docs/Web/API/DOMMatrix) to Kotlin\n *\npublic external open

```

```

class DOMMatrix() : DOMMatrixReadOnly {
    constructor(transformList: String)
    constructor(other: DOMMatrixReadOnly)
    constructor(array32: Float32Array)
    constructor(array64: Float64Array)
    constructor(numberSequence: Array<Double>)
    override var a: Double
    override var b: Double
    override var c: Double
    override var d: Double
    override var e: Double
    override var f: Double
    override var m11: Double
    override var m12: Double
    override var m13: Double
    override var m14: Double
    override var m21: Double
    override var m22: Double
    override var m23: Double
    override var m24: Double
    override var m31: Double
    override var m32: Double
    override var m33: Double
    override var m34: Double
    override var m41: Double
    override var m42: Double
    override var m43: Double
    override var m44: Double
    fun multiplySelf(other: DOMMatrix): DOMMatrix
    fun preMultiplySelf(other: DOMMatrix): DOMMatrix
    fun translateSelf(tx: Double, ty: Double, tz: Double = definedExternally): DOMMatrix
    fun scaleSelf(scale: Double, originX: Double = definedExternally, originY: Double = definedExternally): DOMMatrix
    fun scale3dSelf(scale: Double, originX: Double = definedExternally, originY: Double = definedExternally, originZ: Double = definedExternally): DOMMatrix
    fun scaleNonUniformSelf(scaleX: Double, scaleY: Double = definedExternally, scaleZ: Double = definedExternally, originX: Double = definedExternally, originY: Double = definedExternally, originZ: Double = definedExternally): DOMMatrix
    fun rotateSelf(angle: Double, originX: Double = definedExternally, originY: Double = definedExternally): DOMMatrix
    fun rotateFromVectorSelf(x: Double, y: Double): DOMMatrix
    fun rotateAxisAngleSelf(x: Double, y: Double, z: Double, angle: Double): DOMMatrix
    fun skewXSelf(sx: Double): DOMMatrix
    fun skewYSelf(sy: Double): DOMMatrix
    fun invertSelf(): DOMMatrix
    fun setMatrixValue(transformList: String): DOMMatrix
}

public external interface ScrollOptions {
    var behavior: ScrollBehavior? /* = ScrollBehavior.AUTO */
    get() = definedExternally
    set(value) = definedExternally
}

@Suppress("INVISIBLE_REFERENCE", "INVISIBLE_MEMBER")
@kotlin.internal.InlineOnly
public inline fun ScrollOptions(behavior: ScrollBehavior? = ScrollBehavior.AUTO): ScrollOptions {
    val o = js("{}")
    o["behavior"] = behavior
    return o
}

/** Exposes the JavaScript [ScrollToOptions](https://developer.mozilla.org/en/docs/Web/API/ScrollToOptions) to Kotlin */
public external interface ScrollToOptions : ScrollOptions {
    var left: Double?
    get() = definedExternally
    set(value) = definedExternally
    var top: Double?
    get() = definedExternally
    set(value) = definedExternally
}

@Suppress("INVISIBLE_REFERENCE", "INVISIBLE_MEMBER")
@kotlin.internal.InlineOnly
public inline fun ScrollToOptions(left: Double? = undefined, top: Double? = undefined, behavior: ScrollBehavior? = ScrollBehavior.AUTO): ScrollToOptions {
    val o = js("{}")
    o["left"] = left
    o["top"] = top
    o["behavior"] = behavior
    return o
}

/** Exposes the JavaScript [MediaQueryList](https://developer.mozilla.org/en/docs/Web/API/MediaQueryList) to Kotlin */
public external abstract class MediaQueryList : EventTarget {
    open val media: String
    open val matches: Boolean
    open var onchange: ((Event) -> dynamic)?
    fun addListener(listener: EventListener?)
    fun addListener(listener: ((Event) -> Unit)?)
    fun removeListener(listener: EventListener?)
    fun removeListener(listener: ((Event) -> Unit)?)
}

/** Exposes the JavaScript [MediaQueryListEvent](https://developer.mozilla.org/en/docs/Web/API/MediaQueryListEvent) to Kotlin */
public external open class MediaQueryListEvent(type: String, eventInitDict: MediaQueryListEventInit = definedExternally) : Event {
    open val media: String
    open val matches: Boolean
    companion object {
        val NONE: Short
        val CAPTURING_PHASE: Short
        val AT_TARGET: Short
        val BUBBLING_PHASE: Short
    }
}

public external interface MediaQueryListEventInit : EventInit {
    var media: String? /* = "" */
    get() = definedExternally
    set(value) = definedExternally
    var matches: Boolean? /* = false */
    get() = definedExternally
    set(value) = definedExternally
}

@Suppress("INVISIBLE_REFERENCE",

```



```

\ "INVISIBLE_MEMBER" )\n@kotlin.internal.InlineOnly\npublic inline fun MediaQueryListEventInit(media:
String? = \ "", matches: Boolean? = false, bubbles: Boolean? = false, cancelable: Boolean? = false, composed:
Boolean? = false): MediaQueryListEventInit { \n val o = js(\ "({})" )\n o[ "media" ] = media\ \n o[ "matches" ] =
matches\ \n o[ "bubbles" ] = bubbles\ \n o[ "cancelable" ] = cancelable\ \n o[ "composed" ] = composed\ \n return
o\ \n}\n\n/**\n * Exposes the JavaScript [Screen](https://developer.mozilla.org/en/docs/Web/API/Screen) to Kotlin\n
*/\npublic external abstract class Screen { \n open val availWidth: Int\ \n open val availHeight: Int\ \n open val
width: Int\ \n open val height: Int\ \n open val colorDepth: Int\ \n open val pixelDepth: Int\ \n}\n\n/**\n * Exposes
the
JavaScript [CaretPosition](https://developer.mozilla.org/en/docs/Web/API/CaretPosition) to Kotlin\n
*/\npublic
external abstract class CaretPosition { \n open val offsetNode: Node\ \n open val offset: Int\ \n fun
getClientRect(): DOMRect? \n}\n\npublic external interface ScrollIntoViewOptions : ScrollOptions { \n var block:
ScrollLogicalPosition? /* = ScrollLogicalPosition.CENTER */\ \n get() = definedExternally\ \n set(value) =
definedExternally\ \n var inline: ScrollLogicalPosition? /* = ScrollLogicalPosition.CENTER */\ \n get() =
definedExternally\ \n set(value) = definedExternally\ \n}\n\n@Suppress(\ "INVISIBLE_REFERENCE" ,
\ "INVISIBLE_MEMBER" )\n@kotlin.internal.InlineOnly\npublic inline fun ScrollIntoViewOptions(block:
ScrollLogicalPosition? = ScrollLogicalPosition.CENTER, inline: ScrollLogicalPosition? =
ScrollLogicalPosition.CENTER, behavior: ScrollBehavior? = ScrollBehavior.AUTO): ScrollIntoViewOptions { \n
val o = js(\ "({})" )\n o[ "block" ] = block\ \n
o[ "inline" ] = inline\ \n o[ "behavior" ] = behavior\ \n return o\ \n}\n\npublic external interface BoxQuadOptions
{ \n var box: CSSBoxType? /* = CSSBoxType.BORDER */\ \n get() = definedExternally\ \n set(value) =
definedExternally\ \n var relativeTo: dynamic\ \n get() = definedExternally\ \n set(value) =
definedExternally\ \n}\n\n@Suppress(\ "INVISIBLE_REFERENCE" ,
\ "INVISIBLE_MEMBER" )\n@kotlin.internal.InlineOnly\npublic inline fun BoxQuadOptions(box: CSSBoxType?
= CSSBoxType.BORDER, relativeTo: dynamic = undefined): BoxQuadOptions { \n val o = js(\ "({})" )\n
o[ "box" ] = box\ \n o[ "relativeTo" ] = relativeTo\ \n return o\ \n}\n\npublic external interface
ConvertCoordinateOptions { \n var fromBox: CSSBoxType? /* = CSSBoxType.BORDER */\ \n get() =
definedExternally\ \n set(value) = definedExternally\ \n var toBox: CSSBoxType? /* = CSSBoxType.BORDER
*/\ \n get() = definedExternally\ \n set(value) =
definedExternally\ \n}\n\n@Suppress(\ "INVISIBLE_REFERENCE" ,
\ "INVISIBLE_MEMBER" )\n@kotlin.internal.InlineOnly\npublic inline fun ConvertCoordinateOptions(fromBox:
CSSBoxType? = CSSBoxType.BORDER, toBox: CSSBoxType? = CSSBoxType.BORDER):
ConvertCoordinateOptions { \n val o = js(\ "({})" )\n o[ "fromBox" ] = fromBox\ \n o[ "toBox" ] = toBox\ \n
return o\ \n}\n\n/**\n * Exposes the JavaScript
[GeometryUtils](https://developer.mozilla.org/en/docs/Web/API/GeometryUtils) to Kotlin\n
*/\npublic external
interface GeometryUtils { \n fun getBoxQuads(options: BoxQuadOptions = definedExternally):
Array<DOMQuad>\ \n fun convertQuadFromNode(quad: dynamic, from: dynamic, options:
ConvertCoordinateOptions = definedExternally): DOMQuad\ \n fun convertRectFromNode(rect:
DOMRectReadOnly, from: dynamic, options: ConvertCoordinateOptions = definedExternally): DOMQuad\ \n fun
convertPointFromNode(point: DOMPointInit, from: dynamic, options: ConvertCoordinateOptions =
definedExternally): DOMPoint\ \n}\n\n/**\n * Exposes the JavaScript
[Touch](https://developer.mozilla.org/en/docs/Web/API/Touch) to Kotlin\n
*/\npublic external abstract class Touch
{ \n open val identifier: Int\ \n open val target: EventTarget\ \n open val screenX: Int\ \n open val screenY: Int\ \n
open val clientX: Int\ \n open val clientY: Int\ \n open val pageX: Int\ \n open val pageY: Int\ \n open val region:
String? \n}\n\npublic external abstract class TouchList : ItemArrayLike<Touch> { \n override fun item(index: Int):
Touch? \n}\n\n@Suppress(\ "INVISIBLE_REFERENCE" ,
\ "INVISIBLE_MEMBER" )\n@kotlin.internal.InlineOnly\npublic inline operator fun TouchList.get(index: Int):
Touch? = asDynamic()[index]\n\npublic external open class TouchEvent : UIEvent { \n open val touches:
TouchList\ \n open val targetTouches: TouchList\ \n open val changedTouches: TouchList\ \n open val altKey:

```



```

HTMLSlotElement? \n  override fun prepend(vararg nodes: dynamic)\n  override fun append(vararg nodes:
dynamic)\n
  override fun querySelector(selectors: String): Element?\n  override fun querySelectorAll(selectors: String):
NodeList\n  override fun before(vararg nodes: dynamic)\n  override fun after(vararg nodes: dynamic)\n  override
fun replaceWith(vararg nodes: dynamic)\n  override fun remove()\n  override fun getBoxQuads(options:
BoxQuadOptions /* = definedExternally */): Array<DOMQuad>\n  override fun convertQuadFromNode(quad:
dynamic, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n  override
fun convertRectFromNode(rect: DOMRectReadOnly, from: dynamic, options: ConvertCoordinateOptions /* =
definedExternally */): DOMQuad\n  override fun convertPointFromNode(point: DOMPointInit, from: dynamic,
options: ConvertCoordinateOptions /* = definedExternally */): DOMPoint\n\n  companion object {\n    val
ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val
CDATA_SECTION_NODE: Short\n
    val ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n    val
PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n  }\n\n  public external open class
Audio(src: String = definedExternally) : HTMLAudioElement {\n  override var onabort: ((Event) -> dynamic)?\n
  override var onblur: ((FocusEvent) -> dynamic)?\n  override var oncancel: ((Event) -> dynamic)?\n
  override var oncanplay: ((Event) -> dynamic)?\n  override var oncanplaythrough: ((Event) -> dynamic)?\n
  override var onchange: ((Event)
-> dynamic)?\n  override var onclick: ((MouseEvent) -> dynamic)?\n  override var onclose: ((Event) ->
dynamic)?\n  override var oncontextmenu: ((MouseEvent) -> dynamic)?\n  override var oncuechange: ((Event) ->
dynamic)?\n  override var ondblclick: ((MouseEvent) -> dynamic)?\n  override var ondrag: ((DragEvent) ->
dynamic)?\n  override var ondragend: ((DragEvent) -> dynamic)?\n  override var ondragenter: ((DragEvent) ->
dynamic)?\n  override var ondragexit: ((DragEvent) -> dynamic)?\n  override var ondragleave: ((DragEvent) ->
dynamic)?\n  override var ondragover: ((DragEvent) -> dynamic)?\n  override var ondragstart: ((DragEvent) ->
dynamic)?\n  override var ondrop: ((DragEvent) -> dynamic)?\n  override var ondurationchange: ((Event) ->
dynamic)?\n  override var onemptied: ((Event) -> dynamic)?\n  override var onended: ((Event) -> dynamic)?\n
  override var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\n  override var onfocus: ((FocusEvent)
-> dynamic)?\n  override var oninput: ((InputEvent) -> dynamic)?\n  override var oninvalid: ((Event) ->
dynamic)?\n  override var onkeydown: ((KeyboardEvent) -> dynamic)?\n  override var onkeypress:
((KeyboardEvent) -> dynamic)?\n  override var onkeyup: ((KeyboardEvent) -> dynamic)?\n  override var onload:
((Event) -> dynamic)?\n  override var onloadeddata: ((Event) -> dynamic)?\n  override var onloadedmetadata:
((Event) -> dynamic)?\n  override var onloadend: ((Event) -> dynamic)?\n  override var onloadstart:
((ProgressEvent) -> dynamic)?\n  override var onmousedown: ((MouseEvent) -> dynamic)?\n  override var
onmouseenter: ((MouseEvent) -> dynamic)?\n  override var onmouseleave: ((MouseEvent) -> dynamic)?\n
  override var onmousemove: ((MouseEvent) -> dynamic)?\n  override var onmouseout: ((MouseEvent) ->
dynamic)?\n  override var onmouseover: ((MouseEvent) -> dynamic)?\n  override var onmouseup: ((MouseEvent)
-> dynamic)?\n  override var onwheel:
((WheelEvent) -> dynamic)?\n  override var onpause: ((Event) -> dynamic)?\n  override var onplay: ((Event) ->
dynamic)?\n  override var onplaying: ((Event) -> dynamic)?\n  override var onprogress: ((ProgressEvent) ->
dynamic)?\n  override var onratechange: ((Event) -> dynamic)?\n  override var onreset: ((Event) -> dynamic)?\n
  override var onresize: ((Event) -> dynamic)?\n  override var onscroll: ((Event) -> dynamic)?\n  override var
onseeked: ((Event) -> dynamic)?\n  override var onseeking: ((Event) -> dynamic)?\n  override var onselect:

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((Event) -> dynamic)?\n  override var onshow: ((Event) -> dynamic)?\n  override var onstalled: ((Event) ->
dynamic)?\n  override var onsubmit: ((Event) -> dynamic)?\n  override var onsuspend: ((Event) -> dynamic)?\n
override var ontimeoutupdate: ((Event) -> dynamic)?\n  override var ontoggle: ((Event) -> dynamic)?\n  override var
onvolumechange: ((Event) -> dynamic)?\n  override var onwaiting: ((Event) -> dynamic)?\n
  override var ongotpointercapture: ((PointerEvent) -> dynamic)?\n  override var onlostpointercapture:
((PointerEvent) -> dynamic)?\n  override var onpointerdown: ((PointerEvent) -> dynamic)?\n  override var
onpointermove: ((PointerEvent) -> dynamic)?\n  override var onpointerup: ((PointerEvent) -> dynamic)?\n
override var onpointercancel: ((PointerEvent) -> dynamic)?\n  override var onpointerover: ((PointerEvent) ->
dynamic)?\n  override var onpointerout: ((PointerEvent) -> dynamic)?\n  override var onpointerenter:
((PointerEvent) -> dynamic)?\n  override var onpointerleave: ((PointerEvent) -> dynamic)?\n  override var
oncopy: ((ClipboardEvent) -> dynamic)?\n  override var oncut: ((ClipboardEvent) -> dynamic)?\n  override var
onpaste: ((ClipboardEvent) -> dynamic)?\n  override var contentEditable: String\n  override val
isContentEditable: Boolean\n  override val style: CSSStyleDeclaration\n  override val children:
HTMLCollection\n  override val
  firstElementChild: Element?\n  override val lastElementChild: Element?\n  override val childElementCount:
Int\n  override val previousElementSibling: Element?\n  override val nextElementSibling: Element?\n  override
val assignedSlot: HTMLSlotElement?\n  override fun prepend(vararg nodes: dynamic)\n  override fun
append(vararg nodes: dynamic)\n  override fun querySelector(selectors: String): Element?\n  override fun
querySelectorAll(selectors: String): NodeList\n  override fun before(vararg nodes: dynamic)\n  override fun
after(vararg nodes: dynamic)\n  override fun replaceWith(vararg nodes: dynamic)\n  override fun remove()\n
override fun getBoxQuads(options: BoxQuadOptions /* = definedExternally */): Array<DOMQuad>\n  override
fun convertQuadFromNode(quad: dynamic, from: dynamic, options: ConvertCoordinateOptions /* =
definedExternally */): DOMQuad\n  override fun convertRectFromNode(rect: DOMRectReadOnly, from:
dynamic, options: ConvertCoordinateOptions
/* = definedExternally */): DOMQuad\n  override fun convertPointFromNode(point: DOMPointInit, from:
dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMPoint\n\n  companion object {\n
val NETWORK_EMPTY: Short\n    val NETWORK_IDLE: Short\n    val NETWORK_LOADING: Short\n
val NETWORK_NO_SOURCE: Short\n    val HAVE_NOTHING: Short\n    val HAVE_METADATA:
Short\n    val HAVE_CURRENT_DATA: Short\n    val HAVE_FUTURE_DATA: Short\n    val
HAVE_ENOUGH_DATA: Short\n    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n
val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE:
Short\n    val ENTITY_NODE: Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val
COMMENT_NODE: Short\n    val DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n
val DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED:
Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n    val
DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n  }\n\n  /**\n   * Exposes the JavaScript
[Option](https://developer.mozilla.org/en/docs/Web/API/Option) to Kotlin\n   */\n  @public external open class
Option(text: String = definedExternally, value: String = definedExternally, defaultSelected: Boolean =
definedExternally, selected: Boolean = definedExternally) : HTMLOptionElement {\n  override var onabort:
((Event) -> dynamic)?\n  override var onblur: ((FocusEvent) -> dynamic)?\n  override var oncancel: ((Event) ->
dynamic)?\n  override var oncanplay: ((Event) -> dynamic)?\n  override var oncanplaythrough: ((Event) ->
dynamic)?\n  override var onchange: ((Event) -> dynamic)?\n  override var onclick: ((MouseEvent) ->
dynamic)?\n  override var onclose:
((Event) -> dynamic)?\n  override var oncontextmenu: ((MouseEvent) -> dynamic)?\n  override var
oncuechange: ((Event) -> dynamic)?\n  override var ondblclick: ((MouseEvent) -> dynamic)?\n  override var

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ondrag: ((DragEvent) -> dynamic)?\n  override var ondragend: ((DragEvent) -> dynamic)?\n  override var
ondragenter: ((DragEvent) -> dynamic)?\n  override var ondragexit: ((DragEvent) -> dynamic)?\n  override var
ondragleave: ((DragEvent) -> dynamic)?\n  override var ondragover: ((DragEvent) -> dynamic)?\n  override var
ondragstart: ((DragEvent) -> dynamic)?\n  override var ondrop: ((DragEvent) -> dynamic)?\n  override var
ondurationchange: ((Event) -> dynamic)?\n  override var onemptied: ((Event) -> dynamic)?\n  override var
onended: ((Event) -> dynamic)?\n  override var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\n
override var onfocus: ((FocusEvent) -> dynamic)?\n  override var oninput: ((InputEvent) -> dynamic)?\n  override
var oninvalid:
((Event) -> dynamic)?\n  override var onkeydown: ((KeyboardEvent) -> dynamic)?\n  override var onkeypress:
((KeyboardEvent) -> dynamic)?\n  override var onkeyup: ((KeyboardEvent) -> dynamic)?\n  override var onload:
((Event) -> dynamic)?\n  override var onloadeddata: ((Event) -> dynamic)?\n  override var onloadedmetadata:
((Event) -> dynamic)?\n  override var onloadend: ((Event) -> dynamic)?\n  override var onloadstart:
((ProgressEvent) -> dynamic)?\n  override var onmousedown: ((MouseEvent) -> dynamic)?\n  override var
onmouseenter: ((MouseEvent) -> dynamic)?\n  override var onmouseleave: ((MouseEvent) -> dynamic)?\n
override var onmousemove: ((MouseEvent) -> dynamic)?\n  override var onmouseout: ((MouseEvent) ->
dynamic)?\n  override var onmouseover: ((MouseEvent) -> dynamic)?\n  override var onmouseup: ((MouseEvent)
-> dynamic)?\n  override var onwheel: ((WheelEvent) -> dynamic)?\n  override var onpause: ((Event) ->
dynamic)?\n  override
var onplay: ((Event) -> dynamic)?\n  override var onplaying: ((Event) -> dynamic)?\n  override var onprogress:
((ProgressEvent) -> dynamic)?\n  override var onratechange: ((Event) -> dynamic)?\n  override var onreset:
((Event) -> dynamic)?\n  override var onresize: ((Event) -> dynamic)?\n  override var onscroll: ((Event) ->
dynamic)?\n  override var onseeked: ((Event) -> dynamic)?\n  override var onseeking: ((Event) -> dynamic)?\n
override var onselect: ((Event) -> dynamic)?\n  override var onshow: ((Event) -> dynamic)?\n  override var
onstalled: ((Event) -> dynamic)?\n  override var onsubmit: ((Event) -> dynamic)?\n  override var onsuspend:
((Event) -> dynamic)?\n  override var ontimeupdate: ((Event) -> dynamic)?\n  override var ontoggle: ((Event) ->
dynamic)?\n  override var onvolumechange: ((Event) -> dynamic)?\n  override var onwaiting: ((Event) ->
dynamic)?\n  override var ongotpointercapture: ((PointerEvent) -> dynamic)?\n  override var
onlostpointercapture:
((PointerEvent) -> dynamic)?\n  override var onpointerdown: ((PointerEvent) -> dynamic)?\n  override var
onpointermove: ((PointerEvent) -> dynamic)?\n  override var onpointerup: ((PointerEvent) -> dynamic)?\n
override var onpointercancel: ((PointerEvent) -> dynamic)?\n  override var onpointerover: ((PointerEvent) ->
dynamic)?\n  override var onpointerout: ((PointerEvent) -> dynamic)?\n  override var onpointerenter:
((PointerEvent) -> dynamic)?\n  override var onpointerleave: ((PointerEvent) -> dynamic)?\n  override var
oncopy: ((ClipboardEvent) -> dynamic)?\n  override var oncut: ((ClipboardEvent) -> dynamic)?\n  override var
onpaste: ((ClipboardEvent) -> dynamic)?\n  override var contentEditable: String\n  override val
isContentEditable: Boolean\n  override val style: CSSStyleDeclaration\n  override val children:
HTMLCollection\n  override val firstElementChild: Element?\n  override val lastElementChild: Element?\n
override val
childElementCount: Int\n  override val previousElementSibling: Element?\n  override val nextElementSibling:
Element?\n  override val assignedSlot: HTMLSlotElement?\n  override fun prepend(vararg nodes: dynamic)\n
override fun append(vararg nodes: dynamic)\n  override fun querySelector(selectors: String): Element?\n
override fun querySelectorAll(selectors: String): NodeList\n  override fun before(vararg nodes: dynamic)\n
override fun after(vararg nodes: dynamic)\n  override fun replaceWith(vararg nodes: dynamic)\n  override fun
remove()\n  override fun getBoxQuads(options: BoxQuadOptions /* = definedExternally */): Array<DOMQuad>\n
  override fun convertQuadFromNode(quad: dynamic, from: dynamic, options: ConvertCoordinateOptions /* =
definedExternally */): DOMQuad\n  override fun convertRectFromNode(rect: DOMRectReadOnly, from:
dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n  override fun
convertPointFromNode(point: DOMPointInit,

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from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMPoint\n\n companion object
{\n    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n
val CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val
ENTITY_NODE: Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE:
Short\n    val DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n } }\n\npublic external interface
UnionElementOrHTMLCollection\n\npublic external interface UnionElementOrRadioNodeList\n\npublic
external interface UnionHTMLOptGroupElementOrHTMLOptionElement\n\npublic external interface
UnionAudioTrackOrTextTrackOrVideoTrack\n\npublic external interface UnionElementOrMouseEvent\n\npublic
external interface UnionMessagePortOrWindowProxy\n\npublic external interface MediaProvider\n\npublic
external interface RenderingContext\n\npublic external interface HTMLOrSVGImageElement :
CanvasImageSource\n\npublic external interface CanvasImageSource : ImageBitmapSource\n\npublic external
interface ImageBitmapSource\n\npublic external interface HTMLOrSVGScriptElement\n\n/* please, don't
implement this interface!
*/\n\n@JsName("null")\n@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")\n\npublic external
interface DocumentReadyState {\n    companion object\n}\n\npublic inline val
DocumentReadyState.Companion.LOADING: DocumentReadyState get() =
"loading".asDynamic().unsafeCast<DocumentReadyState>()\n\npublic inline val
DocumentReadyState.Companion.INTERACTIVE: DocumentReadyState get() =
"interactive".asDynamic().unsafeCast<DocumentReadyState>()\n\npublic
inline val DocumentReadyState.Companion.COMPLETE: DocumentReadyState get() =
"complete".asDynamic().unsafeCast<DocumentReadyState>()\n\n/* please, don't implement this interface!
*/\n\n@JsName("null")\n@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")\n\npublic external
interface CanPlayTypeResult {\n    companion object\n}\n\npublic inline val
CanPlayTypeResult.Companion.EMPTY: CanPlayTypeResult get() =
"".asDynamic().unsafeCast<CanPlayTypeResult>()\n\npublic inline val CanPlayTypeResult.Companion.MAYBE:
CanPlayTypeResult get() = "maybe".asDynamic().unsafeCast<CanPlayTypeResult>()\n\npublic inline val
CanPlayTypeResult.Companion.PROBABLY: CanPlayTypeResult get() =
"probably".asDynamic().unsafeCast<CanPlayTypeResult>()\n\n/* please, don't implement this interface!
*/\n\n@JsName("null")\n@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")\n\npublic external
interface TextTrackMode {\n    companion object\n}\n\npublic
inline val TextTrackMode.Companion.DISABLED: TextTrackMode get() =
"disabled".asDynamic().unsafeCast<TextTrackMode>()\n\npublic inline val
TextTrackMode.Companion.HIDDEN: TextTrackMode get() =
"hidden".asDynamic().unsafeCast<TextTrackMode>()\n\npublic inline val
TextTrackMode.Companion.SHOWING: TextTrackMode get() =
"showing".asDynamic().unsafeCast<TextTrackMode>()\n\n/* please, don't implement this interface!
*/\n\n@JsName("null")\n@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")\n\npublic external
interface TextTrackKind {\n    companion object\n}\n\npublic inline val TextTrackKind.Companion.SUBTITLES:
TextTrackKind get() = "subtitles".asDynamic().unsafeCast<TextTrackKind>()\n\npublic inline val
TextTrackKind.Companion.CAPTIONS: TextTrackKind get() =
"captions".asDynamic().unsafeCast<TextTrackKind>()\n\npublic inline val
TextTrackKind.Companion.DESCRPTIONS: TextTrackKind get() =
"descriptions".asDynamic().unsafeCast<TextTrackKind>()\n\npublic inline val

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TextTrackKind.Companion.CHAPTERS:

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TextTrackKind get() = \"chapters\".asDynamic().unsafeCast<TextTrackKind>()\n\npublic inline val  
TextTrackKind.Companion.METADATA: TextTrackKind get() =  
\"metadata\".asDynamic().unsafeCast<TextTrackKind>()\n\n/* please, don't implement this interface!  
*\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic external  
interface SelectionMode {\n    companion object\n}\n\npublic inline val SelectionMode.Companion.SELECT:  
SelectionMode get() = \"select\".asDynamic().unsafeCast<SelectionMode>()\n\npublic inline val  
SelectionMode.Companion.START: SelectionMode get() =  
\"start\".asDynamic().unsafeCast<SelectionMode>()\n\npublic inline val SelectionMode.Companion.END:  
SelectionMode get() = \"end\".asDynamic().unsafeCast<SelectionMode>()\n\npublic inline val  
SelectionMode.Companion.PRESERVE: SelectionMode get() =  
\"preserve\".asDynamic().unsafeCast<SelectionMode>()\n\n/* please, don't implement this interface!  
*\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic  
external interface CanvasFillRule {\n    companion object\n}\n\npublic inline val  
CanvasFillRule.Companion.NONZERO: CanvasFillRule get() =  
\"nonzero\".asDynamic().unsafeCast<CanvasFillRule>()\n\npublic inline val  
CanvasFillRule.Companion.EVENODD: CanvasFillRule get() =  
\"evenodd\".asDynamic().unsafeCast<CanvasFillRule>()\n\n/* please, don't implement this interface!  
*\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic external  
interface ImageSmoothingQuality {\n    companion object\n}\n\npublic inline val  
ImageSmoothingQuality.Companion.LOW: ImageSmoothingQuality get() =  
\"low\".asDynamic().unsafeCast<ImageSmoothingQuality>()\n\npublic inline val  
ImageSmoothingQuality.Companion.MEDIUM: ImageSmoothingQuality get() =  
\"medium\".asDynamic().unsafeCast<ImageSmoothingQuality>()\n\npublic inline val  
ImageSmoothingQuality.Companion.HIGH: ImageSmoothingQuality get() =  
\"high\".asDynamic().unsafeCast<ImageSmoothingQuality>()\n\n/*  
please, don't implement this interface!  
*\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic external  
interface CanvasLineCap {\n    companion object\n}\n\npublic inline val CanvasLineCap.Companion.BUTT:  
CanvasLineCap get() = \"butt\".asDynamic().unsafeCast<CanvasLineCap>()\n\npublic inline val  
CanvasLineCap.Companion.ROUND: CanvasLineCap get() =  
\"round\".asDynamic().unsafeCast<CanvasLineCap>()\n\npublic inline val CanvasLineCap.Companion.SQUARE:  
CanvasLineCap get() = \"square\".asDynamic().unsafeCast<CanvasLineCap>()\n\n/* please, don't implement this  
interface! *\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic  
external interface CanvasLineJoin {\n    companion object\n}\n\npublic inline val  
CanvasLineJoin.Companion.ROUND: CanvasLineJoin get() =  
\"round\".asDynamic().unsafeCast<CanvasLineJoin>()\n\npublic inline val CanvasLineJoin.Companion.BEVEL:  
CanvasLineJoin get() = \"bevel\".asDynamic().unsafeCast<CanvasLineJoin>()\n\npublic  
inline val CanvasLineJoin.Companion.MITER: CanvasLineJoin get() =  
\"miter\".asDynamic().unsafeCast<CanvasLineJoin>()\n\n/* please, don't implement this interface!  
*\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic external  
interface CanvasTextAlign {\n    companion object\n}\n\npublic inline val CanvasTextAlign.Companion.START:  
CanvasTextAlign get() = \"start\".asDynamic().unsafeCast<CanvasTextAlign>()\n\npublic inline val  
CanvasTextAlign.Companion.END: CanvasTextAlign get() =  
\"end\".asDynamic().unsafeCast<CanvasTextAlign>()\n\npublic inline val CanvasTextAlign.Companion.LEFT:  
CanvasTextAlign get() = \"left\".asDynamic().unsafeCast<CanvasTextAlign>()\n\npublic inline val  
CanvasTextAlign.Companion.RIGHT: CanvasTextAlign get() =  
\"right\".asDynamic().unsafeCast<CanvasTextAlign>()\n\npublic inline val
```

```

CanvasTextAlign.Companion.CENTER: CanvasTextAlign get() =
    \"center\".asDynamic().unsafeCast<CanvasTextAlign>()\n\n/* please, don't implement this interface!
    *\n\n@JsName(\"null\")\n\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic external
interface CanvasTextBaseline {\n    companion object\n}\n\npublic inline val CanvasTextBaseline.Companion.TOP:
CanvasTextBaseline get() = \"top\".asDynamic().unsafeCast<CanvasTextBaseline>()\n\npublic inline val
CanvasTextBaseline.Companion.HANGING: CanvasTextBaseline get() =
    \"hanging\".asDynamic().unsafeCast<CanvasTextBaseline>()\n\npublic inline val
CanvasTextBaseline.Companion.MIDDLE: CanvasTextBaseline get() =
    \"middle\".asDynamic().unsafeCast<CanvasTextBaseline>()\n\npublic inline val
CanvasTextBaseline.Companion.ALPHABETIC: CanvasTextBaseline get() =
    \"alphabetic\".asDynamic().unsafeCast<CanvasTextBaseline>()\n\npublic inline val
CanvasTextBaseline.Companion.IDEOGRAPHIC: CanvasTextBaseline get() =
    \"ideographic\".asDynamic().unsafeCast<CanvasTextBaseline>()\n\npublic inline val
CanvasTextBaseline.Companion.BOTTOM: CanvasTextBaseline get() =
    \"bottom\".asDynamic().unsafeCast<CanvasTextBaseline>()\n\n\n/*
    please, don't implement this interface!
    *\n\n@JsName(\"null\")\n\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic external
interface CanvasDirection {\n    companion object\n}\n\npublic inline val CanvasDirection.Companion.LTR:
CanvasDirection get() = \"ltr\".asDynamic().unsafeCast<CanvasDirection>()\n\npublic inline val
CanvasDirection.Companion.RTL: CanvasDirection get() =
    \"rtl\".asDynamic().unsafeCast<CanvasDirection>()\n\npublic inline val CanvasDirection.Companion.INHERIT:
CanvasDirection get() = \"inherit\".asDynamic().unsafeCast<CanvasDirection>()\n\n\n/* please, don't implement this
interface! *\n\n@JsName(\"null\")\n\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic
external interface ScrollRestoration {\n    companion object\n}\n\npublic inline val
ScrollRestoration.Companion.AUTO: ScrollRestoration get() =
    \"auto\".asDynamic().unsafeCast<ScrollRestoration>()\n\npublic inline val
ScrollRestoration.Companion.MANUAL: ScrollRestoration get() =
    \"manual\".asDynamic().unsafeCast<ScrollRestoration>()\n\n\n/*
    please, don't implement this interface!
    *\n\n@JsName(\"null\")\n\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic external
interface ImageOrientation {\n    companion object\n}\n\npublic inline val ImageOrientation.Companion.NONE:
ImageOrientation get() = \"none\".asDynamic().unsafeCast<ImageOrientation>()\n\npublic inline val
ImageOrientation.Companion.FLIPY: ImageOrientation get() =
    \"flipY\".asDynamic().unsafeCast<ImageOrientation>()\n\n\n/* please, don't implement this interface!
    *\n\n@JsName(\"null\")\n\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic external
interface PremultiplyAlpha {\n    companion object\n}\n\npublic inline val PremultiplyAlpha.Companion.NONE:
PremultiplyAlpha get() = \"none\".asDynamic().unsafeCast<PremultiplyAlpha>()\n\npublic inline val
PremultiplyAlpha.Companion.PREMULTIPLY: PremultiplyAlpha get() =
    \"premultiply\".asDynamic().unsafeCast<PremultiplyAlpha>()\n\npublic inline val
PremultiplyAlpha.Companion.DEFAULT:
    PremultiplyAlpha get() = \"default\".asDynamic().unsafeCast<PremultiplyAlpha>()\n\n\n/* please, don't implement
this interface! *\n\n@JsName(\"null\")\n\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic
external interface ColorSpaceConversion {\n    companion object\n}\n\npublic inline val
ColorSpaceConversion.Companion.NONE: ColorSpaceConversion get() =
    \"none\".asDynamic().unsafeCast<ColorSpaceConversion>()\n\npublic inline val
ColorSpaceConversion.Companion.DEFAULT: ColorSpaceConversion get() =
    \"default\".asDynamic().unsafeCast<ColorSpaceConversion>()\n\n\n/* please, don't implement this interface!
    *\n\n@JsName(\"null\")\n\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic external

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interface ResizeQuality {\n  companion object\n}\n\npublic inline val ResizeQuality.Companion.PIXELATED:
ResizeQuality get() = \"pixelated\".asDynamic().unsafeCast<ResizeQuality>()\n\npublic inline val
ResizeQuality.Companion.LOW: ResizeQuality get() =
\"low\".asDynamic().unsafeCast<ResizeQuality>()\n\npublic
inline val ResizeQuality.Companion.MEDIUM: ResizeQuality get() =
\"medium\".asDynamic().unsafeCast<ResizeQuality>()\n\npublic inline val ResizeQuality.Companion.HIGH:
ResizeQuality get() = \"high\".asDynamic().unsafeCast<ResizeQuality>()\n\n/* please, don't implement this
interface! *\n\n@JsName(\"null\")\n\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic
external interface BinaryType {\n  companion object\n}\n\npublic inline val BinaryType.Companion.BLOB:
BinaryType get() = \"blob\".asDynamic().unsafeCast<BinaryType>()\n\npublic inline val
BinaryType.Companion.ARRAYBUFFER: BinaryType get() =
\"arraybuffer\".asDynamic().unsafeCast<BinaryType>()\n\n/* please, don't implement this interface!
*\n\n@JsName(\"null\")\n\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic external
interface WorkerType {\n  companion object\n}\n\npublic inline val WorkerType.Companion.CLASSIC:
WorkerType get() = \"classic\".asDynamic().unsafeCast<WorkerType>()\n\npublic
inline val WorkerType.Companion.MODULE: WorkerType get() =
\"module\".asDynamic().unsafeCast<WorkerType>()\n\n/* please, don't implement this interface!
*\n\n@JsName(\"null\")\n\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic external
interface ShadowRootMode {\n  companion object\n}\n\npublic inline val ShadowRootMode.Companion.OPEN:
ShadowRootMode get() = \"open\".asDynamic().unsafeCast<ShadowRootMode>()\n\npublic inline val
ShadowRootMode.Companion.CLOSED: ShadowRootMode get() =
\"closed\".asDynamic().unsafeCast<ShadowRootMode>()\n\n/* please, don't implement this interface!
*\n\n@JsName(\"null\")\n\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic external
interface ScrollBehavior {\n  companion object\n}\n\npublic inline val ScrollBehavior.Companion.AUTO:
ScrollBehavior get() = \"auto\".asDynamic().unsafeCast<ScrollBehavior>()\n\npublic inline val
ScrollBehavior.Companion.INSTANT: ScrollBehavior get() =
\"instant\".asDynamic().unsafeCast<ScrollBehavior>()\n\npublic
inline val ScrollBehavior.Companion.SMOOTH: ScrollBehavior get() =
\"smooth\".asDynamic().unsafeCast<ScrollBehavior>()\n\n/* please, don't implement this interface!
*\n\n@JsName(\"null\")\n\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic external
interface ScrollLogicalPosition {\n  companion object\n}\n\npublic inline val
ScrollLogicalPosition.Companion.START: ScrollLogicalPosition get() =
\"start\".asDynamic().unsafeCast<ScrollLogicalPosition>()\n\npublic inline val
ScrollLogicalPosition.Companion.CENTER: ScrollLogicalPosition get() =
\"center\".asDynamic().unsafeCast<ScrollLogicalPosition>()\n\npublic inline val
ScrollLogicalPosition.Companion.END: ScrollLogicalPosition get() =
\"end\".asDynamic().unsafeCast<ScrollLogicalPosition>()\n\npublic inline val
ScrollLogicalPosition.Companion.NEAREST: ScrollLogicalPosition get() =
\"nearest\".asDynamic().unsafeCast<ScrollLogicalPosition>()\n\n/* please, don't implement this interface!
*\n\n@JsName(\"null\")\n\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic
external interface CSSBoxType {\n  companion object\n}\n\npublic inline val
CSSBoxType.Companion.MARGIN: CSSBoxType get() =
\"margin\".asDynamic().unsafeCast<CSSBoxType>()\n\npublic inline val CSSBoxType.Companion.BORDER:
CSSBoxType get() = \"border\".asDynamic().unsafeCast<CSSBoxType>()\n\npublic inline val
CSSBoxType.Companion.PADDING: CSSBoxType get() =
\"padding\".asDynamic().unsafeCast<CSSBoxType>()\n\npublic inline val CSSBoxType.Companion.CONTENT:
CSSBoxType get() = \"content\".asDynamic().unsafeCast<CSSBoxType>()\", /*\n * Copyright 2010-2021 JetBrains
s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0

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license that can be found in the license/LICENSE.txt file.\n \*\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.fetch\n\nimport kotlin.js.\*\nimport org.khronos.webgl.\*\nimport org.w3c.files.\*\nimport org.w3c.xhr.\*\n\n/\*\*\n \* Exposes the JavaScript [Headers](https://developer.mozilla.org/en/docs/Web/API/Headers) to Kotlin\n \*\n\npublic external open class Headers(init: dynamic = definedExternally) {\n fun append(name: String, value: String)\n fun delete(name: String)\n fun get(name: String): String?\n fun has(name: String): Boolean\n fun set(name: String, value: String)\n}\n\n/\*\*\n \* Exposes the JavaScript [Body](https://developer.mozilla.org/en/docs/Web/API/Body) to Kotlin\n \*\n\npublic external interface Body {\n val bodyUsed: Boolean\n fun arrayBuffer(): Promise<ArrayBuffer>\n fun blob(): Promise<Blob>\n fun formData(): Promise<FormData>\n fun json(): Promise<Any?>\n fun text(): Promise<String>\n}\n\n/\*\*\n \* Exposes the JavaScript [Request](https://developer.mozilla.org/en/docs/Web/API/Request) to Kotlin\n \*\n\npublic external open class Request(input: dynamic, init: RequestInit = definedExternally) : Body {\n open val method: String\n open val url: String\n open val headers: Headers\n open val type: RequestType\n open val destination: RequestDestination\n open val referrer: String\n open val referrerPolicy: dynamic\n open val mode: RequestMode\n open val credentials: RequestCredentials\n open val cache: RequestCache\n open val redirect: RequestRedirect\n open val integrity: String\n open val keepalive: Boolean\n override val bodyUsed: Boolean\n fun clone(): Request\n override fun arrayBuffer(): Promise<ArrayBuffer>\n override fun blob(): Promise<Blob>\n override fun formData(): Promise<FormData>\n override fun json(): Promise<Any?>\n override fun text(): Promise<String>\n}\n\npublic external interface RequestInit {\n var method: String?\n get() = definedExternally\n set(value) = definedExternally\n var headers: dynamic\n get() = definedExternally\n set(value) = definedExternally\n var body: dynamic\n get() = definedExternally\n set(value) = definedExternally\n var referrer: String?\n get() = definedExternally\n set(value) = definedExternally\n var referrerPolicy: dynamic\n get() = definedExternally\n set(value) = definedExternally\n var mode: RequestMode?\n get() = definedExternally\n set(value) = definedExternally\n var credentials: RequestCredentials?\n get() = definedExternally\n set(value) = definedExternally\n var cache: RequestCache?\n get() = definedExternally\n set(value) = definedExternally\n var redirect: RequestRedirect?\n get() = definedExternally\n set(value) = definedExternally\n var integrity: String?\n get() = definedExternally\n set(value) = definedExternally\n var keepalive: Boolean?\n get() = definedExternally\n set(value) = definedExternally\n var window: Any?\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE\_REFERENCE\", \"INVISIBLE\_MEMBER\")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun RequestInit(method: String? = undefined, headers: dynamic = undefined, body: dynamic = undefined, referrer: String? = undefined, referrerPolicy: dynamic = undefined, mode: RequestMode? = undefined, credentials: RequestCredentials? = undefined, cache: RequestCache? = undefined, redirect: RequestRedirect? = undefined, integrity: String? = undefined, keepalive: Boolean? = undefined, window: Any? = undefined): RequestInit {\n val o = js(\"({})\")\n o[\"method\"] = method\n o[\"headers\"] = headers\n o[\"body\"] = body\n o[\"referrer\"] = referrer\n o[\"referrerPolicy\"] = referrerPolicy\n o[\"mode\"] = mode\n o[\"credentials\"] = credentials\n o[\"cache\"] = cache\n o[\"redirect\"] = redirect\n o[\"integrity\"] = integrity\n o[\"keepalive\"] = keepalive\n o[\"window\"] = window\n return o\n}\n\n/\*\*\n \* Exposes the JavaScript [Response](https://developer.mozilla.org/en/docs/Web/API/Response) to Kotlin\n \*\n\npublic external open class Response(body: dynamic = definedExternally, init: ResponseInit = definedExternally) : Body {\n open val type: ResponseType\n open val url: String\n open val redirected: Boolean\n open val status: Short\n open val ok: Boolean\n open val statusText: String\n open val headers: Headers\n open val body: dynamic\n open val trailer: Promise<Headers>\n override val bodyUsed: Boolean\n fun clone(): Response\n override fun arrayBuffer(): Promise<ArrayBuffer>\n override fun blob(): Promise<Blob>\n override fun formData(): Promise<FormData>\n override fun json(): Promise<Any?>\n override fun text(): Promise<String>\n}\n\ncompanion object {\n fun error(): Response\n fun redirect(url:

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String, status: Short = definedExternally): Response\n } }\n\npublic external interface ResponseInit {\n var
status: Short? /* = 200 */\n    get() = definedExternally\n
    set(value) = definedExternally\n    var statusText: String? /* = \"OK\" */\n    get() = definedExternally\n
set(value) = definedExternally\n    var headers: dynamic\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ResponseInit(status: Short? = 200,
statusText: String? = \"OK\", headers: dynamic = undefined): ResponseInit {\n    val o = js(\"({})\")\n    o[\"status\"]
= status\n    o[\"statusText\"] = statusText\n    o[\"headers\"] = headers\n    return o\n}\n\n/* please, don't implement
this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic
external interface RequestType {\n    companion object\n}\n\npublic inline val RequestType.Companion.EMPTY:
RequestType get() = \"\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val
RequestType.Companion.AUDIO: RequestType get() =
\"audio\".asDynamic().unsafeCast<RequestType>()\n\npublic
inline val RequestType.Companion.FONT: RequestType get() =
\"font\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val RequestType.Companion.IMAGE:
RequestType get() = \"image\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val
RequestType.Companion.SCRIPT: RequestType get() =
\"script\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val RequestType.Companion.STYLE:
RequestType get() = \"style\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val
RequestType.Companion.TRACK: RequestType get() =
\"track\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val RequestType.Companion.VIDEO:
RequestType get() = \"video\".asDynamic().unsafeCast<RequestType>()\n\n/* please, don't implement this
interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic
external interface RequestDestination {\n    companion object\n}\n\npublic inline val
RequestDestination.Companion.EMPTY: RequestDestination
get() = \"\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.DOCUMENT: RequestDestination get() =
\"document\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.EMBED: RequestDestination get() =
\"embed\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.FONT: RequestDestination get() =
\"font\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.IMAGE: RequestDestination get() =
\"image\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.MANIFEST: RequestDestination get() =
\"manifest\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.MEDIA: RequestDestination get() =
\"media\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.OBJECT: RequestDestination get()
= \"object\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.REPORT: RequestDestination get() =
\"report\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.SCRIPT: RequestDestination get() =
\"script\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.SERVICEMANIFEST: RequestDestination get() =
\"servicemanifest\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.SHAREDWORKER: RequestDestination get() =
\"sharedworker\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val

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RequestDestination.Companion.STYLE: RequestDestination get() =
    \"style\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.WORKER: RequestDestination get() =
    \"worker\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.XSLT: RequestDestination
    get() = \"xslt\".asDynamic().unsafeCast<RequestDestination>()\n\n/* please, don't implement this interface!
*\n\n@JsName(\"null\")\n\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic external
interface RequestMode {\n    companion object\n}\n\npublic inline val RequestMode.Companion.NAVIGATE:
RequestMode get() = \"navigate\".asDynamic().unsafeCast<RequestMode>()\n\npublic inline val
RequestMode.Companion.SAME_ORIGIN: RequestMode get() = \"same-
origin\".asDynamic().unsafeCast<RequestMode>()\n\npublic inline val RequestMode.Companion.NO_CORS:
RequestMode get() = \"no-cors\".asDynamic().unsafeCast<RequestMode>()\n\npublic inline val
RequestMode.Companion.CORS: RequestMode get() = \"cors\".asDynamic().unsafeCast<RequestMode>()\n\n/*
please, don't implement this interface!
*\n\n@JsName(\"null\")\n\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic external
interface RequestCredentials {\n    companion object\n}\n\npublic inline val RequestCredentials.Companion.OMIT:
RequestCredentials
    get() = \"omit\".asDynamic().unsafeCast<RequestCredentials>()\n\npublic inline val
RequestCredentials.Companion.SAME_ORIGIN: RequestCredentials get() = \"same-
origin\".asDynamic().unsafeCast<RequestCredentials>()\n\npublic inline val
RequestCredentials.Companion.INCLUDE: RequestCredentials get() =
    \"include\".asDynamic().unsafeCast<RequestCredentials>()\n\n/* please, don't implement this interface!
*\n\n@JsName(\"null\")\n\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic external
interface RequestCache {\n    companion object\n}\n\npublic inline val RequestCache.Companion.DEFAULT:
RequestCache get() = \"default\".asDynamic().unsafeCast<RequestCache>()\n\npublic inline val
RequestCache.Companion.NO_STORE: RequestCache get() = \"no-
store\".asDynamic().unsafeCast<RequestCache>()\n\npublic inline val RequestCache.Companion.RELOAD:
RequestCache get() = \"reload\".asDynamic().unsafeCast<RequestCache>()\n\npublic inline val
RequestCache.Companion.NO_CACHE: RequestCache get()
    = \"no-cache\".asDynamic().unsafeCast<RequestCache>()\n\npublic inline val
RequestCache.Companion.FORCE_CACHE: RequestCache get() = \"force-
cache\".asDynamic().unsafeCast<RequestCache>()\n\npublic inline val
RequestCache.Companion.ONLY_IF_CACHED: RequestCache get() = \"only-if-
cached\".asDynamic().unsafeCast<RequestCache>()\n\n/* please, don't implement this interface!
*\n\n@JsName(\"null\")\n\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic external
interface RequestRedirect {\n    companion object\n}\n\npublic inline val RequestRedirect.Companion.FOLLOW:
RequestRedirect get() = \"follow\".asDynamic().unsafeCast<RequestRedirect>()\n\npublic inline val
RequestRedirect.Companion.ERROR: RequestRedirect get() =
    \"error\".asDynamic().unsafeCast<RequestRedirect>()\n\npublic inline val RequestRedirect.Companion.MANUAL:
RequestRedirect get() = \"manual\".asDynamic().unsafeCast<RequestRedirect>()\n\n/* please, don't implement this
interface! *\n\n@JsName(\"null\")\n\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n\npublic
external interface ResponseType {\n    companion object\n}\n\npublic inline val
ResponseType.Companion.BASIC: ResponseType get() =
    \"basic\".asDynamic().unsafeCast<ResponseType>()\n\npublic inline val ResponseType.Companion.CORS:
ResponseType get() = \"cors\".asDynamic().unsafeCast<ResponseType>()\n\npublic inline val
ResponseType.Companion.DEFAULT: ResponseType get() =
    \"default\".asDynamic().unsafeCast<ResponseType>()\n\npublic inline val ResponseType.Companion.ERROR:
ResponseType get() = \"error\".asDynamic().unsafeCast<ResponseType>()\n\npublic inline val

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ResponseType.Companion.OPAQUE: ResponseType get() =
\"opaque\".asDynamic().unsafeCast<ResponseType>()\n\npublic inline val
ResponseType.Companion.OPAQUEREDIRECT: ResponseType get() =
\"opaqueredirect\".asDynamic().unsafeCast<ResponseType>()\n\n * Copyright 2010-2021 JetBrains s.r.o. and
Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license
that can be found in the license/LICENSE.txt file.\n *^\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO
NOT EDIT!\n\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.mediacapture\n\nimport
kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\n\n/**\n * Exposes
the JavaScript [MediaStream](https://developer.mozilla.org/en/docs/Web/API/MediaStream) to Kotlin\n\n *^\n\npublic
external open class MediaStream() : EventTarget, MediaProvider {\n  constructor(stream: MediaStream)\n
constructor(tracks: Array<MediaStreamTrack>)\n  open val id: String\n  open val active: Boolean\n  var
onaddtrack: ((MediaStreamTrackEvent) -> dynamic)?\n  var onremovetrack: ((MediaStreamTrackEvent) ->
dynamic)?\n  fun getAudioTracks(): Array<MediaStreamTrack>\n  fun getVideoTracks():
Array<MediaStreamTrack>\n  fun getTracks(): Array<MediaStreamTrack>\n  fun getTrackById(trackId: String):
MediaStreamTrack?\n  fun addTrack(track: MediaStreamTrack)\n
  fun removeTrack(track: MediaStreamTrack)\n  fun clone(): MediaStream\n}\n\n/**\n * Exposes the JavaScript
[MediaStreamTrack](https://developer.mozilla.org/en/docs/Web/API/MediaStreamTrack) to Kotlin\n\n *^\n\npublic
external abstract class MediaStreamTrack : EventTarget {\n  open val kind: String\n  open val id: String\n  open
val label: String\n  open var enabled: Boolean\n  open val muted: Boolean\n  open var onmute: ((Event) ->
dynamic)?\n  open var onunmute: ((Event) -> dynamic)?\n  open val readyState: MediaStreamTrackState\n
open var onended: ((Event) -> dynamic)?\n  open var onoverconstrained: ((Event) -> dynamic)?\n  fun clone():
MediaStreamTrack\n  fun stop()\n  fun getCapabilities(): MediaTrackCapabilities\n  fun getConstraints():
MediaTrackConstraints\n  fun getSettings(): MediaTrackSettings\n  fun applyConstraints(constraints:
MediaTrackConstraints = definedExternally): Promise<Unit>\n}\n\n/**\n * Exposes the JavaScript
[MediaTrackSupportedConstraints](https://developer.mozilla.org/en/docs/Web/API/MediaTrackSupportedConstrain
ts)
to Kotlin\n\n *^\n\npublic external interface MediaTrackSupportedConstraints {\n  var width: Boolean? /* = true *^\n
get() = definedExternally\n  set(value) = definedExternally\n  var height: Boolean? /* = true *^\n  get() =
definedExternally\n  set(value) = definedExternally\n  var aspectRatio: Boolean? /* = true *^\n  get() =
definedExternally\n  set(value) = definedExternally\n  var frameRate: Boolean? /* = true *^\n  get() =
definedExternally\n  set(value) = definedExternally\n  var facingMode: Boolean? /* = true *^\n  get() =
definedExternally\n  set(value) = definedExternally\n  var resizeMode: Boolean? /* = true *^\n  get() =
definedExternally\n  set(value) = definedExternally\n  var volume: Boolean? /* = true *^\n  get() =
definedExternally\n  set(value) = definedExternally\n  var sampleRate:
Boolean? /* = true *^\n  get() = definedExternally\n  set(value) = definedExternally\n  var sampleSize:
Boolean? /* = true *^\n  get() = definedExternally\n  set(value) = definedExternally\n  var
echoCancellation: Boolean? /* = true *^\n  get() = definedExternally\n  set(value) = definedExternally\n
var autoGainControl: Boolean? /* = true *^\n  get() = definedExternally\n  set(value) = definedExternally\n
var noiseSuppression: Boolean? /* = true *^\n  get() = definedExternally\n  set(value) = definedExternally\n
var latency: Boolean? /* = true *^\n  get() = definedExternally\n  set(value) = definedExternally\n  var
channelCount: Boolean? /* = true *^\n  get() = definedExternally\n  set(value) = definedExternally\n  var
deviceId: Boolean? /* = true *^\n  get() = definedExternally\n  set(value) = definedExternally\n  var
groupId: Boolean? /* = true *^\n  get() = definedExternally\n
  set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun
MediaTrackSupportedConstraints(width: Boolean? = true, height: Boolean? = true, aspectRatio: Boolean? = true,
frameRate: Boolean? = true, facingMode: Boolean? = true, resizeMode: Boolean? = true, volume: Boolean? = true,
sampleRate: Boolean? = true, sampleSize: Boolean? = true, echoCancellation: Boolean? = true, autoGainControl:

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Boolean? = true, noiseSuppression: Boolean? = true, latency: Boolean? = true, channelCount: Boolean? = true,
deviceId: Boolean? = true, groupId: Boolean? = true): MediaTrackSupportedConstraints {
    val o = js("{}")
    o["width"] = width
    o["height"] = height
    o["aspectRatio"] = aspectRatio
    o["frameRate"] =
frameRate
    o["facingMode"] = facingMode
    o["resizeMode"] = resizeMode
    o["volume"] = volume
    o["sampleRate"] = sampleRate
    o["sampleSize"]
    = sampleSize
    o["echoCancellation"] = echoCancellation
    o["autoGainControl"] = autoGainControl
    o["noiseSuppression"] = noiseSuppression
    o["latency"] = latency
    o["channelCount"] = channelCount
    o["deviceId"] = deviceId
    o["groupId"] = groupId
    return o
}

public external interface
MediaTrackCapabilities {
    var width: ULongRange?
    get() = definedExternally
    set(value) =
definedExternally
    var height: ULongRange?
    get() = definedExternally
    set(value) =
definedExternally
    var aspectRatio: DoubleRange?
    get() = definedExternally
    set(value) =
definedExternally
    var frameRate: DoubleRange?
    get() = definedExternally
    set(value) =
definedExternally
    var facingMode: Array<String>?
    get() = definedExternally
    set(value) =
definedExternally
    var resizeMode: Array<String>?
    get() = definedExternally
    set(value) =
definedExternally
    var volume: DoubleRange?
    get() = definedExternally
    set(value) = definedExternally
    var
sampleRate: ULongRange?
    get() = definedExternally
    set(value) = definedExternally
    var
sampleSize: ULongRange?
    get() = definedExternally
    set(value) = definedExternally
    var
echoCancellation: Array<Boolean>?
    get() = definedExternally
    set(value) = definedExternally
    var
autoGainControl: Array<Boolean>?
    get() = definedExternally
    set(value) = definedExternally
    var
noiseSuppression: Array<Boolean>?
    get() = definedExternally
    set(value) = definedExternally
    var
latency: DoubleRange?
    get() = definedExternally
    set(value) = definedExternally
    var channelCount:
ULongRange?
    get() = definedExternally
    set(value) = definedExternally
    var deviceId: String?
    get() = definedExternally
    set(value) = definedExternally
    var groupId: String?
    get() = definedExternally
    set(value) =
definedExternally
}

@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")
@kotlin.internal.InlineOnly
public inline fun MediaTrackCapabilities(width:
ULongRange? = undefined, height: ULongRange? = undefined, aspectRatio: DoubleRange? = undefined,
frameRate: DoubleRange? = undefined, facingMode: Array<String>? = undefined, resizeMode: Array<String>? =
undefined, volume: DoubleRange? = undefined, sampleRate: ULongRange? = undefined, sampleSize:
ULongRange? = undefined, echoCancellation: Array<Boolean>? = undefined, autoGainControl: Array<Boolean>?
= undefined, noiseSuppression: Array<Boolean>? = undefined, latency: DoubleRange? = undefined, channelCount:
ULongRange? = undefined, deviceId: String? = undefined, groupId: String? = undefined): MediaTrackCapabilities
{
    val o = js("{}")
    o["width"] = width
    o["height"] = height
    o["aspectRatio"] = aspectRatio
    o["frameRate"]
    = frameRate
    o["facingMode"] = facingMode
    o["resizeMode"] = resizeMode
    o["volume"] =
volume
    o["sampleRate"] = sampleRate
    o["sampleSize"] = sampleSize
    o["echoCancellation"] =
echoCancellation
    o["autoGainControl"] = autoGainControl
    o["noiseSuppression"] = noiseSuppression
    o["latency"] = latency
    o["channelCount"] = channelCount
    o["deviceId"] = deviceId
    o["groupId"] =
groupId
    return o
}

/** Exposes the JavaScript
[MediaTrackConstraints](https://developer.mozilla.org/en/docs/Web/API/MediaTrackConstraints) to Kotlin
*/
public external interface MediaTrackConstraints : MediaTrackConstraintSet {
    var advanced:
Array<MediaTrackConstraintSet>?
    get() = definedExternally
    set(value) =
definedExternally
}

@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")
@kotlin.internal.InlineOnly
public inline fun MediaTrackConstraints(advanced:
Array<MediaTrackConstraintSet>?
= undefined, width: dynamic = undefined, height: dynamic = undefined, aspectRatio: dynamic = undefined,
frameRate: dynamic = undefined, facingMode: dynamic = undefined, resizeMode: dynamic = undefined, volume:

```

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dynamic = undefined, sampleRate: dynamic = undefined, sampleSize: dynamic = undefined, echoCancellation:
dynamic = undefined, autoGainControl: dynamic = undefined, noiseSuppression: dynamic = undefined, latency:
dynamic = undefined, channelCount: dynamic = undefined, deviceId: dynamic = undefined, groupId: dynamic =
undefined): MediaTrackConstraints {
    val o = js("{}")
    o["advanced"] = advanced
    o["width"] = width
    o["height"] = height
    o["aspectRatio"] = aspectRatio
    o["frameRate"] = frameRate
    o["facingMode"] = facingMode
    o["resizeMode"] = resizeMode
    o["volume"] = volume
    o["sampleRate"] = sampleRate
    o["sampleSize"] = sampleSize
    o["echoCancellation"] = echoCancellation
    o["autoGainControl"] = autoGainControl
    o["noiseSuppression"] = noiseSuppression
    o["latency"] = latency
    o["channelCount"] = channelCount
    o["deviceId"] = deviceId
    o["groupId"] = groupId
    return o
}

public external interface MediaTrackConstraintSet {
    var width: dynamic
    get() = definedExternally
    set(value) = definedExternally
    var height: dynamic
    get() = definedExternally
    set(value) = definedExternally
    var aspectRatio: dynamic
    get() = definedExternally
    set(value) = definedExternally
    var frameRate: dynamic
    get() = definedExternally
    set(value) = definedExternally
    var facingMode: dynamic
    get() = definedExternally
    set(value) = definedExternally
    var resizeMode: dynamic
    get() = definedExternally
    set(value) = definedExternally
    var volume: dynamic
    get() = definedExternally
    set(value) = definedExternally
    var sampleRate: dynamic
    get() = definedExternally
    set(value) = definedExternally
    var sampleSize: dynamic
    get() = definedExternally
    set(value) = definedExternally
    var echoCancellation: dynamic
    get() = definedExternally
    set(value) = definedExternally
    var autoGainControl: dynamic
    get() = definedExternally
    set(value) = definedExternally
    var noiseSuppression: dynamic
    get() = definedExternally
    set(value) = definedExternally
    var latency: dynamic
    get() = definedExternally
    set(value) = definedExternally
    var channelCount: dynamic
    get() = definedExternally
    set(value) = definedExternally
    var deviceId: dynamic
    get() = definedExternally
    set(value) = definedExternally
    var groupId: dynamic
    get() = definedExternally
    set(value) = definedExternally
}

@Suppress("INVISIBLE_REFERENCE", "INVISIBLE_MEMBER")
@kotlin.internal.InlineOnly
public inline fun MediaTrackConstraintSet(
    width: dynamic = undefined, height: dynamic = undefined, aspectRatio: dynamic = undefined,
    frameRate: dynamic = undefined, facingMode: dynamic = undefined, resizeMode: dynamic = undefined,
    volume: dynamic = undefined, sampleRate: dynamic = undefined, sampleSize: dynamic = undefined,
    echoCancellation: dynamic = undefined, autoGainControl: dynamic = undefined, noiseSuppression: dynamic = undefined,
    latency: dynamic = undefined, channelCount: dynamic = undefined, deviceId: dynamic = undefined,
    groupId: dynamic = undefined): MediaTrackConstraintSet {
    val o = js("{}")
    o["width"] = width
    o["height"] = height
    o["aspectRatio"] = aspectRatio
    o["frameRate"] = frameRate
    o["facingMode"] = facingMode
    o["resizeMode"] = resizeMode
    o["volume"] = volume
    o["sampleRate"] = sampleRate
    o["sampleSize"] = sampleSize
    o["echoCancellation"] = echoCancellation
    o["autoGainControl"] = autoGainControl
    o["noiseSuppression"] = noiseSuppression
    o["latency"] = latency
    o["channelCount"] = channelCount
    o["deviceId"] = deviceId
    o["groupId"] = groupId
    return o
}

/** Exposes the JavaScript [MediaTrackSettings](https://developer.mozilla.org/en/docs/Web/API/MediaTrackSettings) to Kotlin */
public external interface MediaTrackSettings {
    var width: Int?
    get() = definedExternally
    set(value) = definedExternally
    var height: Int?
    get() = definedExternally
    set(value) = definedExternally
    var aspectRatio: Double?
    get() = definedExternally
    set(value) = definedExternally
    var frameRate: Double?
    get() = definedExternally
    set(value) = definedExternally
    var facingMode: String?
    get() = definedExternally
    set(value) = definedExternally
    var resizeMode: String?
    get() = definedExternally
    set(value) = definedExternally
}

```

```

= definedExternally\n var volume: Double?\n get() = definedExternally\n set(value) =
definedExternally\n var sampleRate: Int?\n get() = definedExternally\n set(value) = definedExternally\n
var sampleSize: Int?\n get() = definedExternally\n set(value) = definedExternally\n var echoCancellation:
Boolean?\n get() = definedExternally\n set(value) = definedExternally\n var autoGainControl: Boolean?\n
get() = definedExternally\n set(value) = definedExternally\n var noiseSuppression: Boolean?\n get() =
definedExternally\n set(value) = definedExternally\n var latency: Double?\n get() = definedExternally\n
set(value) = definedExternally\n var channelCount: Int?\n get() = definedExternally\n set(value) =
definedExternally\n var deviceId: String?\n get() = definedExternally\n set(value) = definedExternally\n
var groupId: String?\n
get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaTrackSettings(width: Int? =
undefined, height: Int? = undefined, aspectRatio: Double? = undefined, frameRate: Double? = undefined,
facingMode: String? = undefined, resizeMode: String? = undefined, volume: Double? = undefined, sampleRate: Int?
= undefined, sampleSize: Int? = undefined, echoCancellation: Boolean? = undefined, autoGainControl: Boolean? =
undefined, noiseSuppression: Boolean? = undefined, latency: Double? = undefined, channelCount: Int? = undefined,
deviceId: String? = undefined, groupId: String? = undefined): MediaTrackSettings {\n val o = js(\"({})\")\n
o[\"width\"] = width\n o[\"height\"] = height\n o[\"aspectRatio\"] = aspectRatio\n o[\"frameRate\"] =
frameRate\n o[\"facingMode\"] = facingMode\n o[\"resizeMode\"] = resizeMode\n o[\"volume\"] = volume\n
o[\"sampleRate\"]
= sampleRate\n o[\"sampleSize\"] = sampleSize\n o[\"echoCancellation\"] = echoCancellation\n
o[\"autoGainControl\"] = autoGainControl\n o[\"noiseSuppression\"] = noiseSuppression\n o[\"latency\"] =
latency\n o[\"channelCount\"] = channelCount\n o[\"deviceId\"] = deviceId\n o[\"groupId\"] = groupId\n
return o\n}\n\n/**\n * Exposes the JavaScript
[MediaStreamTrackEvent](https://developer.mozilla.org/en/docs/Web/API/MediaStreamTrackEvent) to Kotlin\n
*/\npublic external open class MediaStreamTrackEvent(type: String, eventInitDict: MediaStreamTrackEventInit) :
Event {\n open val track: MediaStreamTrack\n\n companion object {\n val NONE: Short\n val
CAPTURING_PHASE: Short\n val AT_TARGET: Short\n val BUBBLING_PHASE: Short\n
}\n}\n\npublic external interface MediaStreamTrackEventInit : EventInit {\n var track:
MediaStreamTrack?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic
inline fun MediaStreamTrackEventInit(track: MediaStreamTrack?, bubbles: Boolean? = false, cancelable: Boolean?
= false, composed: Boolean? = false): MediaStreamTrackEventInit {\n val o = js(\"({})\")\n o[\"track\"] =
track\n o[\"bubbles\"] = bubbles\n o[\"cancelable\"] = cancelable\n o[\"composed\"] = composed\n return
o\n}\n\npublic external open class OverconstrainedErrorEvent(type: String, eventInitDict:
OverconstrainedErrorEventInit) : Event {\n open val error: dynamic\n\n companion object {\n val NONE:
Short\n val CAPTURING_PHASE: Short\n val AT_TARGET: Short\n val BUBBLING_PHASE:
Short\n }\n}\n\npublic external interface OverconstrainedErrorEventInit : EventInit {\n var error: dynamic /* =
null */\n get() = definedExternally\n set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun OverconstrainedErrorEventInit(error:
dynamic = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false):
OverconstrainedErrorEventInit {\n val o = js(\"({})\")\n o[\"error\"] = error\n o[\"bubbles\"] = bubbles\n
o[\"cancelable\"] = cancelable\n o[\"composed\"] = composed\n return o\n}\n\n/**\n * Exposes the JavaScript
[MediaDevices](https://developer.mozilla.org/en/docs/Web/API/MediaDevices) to Kotlin\n
*/\npublic external
abstract class MediaDevices : EventTarget {\n open var ondevicechange: ((Event) -> dynamic)?\n fun
enumerateDevices(): Promise<Array<MediaDeviceInfo>>\n fun getSupportedConstraints():
MediaTrackSupportedConstraints\n fun getUserMedia(constraints: MediaStreamConstraints = definedExternally):
Promise<MediaStream>\n}\n\n/**\n * Exposes the JavaScript

```



```

[MediaDeviceInfo](https://developer.mozilla.org/en/docs/Web/API/MediaDeviceInfo) to Kotlin\n *\npublic
external abstract class MediaDeviceInfo {\n    open val deviceId: String\n    open val kind:
MediaDeviceKind\n    open val label: String\n    open val groupId: String\n    fun toJSON(): dynamic\n}\n\npublic
external abstract class InputDeviceInfo : MediaDeviceInfo {\n    fun getCapabilities():
MediaTrackCapabilities\n}\n\n/**\n * Exposes the JavaScript
[MediaStreamConstraints](https://developer.mozilla.org/en/docs/Web/API/MediaStreamConstraints) to Kotlin\n
*\npublic external interface MediaStreamConstraints {\n    var video: dynamic /* = false *\n        get() =
definedExternally\n        set(value) = definedExternally\n    var audio: dynamic /* = false *\n        get() =
definedExternally\n        set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaStreamConstraints(video:
dynamic = false, audio: dynamic = false): MediaStreamConstraints {\n    val o = js(\"({})\")\n    o[\"video\"] =
video\n    o[\"audio\"] = audio\n    return o\n}\n\npublic external interface ConstrainingPattern
{\n    var onoverconstrained: ((Event) -> dynamic)?\n        get() = definedExternally\n        set(value) =
definedExternally\n    fun getCapabilities(): Capabilities\n    fun getConstraints(): Constraints\n    fun getSettings():
Settings\n    fun applyConstraints(constraints: Constraints = definedExternally): Promise<Unit>\n}\n\n/**\n *
Exposes the JavaScript [DoubleRange](https://developer.mozilla.org/en/docs/Web/API/DoubleRange) to Kotlin\n
*\npublic external interface DoubleRange {\n    var max: Double?\n        get() = definedExternally\n        set(value)
= definedExternally\n    var min: Double?\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleRange(max: Double? =
undefined, min: Double? = undefined): DoubleRange {\n    val o = js(\"({})\")\n    o[\"max\"] = max\n    o[\"min\"] =
min\n    return o\n}\n\npublic external interface
ConstrainDoubleRange : DoubleRange {\n    var exact: Double?\n        get() = definedExternally\n        set(value) =
definedExternally\n    var ideal: Double?\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ConstrainDoubleRange(exact: Double?
= undefined, ideal: Double? = undefined, max: Double? = undefined, min: Double? = undefined):
ConstrainDoubleRange {\n    val o = js(\"({})\")\n    o[\"exact\"] = exact\n    o[\"ideal\"] = ideal\n    o[\"max\"] =
max\n    o[\"min\"] = min\n    return o\n}\n\npublic external interface ULongRange {\n    var max: Int?\n        get() =
definedExternally\n        set(value) = definedExternally\n    var min: Int?\n        get() = definedExternally\n
set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ULongRange(max: Int?
= undefined, min: Int? = undefined): ULongRange {\n    val o = js(\"({})\")\n    o[\"max\"] = max\n    o[\"min\"] =
min\n    return o\n}\n\npublic external interface ConstrainULongRange : ULongRange {\n    var exact: Int?\n
get() = definedExternally\n        set(value) = definedExternally\n    var ideal: Int?\n        get() = definedExternally\n
set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ConstrainULongRange(exact: Int? =
undefined, ideal: Int? = undefined, max: Int? = undefined, min: Int? = undefined): ConstrainULongRange {\n    val o
= js(\"({})\")\n    o[\"exact\"] = exact\n    o[\"ideal\"] = ideal\n    o[\"max\"] = max\n    o[\"min\"] = min\n    return
o\n}\n\n/**\n * Exposes the JavaScript
[ConstrainBooleanParameters](https://developer.mozilla.org/en/docs/Web/API/ConstrainBooleanParameters) to
Kotlin\n *\npublic external interface ConstrainBooleanParameters {\n    var exact:
Boolean?\n        get() = definedExternally\n        set(value) = definedExternally\n    var ideal: Boolean?\n        get()
= definedExternally\n        set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ConstrainBooleanParameters(exact:
Boolean? = undefined, ideal: Boolean? = undefined): ConstrainBooleanParameters {\n    val o = js(\"({})\")\n
o[\"exact\"] = exact\n    o[\"ideal\"] = ideal\n    return o\n}\n\n/**\n * Exposes the JavaScript
[ConstrainDOMStringParameters](https://developer.mozilla.org/en/docs/Web/API/ConstrainDOMStringParameters)

```

```

to Kotlin\n *\/\npublic external interface ConstrainDOMStringParameters {\n    var exact: dynamic\n    get() = definedExternally\n    set(value) = definedExternally\n    var ideal: dynamic\n    get() = definedExternally\n    set(value) = definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",  
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic  
inline fun ConstrainDOMStringParameters(exact: dynamic = undefined, ideal: dynamic = undefined):  
ConstrainDOMStringParameters {\n    val o = js("{}")\n    o["exact"] = exact\n    o["ideal"] = ideal\n    return o\n}\n\npublic external interface Capabilities\n\n@Suppress("INVISIBLE_REFERENCE",  
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun Capabilities(): Capabilities {\n    val o =  
js("{}")\n    return o\n}\n\npublic external interface Settings\n\n@Suppress("INVISIBLE_REFERENCE",  
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun Settings(): Settings {\n    val o =  
js("{}")\n    return o\n}\n\npublic external interface ConstraintSet\n\n@Suppress("INVISIBLE_REFERENCE",  
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun ConstraintSet(): ConstraintSet {\n    val o = js("{}")\n    return o\n}\n\npublic external interface Constraints : ConstraintSet {\n    var advanced:  
Array<ConstraintSet>?\n    get() = definedExternally\n    set(value) =  
definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",  
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun Constraints(advanced:  
Array<ConstraintSet>? = undefined): Constraints {\n    val o = js("{}")\n    o["advanced"] = advanced\n    return o\n}\n\n/* please, don't implement this interface!  
*\/\n@JsName("null")\n@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")\npublic external  
interface MediaStreamTrackState {\n    companion object\n}\n\npublic inline val  
MediaStreamTrackState.Companion.LIVE: MediaStreamTrackState get() =  
"live".asDynamic().unsafeCast<MediaStreamTrackState>()\n\npublic inline val  
MediaStreamTrackState.Companion.ENDED: MediaStreamTrackState get() =  
"ended".asDynamic().unsafeCast<MediaStreamTrackState>()\n\n/* please, don't implement this interface!  
*\/\n@JsName("null")\n@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")\npublic external  
interface VideoFacingModeEnum {\n    companion object\n}\n\npublic inline val VideoFacingModeEnum.Companion.USER: VideoFacingModeEnum  
get() = "user".asDynamic().unsafeCast<VideoFacingModeEnum>()\n\npublic inline val  
VideoFacingModeEnum.Companion.ENVIRONMENT: VideoFacingModeEnum get() =  
"environment".asDynamic().unsafeCast<VideoFacingModeEnum>()\n\npublic inline val  
VideoFacingModeEnum.Companion.LEFT: VideoFacingModeEnum get() =  
"left".asDynamic().unsafeCast<VideoFacingModeEnum>()\n\npublic inline val  
VideoFacingModeEnum.Companion.RIGHT: VideoFacingModeEnum get() =  
"right".asDynamic().unsafeCast<VideoFacingModeEnum>()\n\n/* please, don't implement this interface!  
*\/\n@JsName("null")\n@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")\npublic external  
interface VideoResizeModeEnum {\n    companion object\n}\n\npublic inline val  
VideoResizeModeEnum.Companion.NONE: VideoResizeModeEnum get() =  
"none".asDynamic().unsafeCast<VideoResizeModeEnum>()\n\npublic inline val  
VideoResizeModeEnum.Companion.CROP_AND_SCALE:  
VideoResizeModeEnum get() = "crop-and-scale".asDynamic().unsafeCast<VideoResizeModeEnum>()\n\n/*  
please, don't implement this interface!  
*\/\n@JsName("null")\n@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")\npublic external  
interface MediaDeviceKind {\n    companion object\n}\n\npublic inline val  
MediaDeviceKind.Companion.AUDIOINPUT: MediaDeviceKind get() =  
"audioinput".asDynamic().unsafeCast<MediaDeviceKind>()\n\npublic inline val  
MediaDeviceKind.Companion.AUDIOOUTPUT: MediaDeviceKind get() =  
"audiooutput".asDynamic().unsafeCast<MediaDeviceKind>()\n\npublic inline val

```

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MediaDeviceKind.Companion.VIDEOINPUT: MediaDeviceKind get() =
\"videoinput\".asDynamic().unsafeCast<MediaDeviceKind>()\"/*\n * Copyright 2010-2021 JetBrains s.r.o. and
Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT
EDIT!\n// See github.com/kotlin/dukat
for details\n\npackage org.w3c.dom.mediasource\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport
org.w3c.dom.*\nimport org.w3c.dom.events.*\n\n/**\n * Exposes the JavaScript
[MediaSource](https://developer.mozilla.org/en/docs/Web/API/MediaSource) to Kotlin\n */\n\npublic external open
class MediaSource : EventTarget, MediaProvider {\n    open val sourceBuffers: SourceBufferList\n    open val
activeSourceBuffers: SourceBufferList\n    open val readyState: ReadyState\n    var duration: Double\n    var
onsourceopen: ((Event) -> dynamic)?\n    var onsourceended: ((Event) -> dynamic)?\n    var onsourceclose: ((Event)
-> dynamic)?\n    fun addSourceBuffer(type: String): SourceBuffer\n    fun removeSourceBuffer(sourceBuffer:
SourceBuffer)\n    fun endOfStream(error: EndOfStreamError = definedExternally)\n    fun
setLiveSeekableRange(start: Double, end: Double)\n    fun clearLiveSeekableRange()\n\n    companion object {\n
        fun isTypeSupported(type: String): Boolean\n    }\n\n    /**\n
 * Exposes the JavaScript [SourceBuffer](https://developer.mozilla.org/en/docs/Web/API/SourceBuffer) to Kotlin\n
 */\n\n    public external abstract class SourceBuffer : EventTarget {\n        open var mode: AppendMode\n        open val
updating: Boolean\n        open val buffered: TimeRanges\n        open var timestampOffset: Double\n        open val
audioTracks: AudioTrackList\n        open val videoTracks: VideoTrackList\n        open val textTracks: TextTrackList\n
        open var appendWindowStart: Double\n        open var appendWindowEnd: Double\n        open var onupdatestart:
((Event) -> dynamic)?\n        open var onupdate: ((Event) -> dynamic)?\n        open var onupdateend: ((Event) ->
dynamic)?\n        open var onerror: ((Event) -> dynamic)?\n        open var onabort: ((Event) -> dynamic)?\n        fun
appendBuffer(data: dynamic)\n        fun abort()\n        fun remove(start: Double, end: Double)\n    }\n\n    /**\n
 * Exposes the JavaScript [SourceBufferList](https://developer.mozilla.org/en/docs/Web/API/SourceBufferList) to Kotlin\n
 */\n\n    public external
abstract class SourceBufferList : EventTarget {\n        open val length: Int\n        open var onaddsourcebuffer: ((Event) ->
dynamic)?\n        open var onremovesourcebuffer: ((Event) ->
dynamic)?\n    }\n\n    @Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n    @kotlin.internal.InlineOnly\n    public inline operator fun SourceBufferList.get(index:
Int): SourceBuffer? = asDynamic()[index]\n\n    /* please, don't implement this interface!
 */\n\n    @JsName(\"null\")\n    @Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n    public external
interface ReadyState {\n        companion object\n    }\n\n    public inline val ReadyState.Companion.CLOSED: ReadyState
get() = \"closed\".asDynamic().unsafeCast<ReadyState>()\n\n    public inline val ReadyState.Companion.OPEN:
ReadyState get() = \"open\".asDynamic().unsafeCast<ReadyState>()\n\n    public inline val
ReadyState.Companion.ENDED: ReadyState get() = \"ended\".asDynamic().unsafeCast<ReadyState>()\n\n    /*
please, don't implement this interface!
 */\n\n    @JsName(\"null\")\n    @Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n    public
external interface EndOfStreamError {\n        companion object\n    }\n\n    public inline val
EndOfStreamError.Companion.NETWORK: EndOfStreamError get() =
\"network\".asDynamic().unsafeCast<EndOfStreamError>()\n\n    public inline val
EndOfStreamError.Companion.DECODE: EndOfStreamError get() =
\"decode\".asDynamic().unsafeCast<EndOfStreamError>()\n\n    /* please, don't implement this interface!
 */\n\n    @JsName(\"null\")\n    @Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\n    public external
interface AppendMode {\n        companion object\n    }\n\n    public inline val AppendMode.Companion.SEGMENTS:
AppendMode get() = \"segments\".asDynamic().unsafeCast<AppendMode>()\n\n    public inline val
AppendMode.Companion.SEQUENCE: AppendMode get() =
\"sequence\".asDynamic().unsafeCast<AppendMode>()\"/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be

```

found in the license/LICENSE.txt

```
file.\n *\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.pointerevents\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\n\npublic external interface PointerEventInit : MouseEventInit {\n\n    var pointerId: Int? /* = 0 */\n        get() = definedExternally\n        set(value) = definedExternally\n\n    var width: Double? /* = 1.0 */\n        get() = definedExternally\n        set(value) = definedExternally\n\n    var height: Double? /* = 1.0 */\n        get() = definedExternally\n        set(value) = definedExternally\n\n    var pressure: Float? /* = 0f */\n        get() = definedExternally\n        set(value) = definedExternally\n\n    var tangentialPressure: Float? /* = 0f */\n        get() = definedExternally\n        set(value) = definedExternally\n\n    var tiltX: Int? /* = 0 */\n        get() = definedExternally\n        set(value) = definedExternally\n\n    var tiltY: Int? /* = 0 */\n        get() = definedExternally\n        set(value) = definedExternally\n\n    var twist: Int? /* = 0 */\n        get() = definedExternally\n        set(value) = definedExternally\n\n    var pointerType: String? /* = \"\" */\n        get() = definedExternally\n        set(value) = definedExternally\n\n    var isPrimary: Boolean? /* = false */\n        get() = definedExternally\n        set(value) = definedExternally\n\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun PointerEventInit(pointerId: Int? = 0, width: Double? = 1.0, height: Double? = 1.0, pressure: Float? = 0f, tangentialPressure: Float? = 0f, tiltX: Int? = 0, tiltY: Int? = 0, twist: Int? = 0, pointerType: String? = \"\", isPrimary: Boolean? = false, screenX: Int? = 0, screenY: Int? = 0, clientX: Int? = 0, clientY: Int? = 0, button: Short? = 0, buttons: Short? = 0, relatedTarget: EventTarget? = null, region: String? = null, ctrlKey: Boolean? = false, shiftKey: Boolean? = false, altKey: Boolean? = false, metaKey: Boolean? = false, modifierAltGraph: Boolean? = false, modifierCapsLock: Boolean? = false, modifierFn: Boolean? = false, modifierFnLock: Boolean? = false, modifierHyper: Boolean? = false, modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? = false, modifierSuper: Boolean? = false, modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false, view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): PointerEventInit {\n    val o = js(\"({})\")\n    o[\"pointerId\"] = pointerId\n    o[\"width\"] = width\n    o[\"height\"] = height\n    o[\"pressure\"] = pressure\n    o[\"tangentialPressure\"] = tangentialPressure\n    o[\"tiltX\"] = tiltX\n    o[\"tiltY\"] = tiltY\n    o[\"twist\"] = twist\n    o[\"pointerType\"] = pointerType\n    o[\"isPrimary\"] = isPrimary\n    o[\"screenX\"] = screenX\n    o[\"screenY\"] = screenY\n    o[\"clientX\"] = clientX\n    o[\"clientY\"] = clientY\n    o[\"button\"] = button\n    o[\"buttons\"] = buttons\n    o[\"relatedTarget\"] = relatedTarget\n    o[\"region\"] = region\n    o[\"ctrlKey\"] = ctrlKey\n    o[\"shiftKey\"] = shiftKey\n    o[\"altKey\"] = altKey\n    o[\"metaKey\"] = metaKey\n    o[\"modifierAltGraph\"] = modifierAltGraph\n    o[\"modifierCapsLock\"] = modifierCapsLock\n    o[\"modifierFn\"] = modifierFn\n    o[\"modifierFnLock\"] = modifierFnLock\n    o[\"modifierHyper\"] = modifierHyper\n    o[\"modifierNumLock\"] = modifierNumLock\n    o[\"modifierScrollLock\"] = modifierScrollLock\n    o[\"modifierSuper\"] = modifierSuper\n    o[\"modifierSymbol\"] = modifierSymbol\n    o[\"modifierSymbolLock\"] = modifierSymbolLock\n    o[\"view\"] = view\n    o[\"detail\"] = detail\n    o[\"bubbles\"] = bubbles\n    o[\"cancelable\"] = cancelable\n    o[\"composed\"] = composed\n    return o\n}\n\n/**\n * Exposes the JavaScript [PointerEvent](https://developer.mozilla.org/en/docs/Web/API/PointerEvent) to Kotlin\n\n *\npublic external open class PointerEvent(type: String, eventInitDict: PointerEventInit = definedExternally) : MouseEvent {\n\n    open val pointerId: Int\n\n    open val width: Double\n\n    open val height: Double\n\n    open val pressure: Float\n\n    open val tangentialPressure: Float\n\n    open val tiltX: Int\n\n    open val tiltY: Int\n\n    open val twist: Int\n\n    open val pointerType: String\n\n    open val isPrimary: Boolean\n\n\n    companion object {\n\n        val NONE: Short\n\n        val CAPTURING_PHASE: Short\n\n        val AT_TARGET: Short\n\n        val BUBBLING_PHASE: Short\n\n    }\n\n}, \"/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n *\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.svg\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport
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org.w3c.dom.*\nimport org.w3c.dom.css.*\n\n/**\n * Exposes the JavaScript
[SVGElement](https://developer.mozilla.org/en/docs/Web/API/SVGElement) to Kotlin\n */\npublic external
abstract class SVGElement : Element, ElementCSSInlineStyle, GlobalEventHandlers, SVGElementInstance {\n
open val dataset: DOMStringMap\n open val ownerSVGElement: SVGSVGElement?\n open val
viewportElement: SVGElement?\n open var tabIndex: Int\n fun focus()\n fun blur()\n\n companion object
{\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n
val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val
ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE:
Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val
DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val
DOCUMENT_POSITION_DISCONNECTED: Short\n
val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING:
Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val
DOCUMENT_POSITION_CONTAINED_BY: Short\n val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n\npublic external interface
SVGBoundingBoxOptions {\n var fill: Boolean? /* = true */\n get() = definedExternally\n set(value) =
definedExternally\n var stroke: Boolean? /* = false */\n get() = definedExternally\n set(value) =
definedExternally\n var markers: Boolean? /* = false */\n get() = definedExternally\n set(value) =
definedExternally\n var clipped: Boolean? /* = false */\n get() = definedExternally\n set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun SVGBoundingBoxOptions(fill:
Boolean? = true, stroke: Boolean? = false, markers: Boolean? = false, clipped: Boolean?
= false): SVGBoundingBoxOptions {\n val o = js(\"({})\")\n o[\"fill\"] = fill\n o[\"stroke\"] = stroke\n
o[\"markers\"] = markers\n o[\"clipped\"] = clipped\n return o\n}\n\n/**\n * Exposes the JavaScript
[SVGGraphicsElement](https://developer.mozilla.org/en/docs/Web/API/SVGGraphicsElement) to Kotlin\n
*/\npublic external abstract class SVGGraphicsElement : SVGElement, SVGTests {\n open val transform:
SVGAnimatedTransformList\n fun getBBox(options: SVGBoundingBoxOptions = definedExternally):
DOMRect\n fun getCTM(): DOMMatrix?\n fun getScreenCTM(): DOMMatrix?\n\n companion object {\n
val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val
CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE:
Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val
DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val
DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val
DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript
[SVGGeometryElement](https://developer.mozilla.org/en/docs/Web/API/SVGGeometryElement) to Kotlin\n
*/\npublic external abstract class SVGGeometryElement : SVGGraphicsElement {\n open val pathLength:
SVGAnimatedNumber\n fun isPointInFill(point: DOMPoint): Boolean\n fun isPointInStroke(point: DOMPoint):
Boolean\n fun getTotalLength(): Float\n fun getPointAtLength(distance: Float): DOMPoint\n\n companion
object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE:
Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE:
Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val
COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n
val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val
DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n

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    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[SVGNumber](https://developer.mozilla.org/en/docs/Web/API/SVGNumber) to Kotlin\n\n*\n\npublic external
abstract class SVGNumber {\n    open var value: Float\n}\n\n/**\n * Exposes the JavaScript
[SVGLength](https://developer.mozilla.org/en/docs/Web/API/SVGLength) to Kotlin\n\n*\n\npublic external abstract
class SVGLength {\n    open val unitType: Short\n    open
    var value: Float\n    open var valueInSpecifiedUnits: Float\n    open var valueAsString: String\n    fun
newValueSpecifiedUnits(unitType: Short, valueInSpecifiedUnits: Float)\n    fun convertToSpecifiedUnits(unitType:
Short)\n\n    companion object {\n        val SVG_LENGTHTYPE_UNKNOWN: Short\n        val
SVG_LENGTHTYPE_NUMBER: Short\n        val SVG_LENGTHTYPE_PERCENTAGE: Short\n        val
SVG_LENGTHTYPE_EMS: Short\n        val SVG_LENGTHTYPE_EXS: Short\n        val
SVG_LENGTHTYPE_PX: Short\n        val SVG_LENGTHTYPE_CM: Short\n        val
SVG_LENGTHTYPE_MM: Short\n        val SVG_LENGTHTYPE_IN: Short\n        val SVG_LENGTHTYPE_PT:
Short\n        val SVG_LENGTHTYPE_PC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[SVGAngle](https://developer.mozilla.org/en/docs/Web/API/SVGAngle) to Kotlin\n\n*\n\npublic external abstract
class SVGAngle {\n    open val unitType: Short\n    open var value: Float\n    open var valueInSpecifiedUnits:
Float\n    open var valueAsString: String\n    fun
newValueSpecifiedUnits(unitType: Short, valueInSpecifiedUnits: Float)\n    fun
convertToSpecifiedUnits(unitType: Short)\n\n    companion object {\n        val SVG_ANGLETYPE_UNKNOWN:
Short\n        val SVG_ANGLETYPE_UNSPECIFIED: Short\n        val SVG_ANGLETYPE_DEG: Short\n        val
SVG_ANGLETYPE_RAD: Short\n        val SVG_ANGLETYPE_GRAD: Short\n    }\n}\n\n\npublic external abstract
class SVGNameList {\n    open val length: Int\n    open val numberOfItems: Int\n    fun clear()\n    fun
initialize(newItem: dynamic): dynamic\n    fun insertItemBefore(newItem: dynamic, index: Int): dynamic\n    fun
replaceItem(newItem: dynamic, index: Int): dynamic\n    fun removeItem(index: Int): dynamic\n    fun
appendItem(newItem: dynamic): dynamic\n    fun getItem(index: Int):
dynamic\n}\n\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n\n@kotlin.internal.InlineOnly\n\npublic inline operator fun SVGNameList.get(index: Int):
dynamic = asDynamic()[index]\n\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n\n@kotlin.internal.InlineOnly\n\npublic inline operator fun SVGNameList.set(index: Int,
newItem: dynamic) { asDynamic()[index] = newItem }\n\n\n/**\n * Exposes the JavaScript
[SVGNumberList](https://developer.mozilla.org/en/docs/Web/API/SVGNumberList) to Kotlin\n\n*\n\npublic external
abstract class SVGNumberList {\n    open val length: Int\n    open val numberOfItems: Int\n    fun clear()\n    fun
initialize(newItem: SVGNumber): SVGNumber\n    fun insertItemBefore(newItem: SVGNumber, index: Int):
SVGNumber\n    fun replaceItem(newItem: SVGNumber, index: Int): SVGNumber\n    fun removeItem(index: Int):
SVGNumber\n    fun appendItem(newItem: SVGNumber): SVGNumber\n    fun getItem(index: Int):
SVGNumber\n}\n\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n\n@kotlin.internal.InlineOnly\n\npublic inline operator fun SVGNumberList.get(index:
Int): SVGNumber? = asDynamic()[index]\n\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n\n@kotlin.internal.InlineOnly\n\npublic
inline operator fun SVGNumberList.set(index: Int, newItem: SVGNumber) { asDynamic()[index] = newItem
}\n\n\n/**\n * Exposes the JavaScript
[SVGLengthList](https://developer.mozilla.org/en/docs/Web/API/SVGLengthList) to Kotlin\n\n*\n\npublic external
abstract class SVGLengthList {\n    open val length: Int\n    open val numberOfItems: Int\n    fun clear()\n    fun
initialize(newItem: SVGLength): SVGLength\n    fun insertItemBefore(newItem: SVGLength, index: Int):
SVGLength\n    fun replaceItem(newItem: SVGLength, index: Int): SVGLength\n    fun removeItem(index: Int):
SVGLength\n    fun appendItem(newItem: SVGLength): SVGLength\n    fun getItem(index: Int):
SVGLength\n}\n\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n\n@kotlin.internal.InlineOnly\n\npublic inline operator fun SVGLengthList.get(index:

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Int): SVGLength? = asDynamic()[index]\n\n@Suppress("\INVISIBLE_REFERENCE",
\INVISIBLE_MEMBER")\n\n@kotlin.internal.InlineOnly\n\npublic inline operator fun SVGLengthList.set(index:
Int, newItem: SVGLength) { asDynamic()[index] = newItem }\n\n/**\n * Exposes the JavaScript
[SVGAnimatedBoolean](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedBoolean) to Kotlin\n
*\n\npublic external abstract class SVGAnimatedBoolean {\n    open var baseVal: Boolean\n    open val animVal:
Boolean\n}\n\n/**\n * Exposes the JavaScript
[SVGAnimatedEnumeration](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedEnumeration) to
Kotlin\n
*\n\npublic external abstract class SVGAnimatedEnumeration {\n    open var baseVal: Short\n    open val
animVal: Short\n}\n\n/**\n * Exposes the JavaScript
[SVGAnimatedInteger](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedInteger) to Kotlin\n
*\n\npublic external abstract class SVGAnimatedInteger {\n    open var baseVal: Int\n    open val animVal:
Int\n}\n\n/**\n * Exposes the JavaScript
[SVGAnimatedNumber](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedNumber) to Kotlin\n
*\n\npublic external abstract class SVGAnimatedNumber
{\n    open var baseVal: Float\n    open val animVal: Float\n}\n\n/**\n * Exposes the JavaScript
[SVGAnimatedLength](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedLength) to Kotlin\n
*\n\npublic external abstract class SVGAnimatedLength {\n    open val baseVal: SVGLength\n    open val animVal:
SVGLength\n}\n\n/**\n * Exposes the JavaScript
[SVGAnimatedAngle](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedAngle) to Kotlin\n
*\n\npublic external abstract class SVGAnimatedAngle {\n    open val baseVal: SVGAngle\n    open val animVal:
SVGAngle\n}\n\n/**\n * Exposes the JavaScript
[SVGAnimatedString](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedString) to Kotlin\n
*\n\npublic external abstract class SVGAnimatedString {\n    open var baseVal: String\n    open val animVal:
String\n}\n\n/**\n * Exposes the JavaScript
[SVGAnimatedRect](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedRect)
to Kotlin\n
*\n\npublic external abstract class SVGAnimatedRect
{\n    open val baseVal: DOMRect\n    open val animVal: DOMRectReadOnly\n}\n\n/**\n * Exposes the
JavaScript
[SVGAnimatedNumberList](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedNumberList)
to Kotlin\n
*\n\npublic external abstract class SVGAnimatedNumberList {\n    open val baseVal: SVGNumberList\n
open val animVal: SVGNumberList\n}\n\n/**\n * Exposes the JavaScript
[SVGAnimatedLengthList](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedLengthList) to Kotlin\n
*\n\npublic external abstract class SVGAnimatedLengthList {\n    open val baseVal: SVGLengthList\n
open val animVal: SVGLengthList\n}\n\n/**\n * Exposes the JavaScript
[SVGStringList](https://developer.mozilla.org/en/docs/Web/API/SVGStringList) to Kotlin\n
*\n\npublic external abstract class SVGStringList {\n    open val length: Int\n    open val numberOfItems:
Int\n    fun clear()\n    fun initialize(newItem: String): String\n    fun insertItemBefore(newItem: String,
index: Int): String\n    fun replaceItem(newItem:
String, index: Int): String\n    fun removeItem(index: Int): String\n    fun appendItem(newItem: String):
String\n    fun getItem(index: Int): String\n}\n\n@Suppress("\INVISIBLE_REFERENCE",
\INVISIBLE_MEMBER")\n\n@kotlin.internal.InlineOnly\n\npublic inline operator fun SVGStringList.get(index:
Int): String? = asDynamic()[index]\n\n@Suppress("\INVISIBLE_REFERENCE",
\INVISIBLE_MEMBER")\n\n@kotlin.internal.InlineOnly\n\npublic inline operator fun SVGStringList.set(index:
Int, newItem: String) { asDynamic()[index] = newItem }\n\n/**\n * Exposes the JavaScript
[SVGUnitTypes](https://developer.mozilla.org/en/docs/Web/API/SVGUnitTypes) to Kotlin\n
*\n\n@Suppress("\NESTED_CLASS_IN_EXTERNAL_INTERFACE")\n\npublic external interface SVGUnitTypes
{\n    companion object {\n        val SVG_UNIT_TYPE_UNKNOWN: Short\n        val
SVG_UNIT_TYPE_USERSPACEONUSE: Short\n        val SVG_UNIT_TYPE_OBJECTBOUNDINGBOX:
Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[SVGTTests](https://developer.mozilla.org/en/docs/Web/API/SVGTTests)

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to Kotlin\n */\npublic external interface SVGTests {\n    val requiredExtensions: SVGStringList\n    val\n    systemLanguage: SVGStringList\n}\n\npublic external interface SVGFitToViewBox {\n    val viewBox:\n    SVGAnimatedRect\n    val preserveAspectRatio: SVGAnimatedPreserveAspectRatio\n}\n\n/**\n * Exposes the\n    JavaScript [SVGZoomAndPan](https://developer.mozilla.org/en/docs/Web/API/SVGZoomAndPan) to Kotlin\n */\n\n@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")\npublic external interface\n    SVGZoomAndPan {\n    var zoomAndPan: Short\n\n    companion object {\n        val\n        SVG_ZOOMANDPAN_UNKNOWN: Short\n        val SVG_ZOOMANDPAN_DISABLE: Short\n        val\n        SVG_ZOOMANDPAN_MAGNIFY: Short\n    }\n}\n\n/**\n * Exposes the JavaScript\n    [SVGURIReference](https://developer.mozilla.org/en/docs/Web/API/SVGURIReference) to Kotlin\n */\n\npublic\n    external interface SVGURIReference {\n    val href: SVGAnimatedString\n}\n\n/**\n * Exposes the JavaScript\n    [SVGSVGElement](https://developer.mozilla.org/en/docs/Web/API/SVGSVGElement)\n    to Kotlin\n */\n\npublic external abstract class SVGSVGElement : SVGGraphicsElement, SVGFitToViewBox,\n    SVGZoomAndPan, WindowEventHandlers {\n    open val x: SVGAnimatedLength\n    open val y:\n    SVGAnimatedLength\n    open val width: SVGAnimatedLength\n    open val height: SVGAnimatedLength\n    open\n    var currentScale: Float\n    open val currentTranslate: DOMPointReadOnly\n    fun getIntersectionList(rect:\n    DOMRectReadOnly, referenceElement: SVGElement?): NodeList\n    fun getEnclosureList(rect:\n    DOMRectReadOnly, referenceElement: SVGElement?): NodeList\n    fun checkIntersection(element: SVGElement,\n    rect: DOMRectReadOnly): Boolean\n    fun checkEnclosure(element: SVGElement, rect: DOMRectReadOnly):\n    Boolean\n    fun deselectAll()\n    fun createSVGNumber(): SVGNumber\n    fun createSVGLength(): SVGLength\n    fun\n    createSVGAngle(): SVGAngle\n    fun createSVGPoint(): DOMPoint\n    fun createSVGMatrix():\n    DOMMatrix\n    fun createSVGRect(): DOMRect\n\n    fun createSVGTransform(): SVGTransform\n    fun createSVGTransformFromMatrix(matrix:\n    DOMMatrixReadOnly): SVGTransform\n    fun getElementById(elementId: String): Element\n    fun\n    suspendRedraw(maxWaitMilliseconds: Int): Int\n    fun unsuspendRedraw(suspendHandleID: Int)\n    fun\n    unsuspendRedrawAll()\n    fun forceRedraw()\n\n    companion object {\n        val\n        SVG_ZOOMANDPAN_UNKNOWN: Short\n        val SVG_ZOOMANDPAN_DISABLE: Short\n        val\n        SVG_ZOOMANDPAN_MAGNIFY: Short\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE:\n        Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val\n        ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val\n        PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val\n        DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val\n        DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val\n        DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING:\n        Short\n        val DOCUMENT_POSITION_FOLLOWING: Short\n        val\n        DOCUMENT_POSITION_CONTAINS: Short\n        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val\n        DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the\n    JavaScript [SVGElement](https://developer.mozilla.org/en/docs/Web/API/SVGElement) to Kotlin\n */\n\npublic\n    external abstract class SVGElement : SVGGraphicsElement {\n    companion object {\n        val\n        ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val\n        CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE:\n        Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val\n        DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val\n        DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val\n        DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n        val\n        DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS:\n        Short\n        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val\n        DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\npublic external abstract class\n    SVGUnknownElement : SVGGraphicsElement {\n    companion object {\n        val\n        ELEMENT_NODE: Short\n    }\n}

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val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n
val ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n    val
PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY:
Short\n    val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes
the JavaScript [SVGDefsElement](https://developer.mozilla.org/en/docs/Web/API/SVGDefsElement) to Kotlin\n
*/\npublic external abstract class SVGDefsElement : SVGGraphicsElement {\n    companion object {\n        val
ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val
CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE:
Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n        }\n}\n\n/**\n * Exposes the JavaScript
[SVGDescElement](https://developer.mozilla.org/en/docs/Web/API/SVGDescElement) to Kotlin\n
*/\npublic
external abstract class SVGDescElement : SVGElement {\n    companion object {\n        val ELEMENT_NODE:
Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE:
Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC:
Short\n        }\n}\n\n/**\n * Exposes the JavaScript
[SVGMetadataElement](https://developer.mozilla.org/en/docs/Web/API/SVGMetadataElement) to Kotlin\n
*/\npublic external abstract class SVGMetadataElement : SVGElement {\n    companion object {\n        val
ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val
CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE:
Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC:
Short\n        }\n}\n\n/**\n * Exposes the JavaScript
[SVGTitleElement](https://developer.mozilla.org/en/docs/Web/API/SVGTitleElement) to Kotlin\n
*/\npublic
external abstract class SVGTitleElement : SVGElement {\n    companion object {\n        val ELEMENT_NODE:
Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE:
Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val

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PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n
* Exposes the JavaScript
[SVGSymbolElement](https://developer.mozilla.org/en/docs/Web/API/SVGSymbolElement) to Kotlin\n */\npublic
external abstract class SVGSymbolElement : SVGGraphicsElement, SVGFitToViewBox {\n    companion object
{\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n
val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val
ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE:
Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n        }\n}\n\n/**\n
* Exposes the JavaScript [SVGUseElement](https://developer.mozilla.org/en/docs/Web/API/SVGUseElement) to
Kotlin\n */\npublic external abstract class SVGUseElement : SVGGraphicsElement, SVGURIReference {\n    open
val x: SVGAnimatedLength\n    open val y: SVGAnimatedLength\n    open val width: SVGAnimatedLength\n
open val height: SVGAnimatedLength\n    open val instanceRoot: SVGElement?\n    open val
animatedInstanceRoot: SVGElement?\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val
ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING:
Short\n        val DOCUMENT_POSITION_FOLLOWING: Short\n        val
DOCUMENT_POSITION_CONTAINS: Short\n        val DOCUMENT_POSITION_CONTAINED_BY: Short\n
        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n        }\n}\n\npublic external open class
SVGUseElementShadowRoot : ShadowRoot {\n    companion object {\n        val ELEMENT_NODE: Short\n
val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n
val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY:
Short\n        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n        }\n}\n\npublic external
interface SVGElementInstance {\n    val correspondingElement: SVGElement?\n    get() = definedExternally\n
val correspondingUseElement: SVGUseElement?\n    get() = definedExternally\n}\n\npublic external open class
ShadowAnimation(source: dynamic, newTarget: dynamic) {\n    open val sourceAnimation: dynamic\n}\n\n/**\n
* Exposes the JavaScript [SVGSwitchElement](https://developer.mozilla.org/en/docs/Web/API/SVGSwitchElement)
to Kotlin\n */\npublic external abstract class SVGSwitchElement : SVGGraphicsElement {\n    companion object

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{\n    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n
val CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val
ENTITY_NODE: Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE:
Short\n    val DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE:
Short\n    val DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n } \n} \n\npublic external interface
GetSVGDocument {\n    fun getSVGDocument(): Document\n} \n\n/** \n * Exposes the JavaScript
[SVGStyleElement](https://developer.mozilla.org/en/docs/Web/API/SVGStyleElement) to Kotlin \n * \n\npublic
external abstract class SVGStyleElement : SVGElement, LinkStyle {\n    open var type: String\n    open var media:
String\n    open var title: String\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val
ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE: Short\n        val
ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE:
Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    } \n} \n\n/** \n * Exposes the JavaScript
[SVGTransform](https://developer.mozilla.org/en/docs/Web/API/SVGTransform) to Kotlin \n * \n\npublic external
abstract class SVGTransform {\n    open val type: Short\n    open val matrix: DOMMatrix\n    open val angle:
Float\n    fun setMatrix(matrix: DOMMatrixReadOnly)\n    fun setTranslate(tx: Float, ty: Float)\n    fun setScale(sx:
Float, sy: Float)\n    fun setRotate(angle: Float, cx: Float, cy:
Float)\n    fun setSkewX(angle: Float)\n    fun setSkewY(angle: Float)\n\n    companion object {\n        val
SVG_TRANSFORM_UNKNOWN: Short\n        val SVG_TRANSFORM_MATRIX: Short\n        val
SVG_TRANSFORM_TRANSLATE: Short\n        val SVG_TRANSFORM_SCALE: Short\n        val
SVG_TRANSFORM_ROTATE: Short\n        val SVG_TRANSFORM_SKEWX: Short\n        val
SVG_TRANSFORM_SKEWY: Short\n    } \n} \n\n/** \n * Exposes the JavaScript
[SVGTransformList](https://developer.mozilla.org/en/docs/Web/API/SVGTransformList) to Kotlin \n * \n\npublic
external abstract class SVGTransformList {\n    open val length: Int\n    open val numberOfItems: Int\n    fun
clear()\n    fun initialize(newItem: SVGTransform): SVGTransform\n    fun insertItemBefore(newItem:
SVGTransform, index: Int): SVGTransform\n    fun replaceItem(newItem: SVGTransform, index: Int):
SVGTransform\n    fun removeItem(index: Int): SVGTransform\n    fun appendItem(newItem: SVGTransform):
SVGTransform\n    fun createSVGTransformFromMatrix(matrix:
DOMMatrixReadOnly): SVGTransform\n    fun consolidate(): SVGTransform?\n    fun getItem(index: Int):
SVGTransform\n} \n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER") \n\n@kotlin.internal.InlineOnly \n\npublic inline operator fun SVGTransformList.get(index:
Int): SVGTransform? = asDynamic()[index] \n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER") \n\n@kotlin.internal.InlineOnly \n\npublic inline operator fun SVGTransformList.set(index:
Int, newItem: SVGTransform) { asDynamic()[index] = newItem } \n\n/** \n * Exposes the JavaScript
[SVGAnimatedTransformList](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedTransformList) to
Kotlin \n * \n\npublic external abstract class SVGAnimatedTransformList {\n    open val baseVal:
SVGTransformList\n    open val animVal: SVGTransformList\n} \n\n/** \n * Exposes the JavaScript
[SVGPreserveAspectRatio](https://developer.mozilla.org/en/docs/Web/API/SVGPreserveAspectRatio) to Kotlin \n * \n\npublic external abstract class SVGPreserveAspectRatio

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{\n open var align: Short\n open var meetOrSlice: Short\n\n companion object {\n val
SVG_PRESERVEASPECTRATIO_UNKNOWN: Short\n val SVG_PRESERVEASPECTRATIO_NONE:
Short\n val SVG_PRESERVEASPECTRATIO_XMINYMIN: Short\n val
SVG_PRESERVEASPECTRATIO_XMIDYMIN: Short\n val
SVG_PRESERVEASPECTRATIO_XMAXYMIN: Short\n val
SVG_PRESERVEASPECTRATIO_XMINYMID: Short\n val
SVG_PRESERVEASPECTRATIO_XMIDYMID: Short\n val
SVG_PRESERVEASPECTRATIO_XMAXYMID: Short\n val
SVG_PRESERVEASPECTRATIO_XMINYMAX: Short\n val
SVG_PRESERVEASPECTRATIO_XMIDYMAX: Short\n val
SVG_PRESERVEASPECTRATIO_XMAXYMAX: Short\n val SVG_MEETORSLICE_UNKNOWN: Short\n
val SVG_MEETORSLICE_MEET: Short\n val SVG_MEETORSLICE_SLICE: Short\n }\n}\n\n/**\n *
Exposes the JavaScript
[SVGAnimatedPreserveAspectRatio](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedPreserveAspect
Ratio) to Kotlin\n */\npublic external abstract class
SVGAnimatedPreserveAspectRatio {\n open val baseVal: SVGPreserveAspectRatio\n open val animVal:
SVGPreserveAspectRatio\n}\n\n/**\n * Exposes the JavaScript
[SVGPathElement](https://developer.mozilla.org/en/docs/Web/API/SVGPathElement) to Kotlin\n */\npublic
external abstract class SVGPathElement : SVGGeometryElement {\n companion object {\n val
ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val
CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE:
Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val
DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val
DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val
DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n
val
DOCUMENT_POSITION_CONTAINED_BY: Short\n val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript
[SVGRectElement](https://developer.mozilla.org/en/docs/Web/API/SVGRectElement) to Kotlin\n */\npublic
external abstract class SVGRectElement : SVGGeometryElement {\n open val x: SVGAnimatedLength\n open
val y: SVGAnimatedLength\n open val width: SVGAnimatedLength\n open val height: SVGAnimatedLength\n
open val rx: SVGAnimatedLength\n open val ry: SVGAnimatedLength\n\n companion object {\n val
ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val
CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE:
Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val
DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val
DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n
val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING:
Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val
DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n
val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the
JavaScript [SVGCircleElement](https://developer.mozilla.org/en/docs/Web/API/SVGCircleElement) to Kotlin\n
*/\npublic external abstract class SVGCircleElement : SVGGeometryElement {\n open val cx:
SVGAnimatedLength\n open val cy: SVGAnimatedLength\n open val r: SVGAnimatedLength\n\n companion
object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE:
Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val
ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE:

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Short\n    val DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE:
Short\n    val DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[SVGEllipseElement](https://developer.mozilla.org/en/docs/Web/API/SVGEllipseElement) to Kotlin\n */\npublic
external abstract class SVGEllipseElement : SVGGeometryElement {\n    open val cx: SVGAnimatedLength\n
open val cy: SVGAnimatedLength\n    open val rx: SVGAnimatedLength\n    open val ry: SVGAnimatedLength\n\n
companion object {\n    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val
TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE:
Short\n    val ENTITY_NODE: Short\n
        val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[SVGLineElement](https://developer.mozilla.org/en/docs/Web/API/SVGLineElement) to Kotlin\n */\npublic
external abstract class SVGLineElement : SVGGeometryElement {\n    open val x1: SVGAnimatedLength\n    open
val y1: SVGAnimatedLength\n    open val x2: SVGAnimatedLength\n    open val y2: SVGAnimatedLength\n\n
companion object {\n    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val
TEXT_NODE:
Short\n    val CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val
ENTITY_NODE: Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE:
Short\n    val DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[SVGMeshElement](https://developer.mozilla.org/en/docs/Web/API/SVGMeshElement) to Kotlin\n */\npublic
external abstract class SVGMeshElement : SVGGeometryElement, SVGURIReference {\n    companion object {\n
        val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE:
Short\n    val CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val
ENTITY_NODE: Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE:
Short\n    val DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[SVGAnimatedPoints](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedPoints) to Kotlin\n */\npublic
external interface SVGAnimatedPoints {\n    val points: SVGPointList\n    val animatedPoints:
SVGPointList\n}\n\npublic external abstract class SVGPointList {\n    open val length: Int\n
    open val numberOfItems: Int\n    fun clear()\n    fun initialize(newItem: DOMPoint): DOMPoint\n    fun
insertItemBefore(newItem: DOMPoint, index: Int): DOMPoint\n    fun replaceItem(newItem: DOMPoint, index:

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Int): DOMPoint\n fun removeItem(index: Int): DOMPoint\n fun addItem(newItem: DOMPoint):
DOMPoint\n fun getItem(index: Int): DOMPoint\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGPointList.get(index: Int):
DOMPoint? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGPointList.set(index: Int,
newItem: DOMPoint) { asDynamic()[index] = newItem }\n\n/**\n * Exposes the JavaScript
[SVGPolylineElement](https://developer.mozilla.org/en/docs/Web/API/SVGPolylineElement) to Kotlin\n
*/\npublic external abstract class SVGPolylineElement : SVGGeometryElement, SVGAnimatedPoints {\n
companion object {\n val
ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val
CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE:
Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val
DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val
DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val
DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript
[SVGPolygonElement](https://developer.mozilla.org/en/docs/Web/API/SVGPolygonElement) to Kotlin\n
*/\npublic external abstract class SVGPolygonElement : SVGGeometryElement, SVGAnimatedPoints {\n
companion object {\n
val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val
CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE:
Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val
DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val
DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val
DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript
[SVGTextContentElement](https://developer.mozilla.org/en/docs/Web/API/SVGTextContentElement) to Kotlin\n
*/\npublic external abstract class SVGTextContentElement : SVGGraphicsElement {\n open val textLength:
SVGAnimatedLength\n open val lengthAdjust: SVGAnimatedEnumeration\n fun getNumberOfChars(): Int\n
fun getComputedTextLength(): Float\n fun getSubStringLength(charnum: Int, nchars: Int): Float\n fun
getStartPositionOfChar(charnum: Int): DOMPoint\n fun getEndPositionOfChar(charnum: Int): DOMPoint\n fun
getExtentOfChar(charnum: Int): DOMRect\n fun getRotationOfChar(charnum: Int): Float\n fun
getCharNumAtPosition(point: DOMPoint): Int\n fun selectSubString(charnum: Int, nchars: Int)\n\n companion
object {\n val LENGTHADJUST_UNKNOWN: Short\n val LENGTHADJUST_SPACING: Short\n
val LENGTHADJUST_SPACINGANDGLYPHS: Short\n val ELEMENT_NODE: Short\n val
ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val
ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val
PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val
DOCUMENT_NODE: Short\n
val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val
NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val
DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n
val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY:
Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes

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the JavaScript

[SVGTextPositioningElement](https://developer.mozilla.org/en/docs/Web/API/SVGTextPositioningElement) to Kotlin\n \*\\npublic external abstract class SVGTextPositioningElement : SVGTextContentElement {\n open val x: SVGAnimatedLengthList\n open val y: SVGAnimatedLengthList\n open val dx: SVGAnimatedLengthList\n open val dy: SVGAnimatedLengthList\n open val rotate: SVGAnimatedNumberList\n\n companion object {\n val LENGTHADJUST\_UNKNOWN: Short\n val LENGTHADJUST\_SPACING: Short\n val LENGTHADJUST\_SPACINGANDGLYPHS:

Short\n val ELEMENT\_NODE: Short\n val ATTRIBUTE\_NODE: Short\n val TEXT\_NODE: Short\n val CDATA\_SECTION\_NODE: Short\n val ENTITY\_REFERENCE\_NODE: Short\n val ENTITY\_NODE: Short\n val PROCESSING\_INSTRUCTION\_NODE: Short\n val COMMENT\_NODE: Short\n val DOCUMENT\_NODE: Short\n val DOCUMENT\_TYPE\_NODE: Short\n val DOCUMENT\_FRAGMENT\_NODE: Short\n val NOTATION\_NODE: Short\n val DOCUMENT\_POSITION\_DISCONNECTED: Short\n val DOCUMENT\_POSITION\_PRECEDING: Short\n val DOCUMENT\_POSITION\_FOLLOWING: Short\n val DOCUMENT\_POSITION\_CONTAINS: Short\n val DOCUMENT\_POSITION\_CONTAINED\_BY: Short\n val

DOCUMENT\_POSITION\_IMPLEMENTATION\_SPECIFIC: Short\n }\\n}\\n/\*\*\n \* Exposes the JavaScript

[SVGTextElement](https://developer.mozilla.org/en/docs/Web/API/SVGTextElement) to Kotlin\n \*\\npublic external abstract class SVGTextElement : SVGTextPositioningElement {\n companion

object {\n val LENGTHADJUST\_UNKNOWN: Short\n val LENGTHADJUST\_SPACING: Short\n val LENGTHADJUST\_SPACINGANDGLYPHS: Short\n val ELEMENT\_NODE: Short\n val ATTRIBUTE\_NODE: Short\n val TEXT\_NODE: Short\n val CDATA\_SECTION\_NODE: Short\n val ENTITY\_REFERENCE\_NODE: Short\n val ENTITY\_NODE: Short\n val PROCESSING\_INSTRUCTION\_NODE: Short\n val COMMENT\_NODE: Short\n val DOCUMENT\_NODE: Short\n val DOCUMENT\_TYPE\_NODE: Short\n val DOCUMENT\_FRAGMENT\_NODE: Short\n val NOTATION\_NODE: Short\n val DOCUMENT\_POSITION\_DISCONNECTED: Short\n val DOCUMENT\_POSITION\_PRECEDING: Short\n val DOCUMENT\_POSITION\_FOLLOWING: Short\n val DOCUMENT\_POSITION\_CONTAINS: Short\n val DOCUMENT\_POSITION\_CONTAINED\_BY: Short\n val

DOCUMENT\_POSITION\_IMPLEMENTATION\_SPECIFIC: Short\n }\\n}\\n/\*\*\n \* Exposes the JavaScript

[SVGTSpanElement](https://developer.mozilla.org/en/docs/Web/API/SVGTSpanElement)

to Kotlin\n \*\\npublic external abstract class SVGTSpanElement : SVGTextPositioningElement {\n companion object {\n val LENGTHADJUST\_UNKNOWN: Short\n val LENGTHADJUST\_SPACING: Short\n val LENGTHADJUST\_SPACINGANDGLYPHS: Short\n val ELEMENT\_NODE: Short\n val ATTRIBUTE\_NODE: Short\n val TEXT\_NODE: Short\n val CDATA\_SECTION\_NODE: Short\n val ENTITY\_REFERENCE\_NODE: Short\n val ENTITY\_NODE: Short\n val PROCESSING\_INSTRUCTION\_NODE: Short\n val COMMENT\_NODE: Short\n val DOCUMENT\_NODE: Short\n val DOCUMENT\_TYPE\_NODE: Short\n val DOCUMENT\_FRAGMENT\_NODE: Short\n val NOTATION\_NODE: Short\n val DOCUMENT\_POSITION\_DISCONNECTED: Short\n val DOCUMENT\_POSITION\_PRECEDING: Short\n val DOCUMENT\_POSITION\_FOLLOWING: Short\n val DOCUMENT\_POSITION\_CONTAINS: Short\n val DOCUMENT\_POSITION\_CONTAINED\_BY: Short\n val

DOCUMENT\_POSITION\_IMPLEMENTATION\_SPECIFIC: Short\n }\\n}\\n/\*\*\n \* Exposes the JavaScript

[SVGTextPathElement](https://developer.mozilla.org/en/docs/Web/API/SVGTextPathElement) to Kotlin\n

\*\\npublic external abstract class SVGTextPathElement : SVGTextContentElement, SVGURIReference {\n open val startOffset: SVGAnimatedLength\n open val method: SVGAnimatedEnumeration\n open val spacing: SVGAnimatedEnumeration\n\n companion object {\n val TEXTPATH\_METHODTYPE\_UNKNOWN: Short\n val TEXTPATH\_METHODTYPE\_ALIGN: Short\n val

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TEXTPATH_METHODTYPE_STRETCH: Short\n    val TEXTPATH_SPACINGTYPE_UNKNOWN: Short\n
    val TEXTPATH_SPACINGTYPE_AUTO: Short\n    val TEXTPATH_SPACINGTYPE_EXACT: Short\n
val LENGTHADJUST_UNKNOWN: Short\n    val LENGTHADJUST_SPACING: Short\n    val
LENGTHADJUST_SPACINGANDGLYPHS: Short\n    val ELEMENT_NODE: Short\n    val
ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val
ENTITY_REFERENCE_NODE:
Short\n    val ENTITY_NODE: Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val
COMMENT_NODE: Short\n    val DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n
    val DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }n}\n\n/**\n * Exposes the JavaScript
[SVGImageElement](https://developer.mozilla.org/en/docs/Web/API/SVGImageElement) to Kotlin\n */\npublic
external abstract class SVGImageElement : SVGGraphicsElement, SVGURIReference,
HTMLOrSVGImageElement {\n    open val x: SVGAnimatedLength\n    open val y: SVGAnimatedLength\n    open
val width: SVGAnimatedLength\n    open val height: SVGAnimatedLength\n    open val preserveAspectRatio:
SVGAnimatedPreserveAspectRatio\n    open var crossOrigin: String?\n\n    companion object {\n        val
ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val
CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE:
Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }n}\n\n/**\n * Exposes the JavaScript
[SVGForeignObjectElement](https://developer.mozilla.org/en/docs/Web/API/SVGForeignObjectElement)
to Kotlin\n */\npublic external abstract class SVGForeignObjectElement : SVGGraphicsElement {\n    open val x:
SVGAnimatedLength\n    open val y: SVGAnimatedLength\n    open val width: SVGAnimatedLength\n    open val
height: SVGAnimatedLength\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val
ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC:
Short\n    }n}\n\npublic external abstract class SVGMarkerElement : SVGElement, SVGFitToViewBox {\n    open
val refX: SVGAnimatedLength\n    open val refY: SVGAnimatedLength\n    open val markerUnits:
SVGAnimatedEnumeration\n    open val markerWidth: SVGAnimatedLength\n    open val markerHeight:
SVGAnimatedLength\n    open val orientType: SVGAnimatedEnumeration\n    open val orientAngle:
SVGAnimatedAngle\n    open var orient: String\n    fun setOrientToAuto()\n    fun setOrientToAngle(angle:
SVGAngle)\n\n    companion object {\n        val SVG_MARKERUNITS_UNKNOWN: Short\n        val
SVG_MARKERUNITS_USERSPACEONUSE: Short\n        val SVG_MARKERUNITS_STROKEWIDTH:
Short\n        val SVG_MARKER_ORIENT_UNKNOWN: Short\n        val SVG_MARKER_ORIENT_AUTO:

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Short\n    val SVG_MARKER_ORIENT_ANGLE: Short\n    val ELEMENT_NODE: Short\n    val
ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val
ENTITY_REFERENCE_NODE: Short\n
    val ENTITY_NODE: Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val
COMMENT_NODE: Short\n    val DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n
    val DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[SVGSolidcolorElement](https://developer.mozilla.org/en/docs/Web/API/SVGSolidcolorElement) to Kotlin\n
*\npublic external abstract class SVGSolidcolorElement : SVGElement {\n    companion object {\n    val
ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val
CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n
    val ENTITY_NODE: Short\n    val PROCESSING_INSTRUCTION_NODE: Short\n    val
COMMENT_NODE: Short\n    val DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n
    val DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[SVGGradientElement](https://developer.mozilla.org/en/docs/Web/API/SVGGradientElement) to Kotlin\n
*\npublic external abstract class SVGGradientElement : SVGElement, SVGURIReference, SVGUnitTypes {\n
open val gradientUnits: SVGAnimatedEnumeration\n    open val gradientTransform: SVGAnimatedTransformList\n
open val spreadMethod: SVGAnimatedEnumeration\n\n    companion object {\n
    val SVG_SPREADMETHOD_UNKNOWN: Short\n    val SVG_SPREADMETHOD_PAD: Short\n    val
SVG_SPREADMETHOD_REFLECT: Short\n    val SVG_SPREADMETHOD_REPEAT: Short\n    val
SVG_UNIT_TYPE_UNKNOWN: Short\n    val SVG_UNIT_TYPE_USERSPACEONUSE: Short\n    val
SVG_UNIT_TYPE_OBJECTBOUNDINGBOX: Short\n    val ELEMENT_NODE: Short\n    val
ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n    val CDATA_SECTION_NODE: Short\n    val
ENTITY_REFERENCE_NODE: Short\n    val ENTITY_NODE: Short\n    val
PROCESSING_INSTRUCTION_NODE: Short\n    val COMMENT_NODE: Short\n    val
DOCUMENT_NODE: Short\n    val DOCUMENT_TYPE_NODE: Short\n    val
DOCUMENT_FRAGMENT_NODE: Short\n    val NOTATION_NODE: Short\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\n    val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n
    val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the
JavaScript
[SVGLinearGradientElement](https://developer.mozilla.org/en/docs/Web/API/SVGLinearGradientElement) to
Kotlin\n
*\npublic external abstract class SVGLinearGradientElement : SVGGradientElement {\n    open val x1:
SVGAnimatedLength\n    open val y1: SVGAnimatedLength\n    open val x2: SVGAnimatedLength\n    open val
y2: SVGAnimatedLength\n\n    companion object {\n    val SVG_SPREADMETHOD_UNKNOWN: Short\n
val SVG_SPREADMETHOD_PAD: Short\n    val SVG_SPREADMETHOD_REFLECT: Short\n    val
SVG_SPREADMETHOD_REPEAT: Short\n    val SVG_UNIT_TYPE_UNKNOWN: Short\n    val
SVG_UNIT_TYPE_USERSPACEONUSE: Short\n    val SVG_UNIT_TYPE_OBJECTBOUNDINGBOX:
Short\n    val ELEMENT_NODE: Short\n    val ATTRIBUTE_NODE: Short\n    val TEXT_NODE: Short\n
    val CDATA_SECTION_NODE: Short\n    val ENTITY_REFERENCE_NODE: Short\n    val

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    val DOCUMENT_POSITION_FOLLOWING: Short\n    val DOCUMENT_POSITION_CONTAINS: Short\n
    val DOCUMENT_POSITION_CONTAINED_BY: Short\n    val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }n}\n\n/**\n * Exposes the JavaScript
[SVGViewElement](https://developer.mozilla.org/en/docs/Web/API/SVGViewElement) to Kotlin\n *\npublic
external abstract class SVGViewElement : SVGElement, SVGFitToViewBox, SVGZoomAndPan {\n    companion
object {\n        val SVG_ZOOMANDPAN_UNKNOWN: Short\n        val SVG_ZOOMANDPAN_DISABLE:
Short\n        val SVG_ZOOMANDPAN_MAGNIFY: Short\n        val ELEMENT_NODE: Short\n        val
ATTRIBUTE_NODE:
Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
        val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
        val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }n}\n\n", /*\n * Copyright 2010-2021
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n *\n\n// NOTE: THIS FILE IS AUTO-
GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for
details\n\npackage org.w3c.files\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport
org.w3c.dom.events.*\nimport org.w3c.xhr.*\n\n/**\n * Exposes the JavaScript
[Blob](https://developer.mozilla.org/en/docs/Web/API/Blob) to Kotlin\n *\npublic external open class
Blob(blobParts: Array<dynamic> = definedExternally, options: BlobPropertyBag = definedExternally) :
MediaProvider, ImageBitmapSource {\n    open val size: Number\n    open val type: String\n    open val isClosed:
Boolean\n    fun slice(start: Int = definedExternally, end: Int = definedExternally, contentType: String =
definedExternally): Blob\n    fun close()\n}\n\npublic external interface BlobPropertyBag {\n    var type: String? /*
= \"\" */\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun BlobPropertyBag(type: String? = \"\"):
BlobPropertyBag {\n    val o = js(\"({})\")\n
o[\"type\"] = type\n    return o\n}\n\n/**\n * Exposes the JavaScript
[File](https://developer.mozilla.org/en/docs/Web/API/File) to Kotlin\n *\npublic external open class File(fileBits:
Array<dynamic>, fileName: String, options: FilePropertyBag = definedExternally) : Blob {\n    open val name:
String\n    open val lastModified: Int\n}\n\npublic external interface FilePropertyBag : BlobPropertyBag {\n    var
lastModified: Int?\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun FilePropertyBag(lastModified: Int? =
undefined, type: String? = \"\"): FilePropertyBag {\n    val o = js(\"({})\")\n    o[\"lastModified\"] = lastModified\n
o[\"type\"] = type\n    return o\n}\n\n/**\n * Exposes the JavaScript
[FileList](https://developer.mozilla.org/en/docs/Web/API/FileList) to Kotlin\n *\npublic external abstract class
FileList : ItemArrayLike<File>
{\n    override fun item(index: Int): File?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun FileList.get(index: Int): File?
= asDynamic()[index]\n\n/**\n * Exposes the JavaScript
[FileReader](https://developer.mozilla.org/en/docs/Web/API/FileReader) to Kotlin\n *\npublic external open class
FileReader : EventTarget {\n    open val readyState: Short\n    open val result: dynamic\n    open val error:
dynamic\n    var onloadstart: ((ProgressEvent) -> dynamic)?\n    var onprogress: ((ProgressEvent) -> dynamic)?\n

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var onload: ((Event) -> dynamic)?\n var onabort: ((Event) -> dynamic)?\n var onerror: ((Event) -> dynamic)?\n
var onloadend: ((Event) -> dynamic)?\n fun readAsArrayBuffer(blob: Blob)\n fun readAsBinaryString(blob:
Blob)\n fun readAsText(blob: Blob, label: String = definedExternally)\n fun readAsDataURL(blob: Blob)\n
fun abort()\n\n companion object {\n    val EMPTY: Short\n        val LOADING: Short\n        val DONE: Short\n    }\n}\n\n/*\n * Exposes the JavaScript
[FileReaderSync](https://developer.mozilla.org/en/docs/Web/API/FileReaderSync) to Kotlin\n */\n\npublic external
open class FileReaderSync {\n    fun readAsArrayBuffer(blob: Blob): ArrayBuffer\n    fun readAsBinaryString(blob:
Blob): String\n    fun readAsText(blob: Blob, label: String = definedExternally): String\n    fun
readAsDataURL(blob: Blob): String\n}\n\n/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n\n// See
github.com/kotlin/dukat for details\n\npackage org.w3c.notifications\n\nimport kotlin.js.*\nimport
org.khronos.webgl.*\nimport org.w3c.dom.events.*\nimport org.w3c.workers.*\n\n/*\n * Exposes the JavaScript
[Notification](https://developer.mozilla.org/en/docs/Web/API/Notification)
to Kotlin\n */\n\npublic external open class Notification(title: String, options: NotificationOptions =
definedExternally) : EventTarget {\n    var onclick: ((MouseEvent) -> dynamic)?\n    var onerror: ((Event) ->
dynamic)?\n    open val title: String\n    open val dir: NotificationDirection\n    open val lang: String\n    open val
body: String\n    open val tag: String\n    open val image: String\n    open val icon: String\n    open val badge:
String\n    open val sound: String\n    open val vibrate: Array<out Int>\n    open val timestamp: Number\n    open val
renotify: Boolean\n    open val silent: Boolean\n    open val noscreen: Boolean\n    open val requireInteraction:
Boolean\n    open val sticky: Boolean\n    open val data: Any?\n    open val actions: Array<out
NotificationAction>\n    fun close()\n\n    companion object {\n        val permission: NotificationPermission\n
val maxActions: Int\n        fun requestPermission(deprecatedCallback: (NotificationPermission)
-> Unit = definedExternally): Promise<NotificationPermission>\n    }\n}\n\npublic external interface
NotificationOptions {\n    var dir: NotificationDirection? /* = NotificationDirection.AUTO */\n    get() =
definedExternally\n    set(value) = definedExternally\n    var lang: String? /* = \"\" */\n    get() =
definedExternally\n    set(value) = definedExternally\n    var body: String? /* = \"\" */\n    get() =
definedExternally\n    set(value) = definedExternally\n    var tag: String? /* = \"\" */\n    get() =
definedExternally\n    set(value) = definedExternally\n    var image: String?\n    get() = definedExternally\n
set(value) = definedExternally\n    var icon: String?\n    get() = definedExternally\n    set(value) =
definedExternally\n    var badge: String?\n    get() = definedExternally\n    set(value) = definedExternally\n
var sound: String?\n    get() = definedExternally\n    set(value) = definedExternally\n
    var vibrate: dynamic\n    get() = definedExternally\n    set(value) = definedExternally\n    var timestamp:
Number?\n    get() = definedExternally\n    set(value) = definedExternally\n    var renotify: Boolean? /* = false
*/\n    get() = definedExternally\n    set(value) = definedExternally\n    var silent: Boolean? /* = false */\n
get() = definedExternally\n    set(value) = definedExternally\n    var noscreen: Boolean? /* = false */\n    get() =
definedExternally\n    set(value) = definedExternally\n    var requireInteraction: Boolean? /* = false */\n    get() =
definedExternally\n    set(value) = definedExternally\n    var sticky: Boolean? /* = false */\n    get() =
definedExternally\n    set(value) = definedExternally\n    var data: Any? /* = null */\n    get() =
definedExternally\n    set(value) = definedExternally\n    var actions: Array<NotificationAction>? /* = arrayOf()
*/\n    get() = definedExternally\n
    set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun NotificationOptions(dir:
NotificationDirection? = NotificationDirection.AUTO, lang: String? = \"\", body: String? = \"\", tag: String? = \"\",
image: String? = undefined, icon: String? = undefined, badge: String? = undefined, sound: String? = undefined,
vibrate: dynamic = undefined, timestamp: Number? = undefined, renotify: Boolean? = false, silent: Boolean? =
false, noscreen: Boolean? = false, requireInteraction: Boolean? = false, sticky: Boolean? = false, data: Any? = null,
actions: Array<NotificationAction>? = arrayOf()): NotificationOptions {\n    val o = js(\"({})\")\n    o[\"dir\"] = dir\n

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    o["lang"] = lang\n    o["body"] = body\n    o["tag"] = tag\n    o["image"] = image\n    o["icon"] = icon\n
    o["badge"] = badge\n    o["sound"] = sound\n    o["vibrate"] = vibrate\n    o["timestamp"] = timestamp\n
    o["renotify"] = renotify\n    o["silent"] = silent\n    o["noscreen"] = noscreen\n    o["requireInteraction"] =
requireInteraction\n    o["sticky"] = sticky\n    o["data"] = data\n    o["actions"] = actions\n    return
o\n}\n\npublic external interface NotificationAction {\n    var action: String?\n    var title: String?\n    var icon:
String?\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun NotificationAction(action: String?,
title: String?, icon: String? = undefined): NotificationAction {\n    val o = js("{}")\n    o["action"] = action\n
o["title"] = title\n    o["icon"] = icon\n    return o\n}\n\npublic external interface GetNotificationOptions {\n    var
tag: String? /* = "" */\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic
inline fun GetNotificationOptions(tag: String? = ""): GetNotificationOptions {\n    val o = js("{}")\n
o["tag"] = tag\n    return o\n}\n\n/**\n * Exposes the JavaScript
[NotificationEvent](https://developer.mozilla.org/en/docs/Web/API/NotificationEvent) to Kotlin\n */\npublic
external open class NotificationEvent(type: String, eventInitDict: NotificationEventInit) : ExtendableEvent {\n
open val notification: Notification\n    open val action: String\n\n    companion object {\n        val NONE: Short\n
val CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n        val BUBBLING_PHASE: Short\n
}\n}\n\npublic external interface NotificationEventInit : ExtendableEventInit {\n    var notification: Notification?\n
var action: String? /* = "" */\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun
NotificationEventInit(notification: Notification?, action: String? = "", bubbles: Boolean? = false, cancelable:
Boolean? = false, composed: Boolean? = false): NotificationEventInit {\n    val o = js("{}")\n    o["notification"]
= notification\n    o["action"] = action\n    o["bubbles"] = bubbles\n    o["cancelable"] = cancelable\n
o["composed"] = composed\n    return o\n}\n\n/* please, don't implement this interface!
*/\n\n@JsName("null")\n@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")\npublic external
interface NotificationPermission {\n    companion object\n}\n\npublic inline val
NotificationPermission.Companion.DEFAULT: NotificationPermission get() =
"default".asDynamic().unsafeCast<NotificationPermission>()\n\npublic inline val
NotificationPermission.Companion.DENIED: NotificationPermission get() =
"denied".asDynamic().unsafeCast<NotificationPermission>()\n\npublic inline val
NotificationPermission.Companion.GRANTED: NotificationPermission get() =
"granted".asDynamic().unsafeCast<NotificationPermission>()\n\n/*
please, don't implement this interface!
*/\n\n@JsName("null")\n@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")\npublic external
interface NotificationDirection {\n    companion object\n}\n\npublic inline val
NotificationDirection.Companion.AUTO: NotificationDirection get() =
"auto".asDynamic().unsafeCast<NotificationDirection>()\n\npublic inline val
NotificationDirection.Companion.LTR: NotificationDirection get() =
"ltr".asDynamic().unsafeCast<NotificationDirection>()\n\npublic inline val
NotificationDirection.Companion.RTL: NotificationDirection get() =
"rtl".asDynamic().unsafeCast<NotificationDirection>()"}\n\n/* Copyright 2010-2021 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n\n// See
github.com/kotlin/dukat for details\n\npackage

```

```

org.w3c.workers\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport
org.w3c.dom.events.*\nimport org.w3c.fetch.*\nimport org.w3c.notifications.*\n\n/**\n * Exposes the JavaScript
[ServiceWorker](https://developer.mozilla.org/en/docs/Web/API/ServiceWorker) to Kotlin\n */\npublic external
abstract class ServiceWorker : EventTarget, AbstractWorker, UnionMessagePortOrServiceWorker,
UnionClientOrMessagePortOrServiceWorker {\n    open val scriptURL: String\n    open val state:
ServiceWorkerState\n    open var onstatechange: ((Event) -> dynamic)?\n    fun postMessage(message: Any?,
transfer: Array<dynamic> = definedExternally)\n}\n\n/**\n * Exposes the JavaScript
[ServiceWorkerRegistration](https://developer.mozilla.org/en/docs/Web/API/ServiceWorkerRegistration) to
Kotlin\n */\npublic external abstract class ServiceWorkerRegistration : EventTarget {\n    open val installing:
ServiceWorker?\n    open val waiting: ServiceWorker?\n    open val active: ServiceWorker?\n
    open val scope: String\n    open var onupdatefound: ((Event) -> dynamic)?\n    open val APISpace: dynamic\n
fun update(): Promise<Unit>\n    fun unregister(): Promise<Boolean>\n    fun showNotification(title: String,
options: NotificationOptions = definedExternally): Promise<Unit>\n    fun getNotifications(filter:
GetNotificationOptions = definedExternally): Promise<Array<Notification>>\n    fun methodName():
Promise<dynamic>\n}\n\n/**\n * Exposes the JavaScript
[ServiceWorkerContainer](https://developer.mozilla.org/en/docs/Web/API/ServiceWorkerContainer) to Kotlin\n
*/\npublic external abstract class ServiceWorkerContainer : EventTarget {\n    open val controller:
ServiceWorker?\n    open val ready: Promise<ServiceWorkerRegistration>\n    open var oncontrollerchange:
((Event) -> dynamic)?\n    open var onmessage: ((MessageEvent) -> dynamic)?\n    fun register(scriptURL: String,
options: RegistrationOptions = definedExternally): Promise<ServiceWorkerRegistration>\n    fun
getRegistration(clientURL: String = definedExternally): Promise<Any?>\n    fun getRegistrations():
Promise<Array<ServiceWorkerRegistration>>\n    fun startMessages()\n}\n\npublic external interface
RegistrationOptions {\n    var scope: String?\n    get() = definedExternally\n    set(value) = definedExternally\n
var type: WorkerType? /* = WorkerType.CLASSIC */\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun RegistrationOptions(scope: String? =
undefined, type: WorkerType? = WorkerType.CLASSIC): RegistrationOptions {\n    val o = js(\"({})\")\n
o[\"scope\"] = scope\n    o[\"type\"] = type\n    return o\n}\n\n/**\n * Exposes the JavaScript
[ServiceWorkerMessageEvent](https://developer.mozilla.org/en/docs/Web/API/ServiceWorkerMessageEvent) to
Kotlin\n */\npublic external open class ServiceWorkerMessageEvent(type: String, eventInitDict:
ServiceWorkerMessageEventInit
= definedExternally) : Event {\n    open val data: Any?\n    open val origin: String\n    open val lastEventId: String\n
open val source: UnionMessagePortOrServiceWorker?\n    open val ports: Array<out MessagePort>?\n\n
companion object {\n    val NONE: Short\n    val CAPTURING_PHASE: Short\n    val AT_TARGET:
Short\n    val BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface ServiceWorkerMessageEventInit :
EventInit {\n    var data: Any?\n    get() = definedExternally\n    set(value) = definedExternally\n    var origin:
String?\n    get() = definedExternally\n    set(value) = definedExternally\n    var lastEventId: String?\n    get()
= definedExternally\n    set(value) = definedExternally\n    var source: UnionMessagePortOrServiceWorker?\n
get() = definedExternally\n    set(value) = definedExternally\n    var ports: Array<MessagePort>?\n    get() =
definedExternally\n    set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ServiceWorkerMessageEventInit(data:
Any? = undefined, origin: String? = undefined, lastEventId: String? = undefined, source:
UnionMessagePortOrServiceWorker? = undefined, ports: Array<MessagePort>? = undefined, bubbles: Boolean? =
false, cancelable: Boolean? = false, composed: Boolean? = false): ServiceWorkerMessageEventInit {\n    val o =
js(\"({})\")\n    o[\"data\"] = data\n    o[\"origin\"] = origin\n    o[\"lastEventId\"] = lastEventId\n    o[\"source\"] =
source\n    o[\"ports\"] = ports\n    o[\"bubbles\"] = bubbles\n    o[\"cancelable\"] = cancelable\n    o[\"composed\"] =
composed\n    return o\n}\n\n/**\n * Exposes the JavaScript
[ServiceWorkerGlobalScope](https://developer.mozilla.org/en/docs/Web/API/ServiceWorkerGlobalScope) to

```



```

Kotlin\n */\npublic external abstract class ServiceWorkerGlobalScope : WorkerGlobalScope {\n  open val clients:
Clients\n
  open val registration: ServiceWorkerRegistration\n  open var oninstall: ((Event) -> dynamic)?\n  open var
onactivate: ((Event) -> dynamic)?\n  open var onfetch: ((FetchEvent) -> dynamic)?\n  open var onforeignfetch:
((Event) -> dynamic)?\n  open var onmessage: ((MessageEvent) -> dynamic)?\n  open var onnotificationclick:
((NotificationEvent) -> dynamic)?\n  open var onnotificationclose: ((NotificationEvent) -> dynamic)?\n  open var
onfunctionalevent: ((Event) -> dynamic)?\n  fun skipWaiting(): Promise<Unit>\n}\n\n/**\n * Exposes the
JavaScript [Client](https://developer.mozilla.org/en/docs/Web/API/Client) to Kotlin\n */\npublic external abstract
class Client : UnionClientOrMessagePortOrServiceWorker {\n  open val url: String\n  open val frameType:
FrameType\n  open val id: String\n  fun postMessage(message: Any?, transfer: Array<dynamic> =
definedExternally)\n}\n\n/**\n * Exposes the JavaScript
[WindowClient](https://developer.mozilla.org/en/docs/Web/API/WindowClient)
to Kotlin\n */\npublic external abstract class WindowClient : Client {\n  open val visibilityState: dynamic\n  open
val focused: Boolean\n  fun focus(): Promise<WindowClient>\n  fun navigate(url: String):
Promise<WindowClient>\n}\n\n/**\n * Exposes the JavaScript
[Clients](https://developer.mozilla.org/en/docs/Web/API/Clients) to Kotlin\n */\npublic external abstract class
Clients {\n  fun get(id: String): Promise<Any?>\n  fun matchAll(options: ClientQueryOptions =
definedExternally): Promise<Array<Client>>\n  fun openWindow(url: String): Promise<WindowClient?>\n  fun
claim(): Promise<Unit>\n}\n\npublic external interface ClientQueryOptions {\n  var includeUncontrolled:
Boolean? /* = false */\n  get() = definedExternally\n  set(value) = definedExternally\n  var type:
ClientType? /* = ClientType.WINDOW */\n  get() = definedExternally\n  set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic
inline fun ClientQueryOptions(includeUncontrolled: Boolean? = false, type: ClientType? = ClientType.WINDOW):
ClientQueryOptions {\n  val o = js(\"({})\")\n  o[\"includeUncontrolled\"] = includeUncontrolled\n  o[\"type\"] =
type\n  return o\n}\n\n/**\n * Exposes the JavaScript
[ExtendableEvent](https://developer.mozilla.org/en/docs/Web/API/ExtendableEvent) to Kotlin\n */\npublic external
open class ExtendableEvent(type: String, eventInitDict: ExtendableEventInit = definedExternally) : Event {\n  fun
waitUntil(f: Promise<Any?>)\n\n  companion object {\n    val NONE: Short\n    val CAPTURING_PHASE:
Short\n    val AT_TARGET: Short\n    val BUBBLING_PHASE: Short\n  }\n}\n\npublic external interface
ExtendableEventInit : EventInit\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ExtendableEventInit(bubbles:
Boolean? = false, cancelable: Boolean? = false, composed: Boolean?
= false): ExtendableEventInit {\n  val o = js(\"({})\")\n  o[\"bubbles\"] = bubbles\n  o[\"cancelable\"] =
cancelable\n  o[\"composed\"] = composed\n  return o\n}\n\n/**\n * Exposes the JavaScript
[InstallEvent](https://developer.mozilla.org/en/docs/Web/API/InstallEvent) to Kotlin\n */\npublic external open
class InstallEvent(type: String, eventInitDict: ExtendableEventInit = definedExternally) : ExtendableEvent {\n  fun
registerForeignFetch(options: ForeignFetchOptions)\n\n  companion object {\n    val NONE: Short\n    val
CAPTURING_PHASE: Short\n    val AT_TARGET: Short\n    val BUBBLING_PHASE: Short\n  }\n}\n\npublic external interface ForeignFetchOptions {\n  var scopes: Array<String>?\n  var origins:
Array<String>?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ForeignFetchOptions(scopes:
Array<String>?, origins: Array<String>?): ForeignFetchOptions {\n  val o = js(\"({})\")\n
  o[\"scopes\"] = scopes\n  o[\"origins\"] = origins\n  return o\n}\n\n/**\n * Exposes the JavaScript
[FetchEvent](https://developer.mozilla.org/en/docs/Web/API/FetchEvent) to Kotlin\n */\npublic external open class
FetchEvent(type: String, eventInitDict: FetchEventInit) : ExtendableEvent {\n  open val request: Request\n  open
val clientId: String?\n  open val isReload: Boolean\n  fun respondWith(r: Promise<Response>)\n\n  companion
object {\n    val NONE: Short\n    val CAPTURING_PHASE: Short\n    val AT_TARGET: Short\n    val

```

```

BUBBLING_PHASE: Short<Int>()}\n\npublic external interface FetchEventInit : ExtendableEventInit {\n    var
request: Request?\n    var clientId: String? /* = null */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var isReload: Boolean? /* = false */\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic
inline fun FetchEventInit(request: Request?, clientId: String? = null, isReload: Boolean? = false, bubbles: Boolean?
= false, cancelable: Boolean? = false, composed: Boolean? = false): FetchEventInit {\n    val o = js("{}")\n
o["request"] = request\n    o["clientId"] = clientId\n    o["isReload"] = isReload\n    o["bubbles"] = bubbles\n
o["cancelable"] = cancelable\n    o["composed"] = composed\n    return o\n}\n\npublic external open class
ForeignFetchEvent(type: String, eventInitDict: ForeignFetchEventInit) : ExtendableEvent {\n    open val request:
Request\n    open val origin: String\n    fun respondWith(r: Promise<ForeignFetchResponse>)\n\n    companion
object {\n        val NONE: Short<Int>\n        val CAPTURING_PHASE: Short<Int>\n        val AT_TARGET: Short<Int>\n
        val BUBBLING_PHASE: Short<Int>}\n\n    public external interface ForeignFetchEventInit : ExtendableEventInit {\n
var request: Request?\n    var origin: String? /* = "null"
*/\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun ForeignFetchEventInit(request:
Request?, origin: String? = "null", bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? =
false): ForeignFetchEventInit {\n    val o = js("{}")\n    o["request"] = request\n    o["origin"] = origin\n
o["bubbles"] = bubbles\n    o["cancelable"] = cancelable\n    o["composed"] = composed\n    return
o\n}\n\npublic external interface ForeignFetchResponse {\n    var response: Response?\n    var origin: String?\n
get() = definedExternally\n    set(value) = definedExternally\n    var headers: Array<String>?\n    get() =
definedExternally\n    set(value) = definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun ForeignFetchResponse(response:
Response?,
origin: String? = undefined, headers: Array<String>? = undefined): ForeignFetchResponse {\n    val o =
js("{}")\n    o["response"] = response\n    o["origin"] = origin\n    o["headers"] = headers\n    return
o\n}\n\n/**\n * Exposes the JavaScript
[ExtendableMessageEvent](https://developer.mozilla.org/en/docs/Web/API/ExtendableMessageEvent) to Kotlin\n
*/\n\npublic external open class ExtendableMessageEvent(type: String, eventInitDict: ExtendableMessageEventInit =
definedExternally) : ExtendableEvent {\n    open val data: Any?\n    open val origin: String\n    open val lastEventId:
String\n    open val source: UnionClientOrMessagePortOrServiceWorker?\n    open val ports: Array<out
MessagePort>?\n\n    companion object {\n        val NONE: Short<Int>\n        val CAPTURING_PHASE: Short<Int>\n
        val AT_TARGET: Short<Int>\n        val BUBBLING_PHASE: Short<Int>}\n\n    public external interface
ExtendableMessageEventInit : ExtendableEventInit {\n    var data: Any?\n        get() =
definedExternally\n        set(value) = definedExternally\n    var origin: String?\n        get() = definedExternally\n
set(value) = definedExternally\n    var lastEventId: String?\n        get() = definedExternally\n        set(value) =
definedExternally\n    var source: UnionClientOrMessagePortOrServiceWorker?\n        get() = definedExternally\n
set(value) = definedExternally\n    var ports: Array<MessagePort>?\n        get() = definedExternally\n
set(value) = definedExternally\n}\n\n@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\n@kotlin.internal.InlineOnly\npublic inline fun ExtendableMessageEventInit(data:
Any? = undefined, origin: String? = undefined, lastEventId: String? = undefined, source:
UnionClientOrMessagePortOrServiceWorker? = undefined, ports: Array<MessagePort>? = undefined, bubbles:
Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): ExtendableMessageEventInit {\n
val o = js("{}")\n    o["data"] = data\n
o["origin"] = origin\n    o["lastEventId"] = lastEventId\n    o["source"] = source\n    o["ports"] = ports\n
o["bubbles"] = bubbles\n    o["cancelable"] = cancelable\n    o["composed"] = composed\n    return
o\n}\n\n/**\n * Exposes the JavaScript [Cache](https://developer.mozilla.org/en/docs/Web/API/Cache) to Kotlin\n

```

```

*/\npublic external abstract class Cache {\n  fun match(request: dynamic, options: CacheQueryOptions =
definedExternally): Promise<Any?>\n  fun matchAll(request: dynamic = definedExternally, options:
CacheQueryOptions = definedExternally): Promise<Array<Response>>\n  fun add(request: dynamic):
Promise<Unit>\n  fun addAll(requests: Array<dynamic>): Promise<Unit>\n  fun put(request: dynamic, response:
Response): Promise<Unit>\n  fun delete(request: dynamic, options: CacheQueryOptions = definedExternally):
Promise<Boolean>\n  fun keys(request: dynamic = definedExternally, options: CacheQueryOptions =
definedExternally): Promise<Array<Request>>\n}\n\npublic
  external interface CacheQueryOptions {\n  var ignoreSearch: Boolean? /* = false */\n    get() =
definedExternally\n    set(value) = definedExternally\n  var ignoreMethod: Boolean? /* = false */\n    get() =
definedExternally\n    set(value) = definedExternally\n  var ignoreVary: Boolean? /* = false */\n    get() =
definedExternally\n    set(value) = definedExternally\n  var cacheName: String?\n    get() =
definedExternally\n    set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun CacheQueryOptions(ignoreSearch:
Boolean? = false, ignoreMethod: Boolean? = false, ignoreVary: Boolean? = false, cacheName: String? = undefined):
CacheQueryOptions {\n  val o = js(\"({})\")\n  o[\"ignoreSearch\"] = ignoreSearch\n  o[\"ignoreMethod\"] =
ignoreMethod\n  o[\"ignoreVary\"] = ignoreVary\n  o[\"cacheName\"] = cacheName\n  return o\n}\n\npublic
  external
  interface CacheBatchOperation {\n  var type: String?\n    get() = definedExternally\n    set(value) =
definedExternally\n  var request: Request?\n    get() = definedExternally\n    set(value) = definedExternally\n
var response: Response?\n    get() = definedExternally\n    set(value) = definedExternally\n  var options:
CacheQueryOptions?\n    get() = definedExternally\n    set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun CacheBatchOperation(type: String? =
undefined, request: Request? = undefined, response: Response? = undefined, options: CacheQueryOptions? =
undefined): CacheBatchOperation {\n  val o = js(\"({})\")\n  o[\"type\"] = type\n  o[\"request\"] = request\n
o[\"response\"] = response\n  o[\"options\"] = options\n  return o\n}\n\n/*\n * Exposes the JavaScript
[CacheStorage](https://developer.mozilla.org/en/docs/Web/API/CacheStorage)
to Kotlin\n */\npublic external abstract class CacheStorage {\n  fun match(request: dynamic, options:
CacheQueryOptions = definedExternally): Promise<Any?>\n  fun has(cacheName: String): Promise<Boolean>\n
fun open(cacheName: String): Promise<Cache>\n  fun delete(cacheName: String): Promise<Boolean>\n  fun
keys(): Promise<Array<String>>\n}\n\npublic external open class FunctionalEvent : ExtendableEvent {\n
companion object {\n  val NONE: Short\n  val CAPTURING_PHASE: Short\n  val AT_TARGET:
Short\n  val BUBBLING_PHASE: Short\n  }\n}\n\npublic external interface
  UnionMessagePortOrServiceWorker\n\npublic external interface
  UnionClientOrMessagePortOrServiceWorker\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
  interface ServiceWorkerState {\n  companion object\n}\n\npublic inline val
  ServiceWorkerState.Companion.INSTALLING: ServiceWorkerState get() =
  \"installing\".asDynamic().unsafeCast<ServiceWorkerState>()\n\npublic inline val
  ServiceWorkerState.Companion.INSTALLED: ServiceWorkerState get() =
  \"installed\".asDynamic().unsafeCast<ServiceWorkerState>()\n\npublic inline val
  ServiceWorkerState.Companion.ACTIVATING: ServiceWorkerState get() =
  \"activating\".asDynamic().unsafeCast<ServiceWorkerState>()\n\npublic inline val
  ServiceWorkerState.Companion.ACTIVATED: ServiceWorkerState get() =
  \"activated\".asDynamic().unsafeCast<ServiceWorkerState>()\n\npublic inline val
  ServiceWorkerState.Companion.REDUNDANT: ServiceWorkerState get() =
  \"redundant\".asDynamic().unsafeCast<ServiceWorkerState>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external

```

```

interface FrameType {
    companion object
}

public inline val FrameType.Companion.AUXILIARY:
FrameType get() = "auxiliary".asDynamic().unsafeCast<FrameType>()

public inline val
FrameType.Companion.TOP_LEVEL:
FrameType get() = "top-level".asDynamic().unsafeCast<FrameType>()

public inline val
FrameType.Companion.NESTED: FrameType get() = "nested".asDynamic().unsafeCast<FrameType>()

public
inline val FrameType.Companion.NONE: FrameType get() =
"none".asDynamic().unsafeCast<FrameType>()

/* please, don't implement this interface!
*/

@JsName("null")
@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")
public external
interface ClientType {
    companion object
}

public inline val ClientType.Companion.WINDOW: ClientType
get() = "window".asDynamic().unsafeCast<ClientType>()

public inline val ClientType.Companion.WORKER:
ClientType get() = "worker".asDynamic().unsafeCast<ClientType>()

public inline val
ClientType.Companion.SHAREDWORKER: ClientType get() =
"sharedworker".asDynamic().unsafeCast<ClientType>()

public inline val ClientType.Companion.ALL:
ClientType get() = "all".asDynamic().unsafeCast<ClientType>()

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*/

NOTE: THIS FILE IS AUTO-GENERATED, DO NOT
EDIT!

See github.com/kotlin/dukat for details

package org.w3c.xhr

import kotlin.js.*
import org.khronos.webgl.*
import org.w3c.dom.*
import org.w3c.dom.events.*
import org.w3c.files.*

/* Exposes the JavaScript
[XMLHttpRequestEventTarget](https://developer.mozilla.org/en/docs/Web/API/XMLHttpRequestEventTarget) to
Kotlin

*/

public external abstract class XMLHttpRequestEventTarget : EventTarget {
    open var onloadstart:
((ProgressEvent) -> dynamic)?

    open var onprogress: ((ProgressEvent) -> dynamic)?

    open var onabort:
((Event) -> dynamic)?

    open var onerror: ((Event) -> dynamic)?

    open var onload: ((Event) -> dynamic)?

    open var ontimeout: ((Event) -> dynamic)?

    open var onloadend: ((Event) -> dynamic)?
}

/* Exposes the JavaScript
[XMLHttpRequest](https://developer.mozilla.org/en/docs/Web/API/XMLHttpRequest) to Kotlin

*/

public external open class XMLHttpRequest : XMLHttpRequestEventTarget {
    var onreadystatechange: ((Event) ->
dynamic)?

    open val readyState: Short

    var timeout: Int

    var withCredentials: Boolean

    open val upload:
XMLHttpRequestUpload

    open val responseURL: String

    open val status: Short

    open val statusText:
String

    var responseType: XMLHttpRequestResponseType

    open val response: Any?

    open val
responseText: String

    open val responseXML: Document?

    fun open(method: String, url: String)

    fun
open(method: String, url: String, async: Boolean, username: String? =
definedExternally, password: String? =
definedExternally)

    fun setRequestHeader(name: String, value: String)

    fun send(body: dynamic =
definedExternally)

    fun abort()

    fun getResponseHeader(name: String): String?

    fun getAllResponseHeaders(): String

    fun
overrideMimeType(mime: String)
}

/* companion object

val UNSENT: Short

val OPENED: Short

val HEADERS_RECEIVED: Short

val LOADING: Short

val DONE: Short
}

*/

/* Exposes the JavaScript [FormData](https://developer.mozilla.org/en/docs/Web/API/FormData) to Kotlin

*/

public external open class FormData(form: HTMLFormElement = definedExternally) {
    fun append(name:
String, value: String)

    fun append(name: String, value: Blob, filename: String =
definedExternally)

    fun
delete(name: String)

    fun get(name: String): dynamic

    fun getAll(name: String): Array<dynamic>

    fun
has(name: String): Boolean

    fun set(name: String, value: String)

    fun set(name: String, value: Blob, filename:
String = definedExternally)
}

/* Exposes the JavaScript
[ProgressEvent](https://developer.mozilla.org/en/docs/Web/API/ProgressEvent)
to Kotlin

*/

public external open class ProgressEvent(type: String, eventInitDict: ProgressEventInit =
definedExternally) : Event {
    open val lengthComputable: Boolean

    open val loaded: Number

    open val
total: Number

    companion object {
        val NONE: Short

        val CAPTURING_PHASE: Short

        val
AT_TARGET: Short

        val BUBBLING_PHASE: Short
    }
}

/* public external interface ProgressEventInit

```

```

: EventInit {
    var lengthComputable: Boolean? /* = false */
    get() = definedExternally
    set(value) =
    definedExternally
    var loaded: Number? /* = 0 */
    get() = definedExternally
    set(value) =
    definedExternally
    var total: Number? /* = 0 */
    get() = definedExternally
    set(value) =
    definedExternally
}
@Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")
@kotlin.internal.InlineOnly
public inline fun ProgressEventInit(lengthComputable:
Boolean? = false, loaded: Number? = 0, total:
Number? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false):
ProgressEventInit {
    val o = js("{}")
    o["lengthComputable"] = lengthComputable
    o["loaded"] =
    loaded
    o["total"] = total
    o["bubbles"] = bubbles
    o["cancelable"] = cancelable
    o["composed"] =
    composed
    return o
}
/* please, don't implement this interface!
*/
@JsName("null")
@Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")
public external
interface XMLHttpRequestResponseType {
    companion object
}
public inline val
XMLHttpRequestResponseType.Companion.EMPTY: XMLHttpRequestResponseType get() =
""
.asDynamic().unsafeCast<XMLHttpRequestResponseType>()
public inline val
XMLHttpRequestResponseType.Companion.ARRAYBUFFER: XMLHttpRequestResponseType get() =
"arraybuffer"
.asDynamic().unsafeCast<XMLHttpRequestResponseType>()
public inline val
XMLHttpRequestResponseType.Companion.BLOB: XMLHttpRequestResponseType get() =
"blob"
.asDynamic().unsafeCast<XMLHttpRequestResponseType>()
public
inline val XMLHttpRequestResponseType.Companion.DOCUMENT: XMLHttpRequestResponseType get() =
"document"
.asDynamic().unsafeCast<XMLHttpRequestResponseType>()
public inline val
XMLHttpRequestResponseType.Companion.JSON: XMLHttpRequestResponseType get() =
"json"
.asDynamic().unsafeCast<XMLHttpRequestResponseType>()
public inline val
XMLHttpRequestResponseType.Companion.TEXT: XMLHttpRequestResponseType get() =
"text"
.asDynamic().unsafeCast<XMLHttpRequestResponseType>()
"package kotlin
nimport
kotlin.annotation.AnnotationTarget.
*/
*/
* This annotation marks the standard library API that is considered
experimental and is not subject to the
* [general compatibility
guarantees](https://kotlinlang.org/docs/reference/evolution/components-stability.html) given for the standard
library:
n * the behavior of such API may be changed or the API may be removed completely in any further
release.
n * > Beware
using the annotated API especially if you're developing a library, since your library might become binary
incompatible
n * with the future versions of the standard library.
n * Any usage of a declaration annotated with
`@ExperimentalStdlibApi` must be accepted either by
n * annotating that usage with the [OptIn] annotation, e.g.
`@OptIn(ExperimentalStdlibApi::class)`,
n * or by using the compiler argument
`-opt-in=kotlin.ExperimentalStdlibApi`.
n *
n * @RequiresOptIn(level =
RequiresOptIn.Level.ERROR)
n * @Retention(AnnotationRetention.BINARY)
n * @Target(CLASS,
ANNOTATION_CLASS,
PROPERTY,
FIELD,
LOCAL_VARIABLE,
VALUE_PARAMETER,
CONSTRUCTOR,
FUNCTION,
PROPERTY_GETTER,
PROPERTY_SETTER,
TYPEALIAS)
n * @MustBeDocumented
n * @SinceKotlin("1.3")
n * public annotation class
ExperimentalStdlibApi
n * , "/*
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contributors.
n * Use of this source code is governed by the Apache 2.0
license that can be found in the license/LICENSE.txt file.
n *
n * package kotlin
n * import
kotlin.annotation.AnnotationTarget.
n * import kotlin.experimental.ExperimentalTypeInference
n *
n *
n * Allows to
infer generic type arguments of a function from the calls in the annotated function parameter of that function.
n *
n *
n * When this annotation is placed on a generic function parameter of a function,
n * it enables to infer the type
arguments of that generic function from the lambda body passed to that parameter.
n *
n *
n * The calls that affect
inference are either members of the receiver type of an annotated function parameter or
n * extensions for that type.
The extensions must be themselves annotated with
`@BuilderInference`.
n *
n *
n * Example: we declare
n *
n *
n * fun
<T> sequence(@BuilderInference block: suspend SequenceScope<T>(). -> Unit): Sequence<T>
n *
n *
n * and use

```

it like

```

val result = sequence { yield("result") }

```

Here the type argument of the resulting sequence is inferred to `String` from the argument of the [SequenceScope.yield] function, that is called inside the lambda passed to [sequence].

Note: this annotation is experimental, see [ExperimentalTypeInference] on how to opt-in for it.

```

@Target(VALUE_PARAMETER, FUNCTION, PROPERTY)
@Retention(AnnotationRetention.BINARY)
@SinceKotlin("1.3")
@ExperimentalTypeInference
public annotation class BuilderInference

```

Enables overload selection based on the type of the value returned from lambda argument.

When two or more function overloads have otherwise the same parameter lists that differ only in the return type of a functional parameter, this annotation enables overload selection by the type of the value returned from the lambda function passed to this functional parameter.

Example:

```

@OverloadResolutionByLambdaReturnType
fun create(intProducer: () -> Int): Int
fun create(doubleProducer: () -> Double): Double
val newValue = create { 3.14 }

```

The annotation being applied to one of overloads allows to resolve this ambiguity by analyzing what value is returned from the lambda function.

This annotation is also used to discriminate the annotated overloads in case if overload selection still cannot choose one of them even taking in account the result of lambda parameter analysis. In that case a warning is reported.

Note: this annotation is experimental, see [ExperimentalTypeInference] on how to opt-in for it.

```

@Target(FUNCTION)
@Retention(AnnotationRetention.BINARY)
@SinceKotlin("1.4")
@ExperimentalTypeInference
public annotation class OverloadResolutionByLambdaReturnType

```

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```

package kotlin
import kotlin.annotation.AnnotationTarget
import kotlin.internal.RequireKotlin
import kotlin.internal.RequireKotlinVersionKind

```

The experimental multiplatform support API marker.

Any usage of a declaration annotated with `@ExperimentalMultiplatform` must be accepted either by annotating that usage with the [OptIn] annotation, e.g. `@OptIn(ExperimentalMultiplatform::class)`, or by using the compiler argument `-opt-in=kotlin.ExperimentalMultiplatform`.

```

@RequiresOptIn
@MustBeDocumented
@Target(CLASS, ANNOTATION_CLASS, PROPERTY, FIELD, LOCAL_VARIABLE, VALUE_PARAMETER, CONSTRUCTOR, FUNCTION, PROPERTY_GETTER, PROPERTY_SETTER, TYPEALIAS)
@Retention(AnnotationRetention.BINARY)
public annotation class ExperimentalMultiplatform

```

Marks an expected annotation class that it isn't required to have actual counterparts in all platforms.

This annotation is only applicable to `expect` annotation classes in multiplatform projects and marks that class as `"optional"`.

Optional expected class is allowed to have no corresponding actual class on the platform. Optional annotations can only be used to annotate something, not as types in signatures. If an optional annotation has no corresponding actual class on a platform, the annotation entries where it's used are simply erased when compiling code on that platform.

Note: this annotation is experimental, see [ExperimentalMultiplatform] on how to opt-in for it.

```

@Target(ANNOTATION_CLASS)
@Retention(AnnotationRetention.BINARY)
@ExperimentalMultiplatform
public annotation class OptionalExpectation

```

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```

package kotlin
import kotlin.annotation.AnnotationRetention
import kotlin.annotation.AnnotationTarget
import kotlin.reflect.KClass

```

Signals that the annotated annotation class is a marker of an API that requires an explicit opt-in.

Call sites of any declaration that is either annotated with such a marker or mentions in its signature any other declaration that requires opt-in should opt in to the API either by using [OptIn], or by being annotated with that marker themselves, effectively causing further propagation of the opt-in requirement.

The intended uses of opt-in markers include, but are not limited to the following:

- Experimental API for public preview that might change

its semantics or affect binary compatibility.  
\* - Internal declarations that should not be used outside the declaring library, but are `public` for technical reasons.  
\* - Fragile or delicate API that needs a lot of expertise to use and thus require an explicit opt-in.  
\* ## Contagiousness  
\* When a declaration is marked with an opt-in requirement, it is considered to be contagious,

meaning that all its uses or mentions in other declarations will require an explicit opt-in.  
\* A rule of thumb for propagating is the following: if the marked declaration ceases to exist, only the places with explicit opt-in (or the corresponding warning) will break. This rule does not imply transitivity, e.g. the propagation does not propagate opt-in through inlining, making it the responsibility of inline function author to mark it properly.  
\* ##

Type scopes  
\* A type is considered requiring opt-in if it is marked with an opt-in marker, or the outer declaration (class or interface) requires opt-in.  
\* Any use of any declaration that mentions such type in its signature will require an explicit opt-in, even if it is not used directly on the call site, and even if such declarations do not require opt-in directly.  
\* For example, consider the following declarations that are marked with non-propagating opt-in:  
\* ```  
\* @UnstableApi  
\* class

```
Unstable {  
    @OptIn(UnstableApi::class) fun foo(): Unstable = Unstable()  
    @OptIn(UnstableApi::class) fun bar(arg: Unstable = Unstable()) {}  
    @OptIn(UnstableApi::class) fun Unstable?.baz() {}  
} and their respective call sites:  
fun outerFun() {  
    val s = foo()  
    bar() null.baz()  
}
```

Even though call sites do not mention `Unstable` type directly, the corresponding opt-in warning or error will be triggered in each call site due to propagation contagiousness. Note that the propagation is not transitive, i.e. calls to `outerFun` itself would not trigger any further opt-in requirements.  
\* ## Lexical scopes  
\* If a type requires an opt-in, such requirement is propagated to its lexical scope and all its nested declarations.  
\* For example, for the following scope:  
\* ```  
\* @UnstableApi  
\* class Unstable {  
\* fun memberFun() = ...  
\* class NestedClass {  
\* fun nestedFun()  
\* }  
\* }

Any use of `Unstable`, `NestedClass`, or their member functions will require an explicit opt-in.  
\* ## Overridden declarations  
\* Opt-in markers are also propagated through the inheritance and interface implementation.  
\* If the base declaration requires an opt-in, overriding it requires either an explicit opt-in or propagating the opt-in requirement.  
\* See also [Kotlin language documentation](<https://kotlinlang.org/docs/opt-in-requirements.html>) for more information.  
\* @property

message to be reported on usages of API without an explicit opt-in, or empty string for the default message.  
\* The default message is: "This declaration is experimental and its usage should be marked with 'Marker' or '@OptIn(Marker::class)', where 'Marker' is the opt-in requirement marker.  
\* @property level specifies how usages of API without an explicit opt-in are reported in code.  
\* ^@Target(ANNOTATION\_CLASS)@Retention(BINARY)@SinceKotlin("1.3")\npublic annotation class RequiresOptIn(\n val message: String = "",\n val level: Level = Level.ERROR) {\n /\*\* Severity of the diagnostic that should be reported on usages which did not explicitly opted into the API either by using [OptIn] or by being annotated with the corresponding marker annotation.\n ^\n public enum class Level {\n /\*\* Specifies that a warning should be reported on incorrect usages of this API. \*\n WARNING,\n /\*\* Specifies that a compilation error should be reported on incorrect usages of this API. \*\n ERROR,\n }\n}\n/\*\* Allows to use the API denoted by the given markers in the annotated file, declaration, or expression.\n\* If a declaration is annotated with [OptIn], its usages are \*\*not\*\* required to opt in to that API.\n\* [markerClass] specifies marker annotations that require explicit opt-in. The marker annotation is not required to be itself marked with [RequiresOptIn] to enable gradual migration of API from requiring opt-in to the regular one, yet declaring such `OptIn` yields a compilation warning.  
\* See also [Kotlin language documentation](<https://kotlinlang.org/docs/opt-in-requirements.html>) for more information.  
\* @property markerClass specifies marker annotations that require explicit opt-in.  
\* @see RequiresOptIn for a detailed description of opt-in semantics and propagation rules.  
\* ^@Target(\n CLASS, PROPERTY, LOCAL\_VARIABLE, VALUE\_PARAMETER, CONSTRUCTOR, FUNCTION, PROPERTY\_GETTER, PROPERTY\_SETTER, EXPRESSION, FILE,  
TYPEALIAS)\n@Retention(SOURCE)\n@SinceKotlin("1.3")\npublic annotation class OptIn(\n vararg val

markerClass: KClass<out Annotation>\n\n/\*\*\n \* This annotation marks the experimental preview of the language feature [SubclassOptInRequired].\n \*\n \* > Note that this API is in a preview state and has a chance of being changed in the future.\n \*\n \* Do not use it if you develop a library since your library can become source incompatible\n \* with the future versions of Kotlin.\n \*\n @Target(CLASS)\n @Retention(BINARY)\n @SinceKotlin("1.8")\n public annotation class ExperimentalSubclassOptIn\n\n/\*\*\n \* Annotation that marks open for subclassing classes and interfaces, and makes implementation\n \* and extension of such declarations as requiring an explicit opt-in.\n \*\n \* When applied, any attempt to subclass the target declaration will trigger an opt-in\n \* with the corresponding level and message.\n \*\n \* The intended uses of subclass opt-in markers include, but are not limited to the following API:\n \* - Stable to use, but unstable to implement due to its further evolution.\n \* - Stable to use, but closed for 3rd-part implementations due to internal or technical reasons.\n \* - Stable to use, but delicate or fragile to implement.\n \* - Stable to use, but with a contract that may be weakened in the future in a backwards-incompatible\n \* manner for external implementations.\n \*\n \* Contrary to regular [RequiresOptIn], there are three ways to opt-in into the subclassing requirement:\n \* - Annotate declaration with the marker annotation, making it propagating.\n \* - Annotate declaration with [OptIn] in order to opt in into the provided guarantees in a non-propagating manner.\n \* - Annotate declaration with [SubclassOptInRequired] with the same marker class, making it further propagating only for subclassing.\n \*\n \* Uses of this annotation are limited to open and abstract classes, and non-`fun` interfaces.\n \*\n \* Any other uses allowed by `CLASS` annotation target yield a compilation error.\n \*\n \* @property markerClass specifies marker annotation that require explicit opt-in.\n \* @see RequiresOptIn for a detailed description of opt-in semantics and propagation rules.\n\n \*\n @Target(CLASS)\n @Retention(BINARY)\n @SinceKotlin("1.8")\n @ExperimentalSubclassOptIn\n public annotation class SubclassOptInRequired\n\n val markerClass: KClass<out Annotation>\n\n", /\*\n \* Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n \*\n @package kotlin\n @import kotlin.annotation.AnnotationRetention.BINARY\n @import kotlin.annotation.AnnotationTarget.\*\n @import kotlin.reflect.KClass\n\n @Target(CLASS, PROPERTY, CONSTRUCTOR, FUNCTION, TYPEALIAS)\n @Retention(BINARY)\n internal annotation class WasExperimental(\n vararg val markerClass: KClass<out Annotation>\n)\n\n", /\*\n \* Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n \*\n @package kotlin.collections\n @import kotlin.js.JsName\n\n /\*\*\n \* Provides a skeletal implementation of the read-only [Collection] interface.\n \*\n \* @param E the type of elements contained in the collection. The collection is covariant in its element type.\n \*\n @SinceKotlin("1.1")\n public abstract class AbstractCollection<out E> protected constructor() : Collection<E> {\n abstract override val size: Int\n abstract override fun iterator(): Iterator<E>\n\n override fun contains(element: @UnsafeVariance E): Boolean = any { it == element }\n\n override fun containsAll(elements: Collection<@UnsafeVariance E>): Boolean =\n elements.all { contains(it) } // use when js will support bound refs: elements.all(this::contains)\n\n override fun isEmpty(): Boolean = size == 0\n\n override fun toString(): String = joinToString(", ", "[", "]") {\n if (it === this) "(this Collection)" else it.toString()\n }\n\n /\*\*\n \* Returns new array of type `Array<Any?>` with the elements of this collection.\n \*\n @JsName("toArray")\n protected open fun toArray(): Array<Any?> = copyToArrayImpl(this)\n\n /\*\*\n \* Fills the provided [array] or creates new array of the same type\n \* and fills it with the elements of this collection.\n \*\n @protected open fun <T> toArray(array: Array<T>): Array<T> = copyToArrayImpl(this, array)\n\n", /\*\n \* Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n \*\n @package kotlin.collections\n\n private enum class State {\n Ready,\n NotReady,\n Done,\n Failed\n }\n\n /\*\*\n \* A base class to simplify implementing iterators so that implementations only have to implement [computeNext]\n \* to



```

implement the iterator, calling [done] when the iteration is complete.\n */\npublic abstract class AbstractIterator<T>
: Iterator<T> {\n    private var state = State.NotReady\n    private var nextValue: T? = null\n\n    override fun
hasNext(): Boolean {\n        require(state != State.Failed)\n        return when (state) {\n
                State.Done -> false\n                State.Ready -> true\n                else -> tryToComputeNext()\n            }\n    }\n\n    override fun next(): T {\n        if (!hasNext()) throw NoSuchElementException()\n        state = State.NotReady\n
        @Suppress("UNCHECKED_CAST")\n        return nextValue as T\n    }\n\n    private fun tryToComputeNext():
Boolean {\n        state = State.Failed\n        computeNext()\n        return state == State.Ready\n    }\n\n    /**\n     *
Computes the next item in the iterator.\n     * This callback method should call one of these two methods:\n
     * [setNext] with the next value of the iteration\n     * [done] to indicate there are no more elements\n     *
     * Failure to call either method will result in the iteration terminating with a failed state\n     */\n    abstract
protected fun computeNext(): Unit\n\n    /**\n     * Sets the next value in the iteration, called from the
[computeNext] function\n     */\n    protected
fun setNext(value: T): Unit {\n        nextValue = value\n        state = State.Ready\n    }\n\n    /**\n     * Sets the state
to done so that the iteration terminates.\n     */\n    protected fun done() {\n        state = State.Done\n
    }\n\n    "\n\n    /*\n     * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n     * Use of
this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n     */\n\n    /*\n     * Based on GWT AbstractList\n     * Copyright 2007 Google Inc.\n     */\n\n    package kotlin.collections\n\n    /**\n     * Provides a skeletal implementation of the read-only [List] interface.\n     * This class is intended to help
implementing read-only lists so it doesn't support concurrent modification tracking.\n     * @param E the type of
elements contained in the list. The list is covariant in its element type.\n     */\n\n    @SinceKotlin("1.1")\n    public abstract
class AbstractList<out E> protected constructor() : AbstractCollection<E>(),
List<E> {\n        abstract override val size: Int\n        abstract override fun get(index: Int): E\n\n        override fun iterator():
Iterator<E> = IteratorImpl()\n\n        override fun indexOf(element: @UnsafeVariance E): Int = indexOfFirst { it ==
element }\n\n        override fun lastIndexOf(element: @UnsafeVariance E): Int = indexOfLast { it == element }\n\n
        override fun listIterator(): ListIterator<E> = ListIteratorImpl(0)\n\n        override fun listIterator(index: Int):
ListIterator<E> = ListIteratorImpl(index)\n\n        override fun subList(fromIndex: Int, toIndex: Int): List<E> =
SubList(this, fromIndex, toIndex)\n\n        private class SubList<out E>(private val list: AbstractList<E>, private val
fromIndex: Int, toIndex: Int) : AbstractList<E>(), RandomAccess {\n            private var _size: Int = 0\n\n            init {\n
                checkRangeIndexes(fromIndex, toIndex, list.size)\n                this._size = toIndex - fromIndex\n            }\n\n
            override fun get(index: Int): E {\n                checkElementIndex(index,
                _size)\n                return list[fromIndex + index]\n            }\n\n            override val size: Int get() = _size\n        }\n\n        /**\n
         * Compares this list with other list instance with the ordered structural equality.\n         * @return true, if
[other] instance is a [List] of the same size, which contains the same elements in the same order.\n         */\n        override
fun equals(other: Any?): Boolean {\n            if (other === this) return true\n            if (other !is List<*>) return false\n
            return orderedEquals(this, other)\n        }\n\n        /**\n         * Returns the hash code value for this list.\n         */\n        override
fun hashCode(): Int = orderedHashCode(this)\n\n        private open inner class IteratorImpl : Iterator<E> {\n            /**\n
             * the index of the item that will be returned on the next call to [next]`()\n             */\n            protected var index = 0\n\n
            override fun hasNext(): Boolean = index < size\n\n            override fun next(): E {\n                if (!hasNext())
                throw NoSuchElementException()\n                return get(index++)\n            }\n        }\n\n        /**\n         * Implementation of
[ListIterator] for abstract lists.\n         */\n        private open inner class ListIteratorImpl(index: Int) : IteratorImpl(),
ListIterator<E> {\n            init {\n                checkPositionIndex(index, this@AbstractList.size)\n                this.index =
index\n            }\n\n            override fun hasPrevious(): Boolean = index > 0\n\n            override fun nextIndex(): Int =
index\n\n            override fun previous(): E {\n                if (!hasPrevious()) throw NoSuchElementException()\n
                return get(--index)\n            }\n\n            override fun previousIndex(): Int = index - 1\n        }\n\n        internal companion
object {\n            internal fun checkElementIndex(index: Int, size: Int) {\n                if (index < 0 || index >= size) {\n
                    throw IndexOutOfBoundsException("index: $index, size: $size")\n                }\n            }\n\n            internal fun
checkPositionIndex(index:

```

```

Int, size: Int) {\n
    if (index < 0 || index > size) {\n
        throw IndexOutOfBoundsException("index:
$index, size: $size")\n
    }\n
}\n\n
internal fun checkRangeIndexes(fromIndex: Int, toIndex: Int, size:
Int) {\n
    if (fromIndex < 0 || toIndex > size) {\n
        throw IndexOutOfBoundsException("fromIndex:
$fromIndex, toIndex: $toIndex, size: $size")\n
    }\n
    if (fromIndex > toIndex) {\n
        throw
IllegalArgumentOutOfRangeException("fromIndex: $fromIndex > toIndex: $toIndex")\n
    }\n
}\n\n
internal fun
checkBoundsIndexes(startIndex: Int, endIndex: Int, size: Int) {\n
    if (startIndex < 0 || endIndex > size) {\n
        throw IndexOutOfBoundsException("startIndex: $startIndex, endIndex: $endIndex, size: $size")\n
    }\n
    if (startIndex > endIndex) {\n
        throw IllegalArgumentException("startIndex: $startIndex > endIndex:
$endIndex")\n
    }\n
}\n\n
}\n
}\n\n
internal fun orderedHashCode(c: Collection<*>): Int {\n
    var hashCode = 1\n
for (e in c) {\n
    hashCode = 31 * hashCode + (e?.hashCode() ?: 0)\n
}\n
return hashCode\n
}\n\n
internal fun orderedEquals(c: Collection<*>, other: Collection<*>): Boolean {\n
    if (c.size !=
other.size) return false\n\n
    val otherIterator = other.iterator()\n
    for (elem in c) {\n
        val
elemOther = otherIterator.next()\n
        if (elem != elemOther) {\n
            return false\n
        }\n
    }\n
    return true\n
}\n
}\n
}"/\n\n
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license/LICENSE.txt file.\n
 */\n\n
 * Based on GWT AbstractMap\n
 * Copyright 2007 Google Inc.\n
 */\n\n
package

kotlin.collections\n\n
/**\n
 * Provides a skeletal implementation of the read-only [Map] interface.\n
 * The\n
 * implementor is required to implement [entries] property, which should return read-only set of map entries.\n
 * The\n
 * @param K the type of map keys. The map is invariant in its key type.\n
 * @param V the type of map values. The\n
 * map is covariant in its value type.\n
 */\n\n
@SinceKotlin("1.1")\n
public abstract class AbstractMap<K, out V>\n
protected constructor() : Map<K, V> {\n\n
    override fun containsKey(key: K): Boolean {\n
        return
implFindEntry(key) != null\n
    }\n\n
    override fun containsValue(value: @UnsafeVariance V): Boolean =
entries.any { it.value == value }\n\n
    internal fun containsEntry(entry: Map.Entry<*, *>?): Boolean {\n
        // since
entry comes from @UnsafeVariance parameters it can be virtually anything\n
        if (entry !is Map.Entry<*, *>)\n
return false\n
        val key = entry.key\n
        val value = entry.value\n
        val ourValue = get(key)\n\n
        if (value != ourValue) {\n
            return false\n
        }\n\n
        // Perhaps it was null and we don't contain the
key?\n
        if (ourValue == null && !containsKey(key)) {\n
            return false\n
        }\n\n
        return true\n
    }\n\n
}\n\n
/**\n
 * Compares this map with other instance with the ordered structural equality.\n
 * @return
true, if [other] instance is a [Map] of the same size, all entries of which are contained in the [entries] set of this
map.\n
 */\n\n
override fun equals(other: Any?): Boolean {\n
    if (other === this) return true\n
    if (other !is
Map<*, *>) return false\n
    if (size != other.size) return false\n\n
    return other.entries.all { containsEntry(it)
}\n
}\n\n
override operator fun get(key: K): V? = implFindEntry(key)?.value\n\n
/**\n
 * Returns the hash
code value for this map.\n
 * It is the same as the hashCode of [entries] set.\n
 */\n\n
override fun
hashCode():

Int = entries.hashCode()\n\n
override fun isEmpty(): Boolean = size == 0\n
override val size: Int get() =
entries.size\n\n
/**\n
 * Returns a read-only [Set] of all keys in this map.\n
 * Accessing this property
first time creates a keys view from [entries].\n
 * All subsequent accesses just return the created instance.\n
 */\n\n
override val keys: Set<K>\n
get() {\n
    if (_keys == null) {\n
        _keys = object : AbstractSet<K>()\n
{\n
            override operator fun contains(element: K): Boolean = containsKey(element)\n\n
}\n\n
}\n\n
override operator fun iterator(): Iterator<K> {\n
        val entryIterator = entries.iterator()\n\n
return object : Iterator<K> {\n
            override fun hasNext(): Boolean = entryIterator.hasNext()\n\n
            override fun next(): K = entryIterator.next().key\n
        }\n
}\n\n
        override val size: Int get() = this@AbstractMap.size\n
    }\n
}\n
return _keys!!\n
}\n\n
@kotlin.jvm.Volatile\n
private var _keys: Set<K>? = null\n\n
override fun toString(): String =
entries.joinToString(", ", "{", "}") { toString(it) }\n\n
private fun toString(entry: Map.Entry<K, V>): String =
toString(entry.key) + "=" + toString(entry.value)\n\n
private fun toString(o: Any?): String = if (o === this) "(this"

```

```

Map)\n else o.toString()\n\n /**\n * Returns a read-only [Collection] of all values in this map.\n *\n *
Accessing this property first time creates a values view from [entries].\n * All subsequent accesses just return the
created instance.\n *\n override val values: Collection<V>\n     get() {\n         if (_values == null) {\n
            _values = object : AbstractCollection<V>() {\n
                override fun contains(element:
@UnsafeVariance
V): Boolean = containsValue(element)\n\n                override fun iterator(): Iterator<V> {\n
                    val entryIterator = entries.iterator()\n                    return object : Iterator<V> {\n
                        override fun
hasNext(): Boolean = entryIterator.hasNext()\n                        override fun next(): V = entryIterator.next().value\n
                    }\n                }\n\n                override val size: Int get() = this@AbstractMap.size\n            }\n        }\n        return _values!!\n    }\n\n    @kotlin.jvm.Volatile\n    private var _values: Collection<V>? = null\n\n    internal
companion object {\n        internal fun entryHashCode(e: Map.Entry<*, *>): Int = with(e) { (key?.hashCode() ?:
0) xor (value?.hashCode() ?: 0) }\n        internal fun entryToString(e: Map.Entry<*, *>): String
= with(e) { \"$key=$value" }\n        internal fun entryEquals(e: Map.Entry<*, *>, other: Any?): Boolean {\n
            if (other !is Map.Entry<*, *>) return false\n            return e.key == other.key && e.value == other.value\n        }\n    }\n\n    "/**\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of
this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\npackage kotlin.collections\n\n/**\n * Provides a skeletal implementation of the read-only [Set] interface.\n *\n *
This class is intended to help implementing read-only sets so it doesn't support concurrent modification tracking.\n
*\n * @param E the type of elements contained in the set. The set is covariant in its element type.\n
*\n * @SinceKotlin("1.1")\npublic abstract class AbstractSet<out E> protected constructor() :
AbstractCollection<E>(), Set<E> {\n\n    /**\n     * Compares this set with other set instance with the
unordered structural equality.\n     *\n     * @return true, if [other] instance is a [Set] of the same size, all elements
of which are contained in this set.\n     *\n     override fun equals(other: Any?): Boolean {\n         if (other == this)
return true\n         if (other !is Set<*>) return false\n         return setEquals(this, other)\n     }\n\n     /**\n     * Returns
the hash code value for this set.\n     *\n     override fun hashCode(): Int = unorderedHashCode(this)\n\n     internal
companion object {\n         internal fun unorderedHashCode(c: Collection<*>): Int {\n             var hashCode = 0\n
            for (element in c) {\n                 hashCode += (element?.hashCode() ?: 0)\n             }\n             return hashCode\n
        }\n\n         internal fun setEquals(c: Set<*>, other: Set<*>): Boolean {\n             if (c.size != other.size) return false\n
            return c.containsAll(other)\n        }\n    }\n\n    "/**\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n *\npackage kotlin.collections\n\n/**\n * Resizable-array implementation
of the deque data structure.\n *\n * The name deque is short for "double ended queue" and is usually pronounced
"deck".\n *\n * The collection provide methods for convenient access to the both ends.\n *\n * It also implements
[MutableList] interface and supports efficient get/set operations by index.\n
*\n * @SinceKotlin("1.4")\n * @WasExperimental(ExperimentalStdlibApi::class)\npublic class ArrayDeque<E> :
AbstractMutableList<E> {\n    private var head: Int = 0\n    private var elementData: Array<Any?>\n\n    override
var size: Int = 0\n    private set\n\n    /**\n     * Constructs an empty deque with specified [initialCapacity], or
throws [IllegalArgumentException] if [initialCapacity] is negative.\n     *\n     public constructor(initialCapacity:
Int) {\n        elementData = when {\n            initialCapacity == 0 -> emptyElementData\n            initialCapacity > 0 ->
arrayOfNulls(initialCapacity)\n        }\n        else -> throw IllegalArgumentException("Illegal Capacity:
$initialCapacity")\n    }\n\n    /**\n     * Constructs an empty deque.\n     *\n     public constructor() {\n
        elementData = emptyElementData\n    }\n\n    /**\n     * Constructs a deque that contains the same elements as the
specified [elements] collection in the same order.\n     *\n     public constructor(elements: Collection<E>) {\n
        elementData = elements.toArray()\n        size = elementData.size\n        if (elementData.isEmpty())
elementData = emptyElementData\n    }\n\n    /**\n     * Ensures that the capacity of this deque is at least equal to
the specified [minCapacity].\n     *\n     * If the current capacity is less than the [minCapacity], a new backing

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storage is allocated with greater capacity.\n * Otherwise, this method takes
no action and simply returns.\n */\n private fun ensureCapacity(minCapacity: Int) {\n     if (minCapacity < 0)\n     throw IllegalStateException("Deque is too big.") // overflow\n     if (minCapacity <= elementData.size) return\n     if (elementData === emptyElementData) {\n         elementData =\n         arrayOfNulls(minCapacity.coerceAtLeast(defaultMinCapacity))\n         return\n     }\n     val newCapacity =\n     newCapacity(elementData.size, minCapacity)\n     copyElements(newCapacity)\n }\n /**\n * Creates a\n new array with the specified [newCapacity] size and copies elements in the [elementData] array to it.\n */\n private fun copyElements(newCapacity: Int) {\n     val newElements = arrayOfNulls<Any?>(newCapacity)\n     elementData.copyInto(newElements, 0, head, elementData.size)\n     elementData.copyInto(newElements,\n     elementData.size - head, 0, head)\n     head = 0\n     elementData = newElements\n }\n\n@kotlin.internal.InlineOnly\n private inline fun internalGet(internalIndex: Int): E {\n     @Suppress("UNCHECKED_CAST")\n     return\n     elementData[internalIndex] as E\n }\n private fun positiveMod(index: Int): Int = if (index >=\n     elementData.size) index - elementData.size else index\n private fun negativeMod(index: Int): Int = if (index < 0)\n     index + elementData.size else index\n\n@kotlin.internal.InlineOnly\n private inline fun internalIndex(index:\n     Int): Int = positiveMod(head + index)\n private fun incremented(index: Int): Int = if (index ==\n     elementData.lastIndex) 0 else index + 1\n private fun decremented(index: Int): Int = if (index == 0)\n     elementData.lastIndex else index - 1\n\n override fun isEmpty(): Boolean = size == 0\n /**\n * Returns the\n first element, or throws [NoSuchElementException] if this deque is empty.\n */\n public fun first(): E = if\n     (isEmpty()) throw NoSuchElementException("ArrayDeque is empty.") else internalGet(head)\n\n /**\n * Returns the first element, or `null` if this deque is empty.\n */\n public fun firstOrNull(): E? = if\n     (isEmpty()) null else internalGet(head)\n\n /**\n * Returns the last element, or throws\n [NoSuchElementException] if this deque is empty.\n */\n public fun last(): E = if (isEmpty()) throw\n     NoSuchElementException("ArrayDeque is empty.") else internalGet(internalIndex(lastIndex))\n\n /**\n * Returns the last element, or `null` if this deque is empty.\n */\n public fun lastOrNull(): E? = if (isEmpty()) null\n     else internalGet(internalIndex(lastIndex))\n\n /**\n * Prepends the specified [element] to this deque.\n */\n public fun addFirst(element: E) {\n     ensureCapacity(size + 1)\n     head = decremented(head)\n     elementData[head] = element\n     size += 1\n }\n\n /**\n * Appends the specified [element] to this deque.\n */\n public fun addLast(element: E) {\n     ensureCapacity(size +\n     1)\n     elementData[internalIndex(size)] = element\n     size += 1\n }\n\n /**\n * Removes the first\n element from this deque and returns that removed element, or throws [NoSuchElementException] if this deque is\n empty.\n */\n public fun removeFirst(): E {\n     if (isEmpty()) throw NoSuchElementException("ArrayDeque\n     is empty.")\n     val element = internalGet(head)\n     elementData[head] = null\n     head =\n     incremented(head)\n     size -= 1\n     return element\n }\n\n /**\n * Removes the first element from this\n deque and returns that removed element, or returns `null` if this deque is empty.\n */\n public fun\n     removeFirstOrNull(): E? = if (isEmpty()) null else removeFirst()\n\n /**\n * Removes the last element from this\n deque and returns that removed element, or throws [NoSuchElementException] if this deque is empty.\n */\n public fun\n     removeLast(): E {\n     if (isEmpty()) throw NoSuchElementException("ArrayDeque\n     is empty.")\n     val internalLastIndex = internalIndex(lastIndex)\n     val element =\n     internalGet(internalLastIndex)\n     elementData[internalLastIndex] = null\n     size -= 1\n     return element\n }\n\n /**\n * Removes the last element from this deque and returns that removed element, or returns `null` if\n this deque is empty.\n */\n public fun\n     removeLastOrNull(): E? = if (isEmpty()) null else removeLast()\n\n //\n MutableList, MutableCollection\n public override fun add(element: E): Boolean {\n     addLast(element)\n     return true\n }\n\n public override fun add(index: Int, element: E) {\n     AbstractList.checkPositionIndex(index, size)\n     if (index == size) {\n         addLast(element)\n     }\n     return\n     } else if (index == 0) {\n         addFirst(element)\n     }\n     return\n     }\n\n ensureCapacity(size\n     + 1)\n // Elements in circular array lay in 2 ways:\n //

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1. `head` is less than `tail`:  [#, #, e1, e2, e3, #]\n    // 2. `head` is greater than `tail`:  [e3, #, #, #, e1, e2]\n
// where head is the index of the first element in the circular array,\n    // and tail is the index following the last
element.\n    /\n    // At this point the insertion index is not equal to head or tail.\n    // Also the circular array
can store at least one more element.\n    /\n    // Depending on where the given element must be inserted the
preceding or the succeeding\n    // elements will be shifted to make room for the element to be inserted.\n    /\n
    // In case the preceding elements are shifted:\n    // * if the insertion index is greater than the head (regardless
of circular array form)\n    // -> shift the preceding elements\n    // * otherwise, the circular array has (2)
form and the insertion index is less than tail\n    // -> shift all elements in the back of
the array\n    // -> shift preceding elements in the front of the array\n    // In case the succeeding elements
are shifted:\n    // * if the insertion index is less than the tail (regardless of circular array form)\n    // ->
shift the succeeding elements\n    // * otherwise, the circular array has (2) form and the insertion index is greater
than head\n    // -> shift all elements in the front of the array\n    // -> shift succeeding elements in the
back of the array\n\n    val internalIndex = internalIndex(index)\n\n    if (index < (size + 1) shr 1) {\n        //
closer to the first element -> shift preceding elements\n        val decrementedInternalIndex =
decremented(internalIndex)\n        val decrementedHead = decremented(head)\n        if
(decrementedInternalIndex >= head) {\n            elementData[decrementedHead] = elementData[head] // head can
be zero\n            elementData.copyInto(elementData,
head, head + 1, decrementedInternalIndex + 1)\n        } else { // head > tail\n
elementData.copyInto(elementData, head - 1, head, elementData.size) // head can't be zero\n
elementData[elementData.size - 1] = elementData[0]\n            elementData.copyInto(elementData, 0, 1,
decrementedInternalIndex + 1)\n        }\n\n        elementData[decrementedInternalIndex] = element\n
head = decrementedHead\n    } else {\n        // closer to the last element -> shift succeeding elements\n
val tail = internalIndex(size)\n        if (internalIndex < tail) {\n            elementData.copyInto(elementData,
internalIndex + 1, internalIndex, tail)\n        } else { // head > tail\n            elementData.copyInto(elementData,
1, 0, tail)\n            elementData[0] = elementData[elementData.size - 1]\n
elementData.copyInto(elementData, internalIndex + 1, internalIndex, elementData.size
- 1)\n        }\n        elementData[internalIndex] = element\n    }\n    size += 1\n }\n\n private fun
copyCollectionElements(internalIndex: Int, elements: Collection<E>) {\n    val iterator = elements.iterator()\n
for (index in internalIndex until elementData.size) {\n        if (!iterator.hasNext()) break\n
elementData[index] = iterator.next()\n    }\n    for (index in 0 until head) {\n        if (!iterator.hasNext())
break\n        elementData[index] = iterator.next()\n    }\n    size += elements.size\n }\n\n public override
fun addAll(elements: Collection<E>): Boolean {\n    if (elements.isEmpty()) return false\n
ensureCapacity(this.size + elements.size)\n    copyCollectionElements(internalIndex(size), elements)\n    return
true\n }\n\n public override fun addAll(index: Int, elements: Collection<E>): Boolean {\n
AbstractList.checkPositionIndex(index, size)\n\n    if (elements.isEmpty()) {\n        return false\n    } else if (index == size) {\n        return
addAll(elements)\n    }\n    ensureCapacity(this.size + elements.size)\n\n    val tail = internalIndex(size)\n
val internalIndex = internalIndex(index)\n    val elementsSize = elements.size\n\n    if (index < (size + 1) shr
1) {\n        // closer to the first element -> shift preceding elements\n        var shiftedHead = head -
elementsSize\n        if (internalIndex >= head) {\n            if (shiftedHead >= 0) {\n
elementData.copyInto(elementData, shiftedHead, head, internalIndex)\n        } else { // head < tail, insertion
leads to head >= tail\n            shiftedHead += elementData.size\n            val elementsToShift =
internalIndex - head\n            val shiftToBack = elementData.size - shiftedHead\n            if (shiftToBack
>= elementsToShift) {\n
                elementData.copyInto(elementData, shiftedHead, head, internalIndex)\n            } else {\n
                elementData.copyInto(elementData, shiftedHead, head, head + shiftToBack)\n
                elementData.copyInto(elementData, 0, head + shiftToBack, internalIndex)\n            }\n        }
    } else { // head > tail, internalIndex < tail\n        elementData.copyInto(elementData, shiftedHead, head,

```





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file.\n *\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("\nArraysKt")\n\n\npackage
kotlin.collections\n\nimport kotlin.contracts.*\n\n\n/**\n * Returns a single list of all elements from all arrays in the
given array.\n * @sample samples.collections.Arrays.Transformations.flattenArray\n * \npublic fun <T> Array<out
Array<out T>>.flatten(): List<T> {\n    val result = ArrayList<T>(sumOf { it.size })\n    for (element in this) {\n
result.addAll(element)\n    }\n    return result\n}\n\n\n/**\n * Returns a pair of lists, where\n * *first* list is built from
the first values of each pair from this array,\n * *second* list is built from the second values of each pair from this
array.\n * @sample samples.collections.Arrays.Transformations.unzipArray\n * \npublic fun <T, R> Array<out
Pair<T, R>>.unzip(): Pair<List<T>, List<R>> {\n    val listT = ArrayList<T>(size)\n    val listR =
ArrayList<R>(size)\n    for (pair in this) {\n        listT.add(pair.first)\n        listR.add(pair.second)\n
    }\n    return listT to listR\n}\n\n\n/**\n * Returns `true` if this nullable array is either null or empty.\n * @sample
samples.collections.Arrays.Usage.arrayIsNullOrEmpty\n
*\n\n@SinceKotlin("1.3")\n\n@kotlin.internal.InlineOnly\n\npublic inline fun Array<*>?.isNullOrEmpty(): Boolean
{\n    contract {\n        returns(false) implies (this@isNullOrEmpty != null)\n    }\n    return this == null ||
this.isEmpty()\n}\n\n\n/**\n * Returns this array if it's not empty\n * or the result of calling [defaultValue] function if
the array is empty.\n * \n * @sample samples.collections.Arrays.Usage.arrayIfEmpty\n
*\n\n@SinceKotlin("1.3")\n\n@kotlin.internal.InlineOnly\n\n@Suppress("UPPER_BOUND_CANNOT_BE_ARRAY")\n\npublic inline fun <C, R> C.ifEmpty(defaultValue: () -> R): R where C : Array<*>, C : R =\n    if (isEmpty())
defaultValue() else
this\n\n\n@OptIn(ExperimentalUnsignedTypes::class)\n\n@SinceKotlin("1.3")\n\n@PublishedApi\n\n@kotlin.jvm.Jvm
Name("contentDeepEquals")\n\n@kotlin.js.JsName("contentDeepEqualsImpl")\n\ninternal
fun <T> Array<out T>?.contentDeepEqualsImpl(other: Array<out T>?): Boolean {\n    if (this === other) return
true\n    if (this == null || other == null || this.size != other.size) return false\n    for (i in indices) {\n        val v1 =
this[i]\n        val v2 = other[i]\n        if (v1 === v2) {\n            continue\n        } else if (v1 == null || v2 == null) {\n
return false\n        }\n        when {\n            v1 is Array<*> && v2 is Array<*> -> if
(!v1.contentDeepEquals(v2)) return false\n            v1 is ByteArray && v2 is ByteArray -> if
(!v1.contentEquals(v2)) return false\n            v1 is ShortArray && v2 is ShortArray -> if (!v1.contentEquals(v2))
return false\n            v1 is IntArray && v2 is IntArray -> if (!v1.contentEquals(v2)) return false\n            v1 is
LongArray && v2 is LongArray -> if (!v1.contentEquals(v2)) return false\n            v1 is FloatArray && v2 is
FloatArray -> if (!v1.contentEquals(v2)) return false\n            v1 is DoubleArray && v2 is DoubleArray -> if
(!v1.contentEquals(v2)) return false\n            v1 is CharArray && v2 is CharArray -> if (!v1.contentEquals(v2))
return false\n            v1 is BooleanArray && v2 is BooleanArray -> if (!v1.contentEquals(v2)) return false\n            v1 is
UByteArray && v2 is UByteArray -> if (!v1.contentEquals(v2)) return false\n            v1 is UShortArray
&& v2 is UShortArray -> if (!v1.contentEquals(v2)) return false\n            v1 is UIntArray && v2 is UIntArray -
-> if (!v1.contentEquals(v2)) return false\n            v1 is ULongArray && v2 is ULongArray -> if
(!v1.contentEquals(v2)) return false\n            else -> if (v1 != v2) return false\n        }\n    }\n    return
true\n}\n\n\n@SinceKotlin("1.3")\n\n@PublishedApi\n\n@kotlin.jvm.JvmName("contentDeepToString")\n\n@kotlin.js.
JsName("contentDeepToStringImpl")\n\ninternal fun <T> Array<out T>?.contentDeepToStringImpl():
String {\n    if (this == null) return "null"\n    val length = size.coerceAtMost((Int.MAX_VALUE - 2) / 5) * 5 + 2
// in order not to overflow Int.MAX_VALUE\n    return buildString(length) {\n
contentDeepToStringInternal(this, mutableListOf())\n
}\n}\n\n\n@OptIn(ExperimentalUnsignedTypes::class)\n\nprivate fun <T> Array<out
T>.contentDeepToStringInternal(result: StringBuilder, processed: MutableList<Array<*>>) {\n    if (this in
processed) {\n        result.append("[...]")\n        return\n    }\n    processed.add(this)\n    result.append("[")\n    for (i
in indices) {\n        if (i != 0) {\n            result.append(", ")\n        }\n        val element = this[i]\n        when
(element) {\n            null -> result.append("null")\n            is Array<*> ->
element.contentDeepToStringInternal(result, processed)\n            is ByteArray ->
result.append(element.contentToString())\n            is ShortArray -> result.append(element.contentToString())\n
}
}

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        is IntArray -> result.append(element.contentToString())\n        is LongArray ->
result.append(element.contentToString())\n        is FloatArray -> result.append(element.contentToString())\n
        is DoubleArray -> result.append(element.contentToString())\n        is CharArray ->
result.append(element.contentToString())\n        is BooleanArray -> result.append(element.contentToString())\n\n
        is UByteArray -> result.append(element.contentToString())\n        is UShortArray ->
result.append(element.contentToString())\n        is UIntArray -> result.append(element.contentToString())\n
        is ULongArray -> result.append(element.contentToString())\n        else ->
result.append(element.toString())\n    }\n }\n\n result.append('}')\n
processed.removeAt(processed.lastIndex)\n}", "/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n
 * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\npackage kotlin.collections\n\n/**\n * Data class representing a value from a collection or sequence, along with
its index in that collection or sequence.\n * @property value the underlying value.\n * @property index the
index of the value in the collection or sequence.\n */\n\npublic data class IndexedValue<out T>(public val index: Int,
public val value: T)\n", "/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmName("MapAccessorsKt")\n\npackage
kotlin.collections\n\nimport kotlin.reflect.KProperty\nimport kotlin.internal.Exact\n\n/**\n * Returns the value of
the property for the given object from this read-only map.\n * @param thisRef the object for which the value is
requested
(not used).\n * @param property the metadata for the property, used to get the name of property and lookup the
value corresponding to this name in the map.\n * @return the property value.\n * @throws
NoSuchElementException when the map doesn't contain value for the property name and doesn't provide an implicit
default (see [withDefault]).\n */\n\n@kotlin.internal.InlineOnly\npublic inline operator fun <V, V1 : V> Map<in
String, @Exact V>.getValue(thisRef: Any?, property: KProperty<*>): V1 =\n
@Suppress("UNCHECKED_CAST") (getOrNull(thisRef, property.name) as V1)\n\n/**\n * Returns the value
of the property for the given object from this mutable map.\n * @param thisRef the object for which the value is
requested (not used).\n * @param property the metadata for the property, used to get the name of property and
lookup the value corresponding to this name in the map.\n * @return the property value.\n * @throws
NoSuchElementException when the map doesn't contain value
for the property name and doesn't provide an implicit default (see [withDefault]).\n
*/\n\n@kotlin.jvm.JvmName("getVar")\n@kotlin.internal.InlineOnly\npublic inline operator fun <V, V1 : V>
MutableMap<in String, out @Exact V>.getValue(thisRef: Any?, property: KProperty<*>): V1 =\n
@Suppress("UNCHECKED_CAST") (getOrNull(thisRef, property.name) as V1)\n\n/**\n * Stores the value of
the property for the given object in this mutable map.\n * @param thisRef the object for which the value is
requested (not used).\n * @param property the metadata for the property, used to get the name of property and store
the value associated with that name in the map.\n * @param value the value to set.\n
*/\n\n@kotlin.internal.InlineOnly\npublic inline operator fun <V> MutableMap<in String, in V>.setValue(thisRef:
Any?, property: KProperty<*>, value: V) {\n    this.put(property.name, value)\n}\n", "/*\n * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this
source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("MapsKt")\n\npackage
kotlin.collections\n\n/**\n * Returns the value for the given key, or the implicit default value for this map.\n * By
default no implicit value is provided for maps and a [NoSuchElementException] is thrown.\n * To create a map with
implicit default value use [withDefault] method.\n * @throws NoSuchElementException when the map doesn't
contain a value for the specified key and no implicit default was provided for that map.\n
*/\n\n@kotlin.jvm.JvmName("getOrNull")\n@PublishedApi\ninternal fun <K, V> Map<K,
V>.getOrNull(key: K): V {\n    if (this is MapWithDefault)\n        return

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this.getOrImplicitDefault(key)\n\n    return getOrElseNullable(key, { throw NoSuchElementException("Key $key
is missing in the map.") })\n}\n\n/**\n * Returns a wrapper of this read-only
map, having the implicit default value provided with the specified function [defaultValue].\n *\n * This implicit
default value is used when the original map doesn't contain a value for the key specified\n * and a value is obtained
with [Map.getValue] function, for example when properties are delegated to the map.\n *\n * When this map already
has an implicit default value provided with a former call to [withDefault], it is being replaced by this call.\n
*\npublic fun <K, V> Map<K, V>.withDefault(defaultValue: (key: K) -> V): Map<K, V> =\n    when (this) {\n
is MapWithDefault -> this.map.withDefault(defaultValue)\n        else -> MapWithDefaultImpl(this, defaultValue)\n
}\n\n/**\n * Returns a wrapper of this mutable map, having the implicit default value provided with the specified
function [defaultValue].\n *\n * This implicit default value is used when the original map doesn't contain a value for
the key specified\n * and a value is obtained with [Map.getValue] function,
for example when properties are delegated to the map.\n *\n * When this map already has an implicit default value
provided with a former call to [withDefault], it is being replaced by this call.\n
*\n@kotlin.jvm.JvmName("withDefaultMutable")\npublic fun <K, V> MutableMap<K,
V>.withDefault(defaultValue: (key: K) -> V): MutableMap<K, V> =\n    when (this) {\n        is
MutableMapWithDefault -> this.map.withDefault(defaultValue)\n        else -> MutableMapWithDefaultImpl(this,
defaultValue)\n    }\n\nprivate interface MapWithDefault<K, out V> : Map<K, V> {\n    public val map: Map<K,
V>\n    public fun getOrImplicitDefault(key: K): V\n}\n\nprivate interface MutableMapWithDefault<K, V> :
MutableMap<K, V>, MapWithDefault<K, V> {\n    public override val map: MutableMap<K, V>\n}\n\nprivate
class MapWithDefaultImpl<K, out V>(public override val map: Map<K, V>, private val default: (key: K) -> V) :
MapWithDefault<K, V> {\n    override fun equals(other: Any?): Boolean = map.equals(other)\n
    override fun hashCode(): Int = map.hashCode()\n    override fun toString(): String = map.toString()\n    override
val size: Int get() = map.size\n    override fun isEmpty(): Boolean = map.isEmpty()\n    override fun
containsKey(key: K): Boolean = map.containsKey(key)\n    override fun containsValue(value: @UnsafeVariance
V): Boolean = map.containsValue(value)\n    override fun get(key: K): V? = map.get(key)\n    override val keys:
Set<K> get() = map.keys\n    override val values: Collection<V> get() = map.values\n    override val entries:
Set<Map.Entry<K, V>> get() = map.entries\n\n    override fun getOrImplicitDefault(key: K): V =
map.getOrElseNullable(key, { default(key) })\n}\n\nprivate class MutableMapWithDefaultImpl<K, V>(public
override val map: MutableMap<K, V>, private val default: (key: K) -> V) : MutableMapWithDefault<K, V> {\n
    override fun equals(other: Any?): Boolean = map.equals(other)\n    override fun hashCode(): Int =
map.hashCode()\n    override fun toString():
String = map.toString()\n    override val size: Int get() = map.size\n    override fun isEmpty(): Boolean =
map.isEmpty()\n    override fun containsKey(key: K): Boolean = map.containsKey(key)\n    override fun
containsValue(value: @UnsafeVariance V): Boolean = map.containsValue(value)\n    override fun get(key: K): V?
= map.get(key)\n    override val keys: MutableSet<K> get() = map.keys\n    override val values:
MutableCollection<V> get() = map.values\n    override val entries: MutableSet<MutableMap.MutableEntry<K,
V>> get() = map.entries\n\n    override fun put(key: K, value: V): V? = map.put(key, value)\n    override fun
remove(key: K): V? = map.remove(key)\n    override fun putAll(from: Map<out K, V>) = map.putAll(from)\n
    override fun clear() = map.clear()\n\n    override fun getOrImplicitDefault(key: K): V = map.getOrElseNullable(key,
{ default(key) })\n}\n\n", "/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code
is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("CollectionsKt")\n\npackage
kotlin.collections\n\n/**\n * Removes a single instance of the specified element from this\n * collection, if it is
present.\n *\n * Allows to overcome type-safety restriction of `remove` that requires to pass an element of type
`E`.\n *\n * @return `true` if the element has been successfully removed; `false` if it was not present in the
collection.\n *\n@kotlin.internal.InlineOnly\npublic inline fun <@kotlin.internal.OnlyInputTypes T>
MutableCollection<out T>.remove(element: T): Boolean =\n    @Suppress("UNCHECKED_CAST") (this as

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MutableCollection<T>.remove(element)\n\n**\n * Removes all of this collection's elements that are also
contained in the specified collection.\n\n * Allows to overcome type-safety restriction of `removeAll` that requires
to pass a collection of type `Collection<E>`. \n\n *\n
 * @return `true` if any of the specified elements was removed from the collection, `false` if the collection was not
modified.\n\n *\n@kotlin.internal.InlineOnly\npublic inline fun <@kotlin.internal.OnlyInputTypes T>
MutableCollection<out T>.removeAll(elements: Collection<T>): Boolean =\n
@Suppress("UNCHECKED_CAST") (this as MutableCollection<T>).removeAll(elements)\n\n**\n * Retains
only the elements in this collection that are contained in the specified collection.\n\n * Allows to overcome type-
safety restriction of `retainAll` that requires to pass a collection of type `Collection<E>`. \n\n *\n * @return `true` if
any element was removed from the collection, `false` if the collection was not modified.\n
*\n@kotlin.internal.InlineOnly\npublic inline fun <@kotlin.internal.OnlyInputTypes T> MutableCollection<out
T>.retainAll(elements: Collection<T>): Boolean =\n @Suppress("UNCHECKED_CAST") (this as
MutableCollection<T>).retainAll(elements)\n\n**\n * Adds the specified [element]
to this mutable collection.\n\n *\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in
T>.plusAssign(element: T) {\n this.add(element)\n}\n\n**\n * Adds all elements of the given [elements]
collection to this mutable collection.\n\n *\n@kotlin.internal.InlineOnly\npublic inline operator fun <T>
MutableCollection<in T>.plusAssign(elements: Iterable<T>) {\n this.addAll(elements)\n}\n\n**\n * Adds all
elements of the given [elements] array to this mutable collection.\n\n *\n@kotlin.internal.InlineOnly\npublic inline
operator fun <T> MutableCollection<in T>.plusAssign(elements: Array<T>) {\n
this.addAll(elements)\n}\n\n**\n * Adds all elements of the given [elements] sequence to this mutable collection.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in T>.plusAssign(elements:
Sequence<T>) {\n this.addAll(elements)\n}\n\n**\n * Removes a single instance of the specified [element] from
this mutable collection.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in T>.minusAssign(element:
T) {\n this.remove(element)\n}\n\n**\n * Removes all elements contained in the given [elements] collection from
this mutable collection.\n\n *\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in
T>.minusAssign(elements: Iterable<T>) {\n this.removeAll(elements)\n}\n\n**\n * Removes all elements
contained in the given [elements] array from this mutable collection.\n\n *\n@kotlin.internal.InlineOnly\npublic
inline operator fun <T> MutableCollection<in T>.minusAssign(elements: Array<T>) {\n
this.removeAll(elements)\n}\n\n**\n * Removes all elements contained in the given [elements] sequence from this
mutable collection.\n\n *\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in
T>.minusAssign(elements: Sequence<T>) {\n this.removeAll(elements)\n}\n\n**\n * Adds all elements of the
given [elements] collection
to this [MutableCollection].\n\n *\npublic fun <T> MutableCollection<in T>.addAll(elements: Iterable<T>):
Boolean {\n when (elements) {\n is Collection -> return addAll(elements)\n else -> {\n var result:
Boolean = false\n for (item in elements)\n if (add(item)) result = true\n return result\n }\n }\n}\n\n**\n * Adds all elements of the given [elements] sequence to this [MutableCollection].\n\n *\npublic fun
<T> MutableCollection<in T>.addAll(elements: Sequence<T>): Boolean {\n var result: Boolean = false\n for
(item in elements) {\n if (add(item)) result = true\n }\n return result\n}\n\n**\n * Adds all elements of the
given [elements] array to this [MutableCollection].\n\n *\npublic fun <T> MutableCollection<in T>.addAll(elements:
Array<out T>): Boolean {\n return addAll(elements.asList())\n}\n\n**\n * Converts this [Iterable] to a list if it is
not a [Collection].\n\n * Otherwise, returns
this.\n\n *\ninternal fun <T> Iterable<T>.convertToListIfNotCollection(): Collection<T> =\n if (this is Collection)
this else toList()\n\n**\n * Removes all elements from this [MutableCollection] that are also contained in the given
[elements] collection.\n\n *\npublic fun <T> MutableCollection<in T>.removeAll(elements: Iterable<T>): Boolean
{\n return removeAll(elements.convertToListIfNotCollection())\n}\n\n**\n * Removes all elements from this
[MutableCollection] that are also contained in the given [elements] sequence.\n\n *\npublic fun <T>
MutableCollection<in T>.removeAll(elements: Sequence<T>): Boolean {\n val list = elements.toList()\n return

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list.isNotEmpty() && removeAll(list)\n\n/\*\*\n \* Removes all elements from this [MutableCollection] that are also contained in the given [elements] array.\n \*/\npublic fun <T> MutableCollection<in T>.removeAll(elements: Array<out T>): Boolean {\n return elements.isNotEmpty() && removeAll(elements.asList())\n}\n\n/\*\*\n \* Retains only elements of this [MutableCollection] that are contained in the given [elements] collection.\n \*/\npublic fun <T> MutableCollection<in T>.retainAll(elements: Iterable<T>): Boolean {\n return retainAll(elements.convertToListIfNotCollection())\n}\n\n/\*\*\n \* Retains only elements of this [MutableCollection] that are contained in the given [elements] array.\n \*/\npublic fun <T> MutableCollection<in T>.retainAll(elements: Array<out T>): Boolean {\n if (elements.isNotEmpty())\n return retainAll(elements.asList())\n else\n return retainNothing()\n}\n\n/\*\*\n \* Retains only elements of this [MutableCollection] that are contained in the given [elements] sequence.\n \*/\npublic fun <T> MutableCollection<in T>.retainAll(elements: Sequence<T>): Boolean {\n val list = elements.toList()\n if (list.isNotEmpty())\n return retainAll(list)\n else\n return retainNothing()\n}\n\nprivate fun MutableCollection<\*>.retainNothing(): Boolean {\n val result = isEmpty()\n clear()\n return result\n}\n\n/\*\*\n \* Removes all elements from this [MutableIterable] that match the given [predicate].\n \*/\n \* @return `true` if any element was removed from this collection, or `false` when no elements were removed and collection was not modified.\n \*/\npublic fun <T> MutableIterable<T>.removeAll(predicate: (T) -> Boolean): Boolean = filterInPlace(predicate, true)\n\n/\*\*\n \* Retains only elements of this [MutableIterable] that match the given [predicate].\n \*/\n \* @return `true` if any element was removed from this collection, or `false` when all elements were retained and collection was not modified.\n \*/\npublic fun <T> MutableIterable<T>.retainAll(predicate: (T) -> Boolean): Boolean = filterInPlace(predicate, false)\n\nprivate fun <T> MutableIterable<T>.filterInPlace(predicate: (T) -> Boolean, predicateResultToRemove: Boolean): Boolean {\n var result = false\n with(iterator()) {\n while (hasNext())\n if (predicate(next()) == predicateResultToRemove) {\n remove()\n result = true\n }\n }\n return result\n}\n\n/\*\*\n \* Removes the element at the specified [index] from this list.\n \*/\n \* In Kotlin one should use the [MutableList.removeAt] function instead.\n \*/\n \* @Deprecated("Use removeAt(index) instead.")\n \*/\nReplaceWith("removeAt(index)", level = DeprecationLevel.ERROR)\n\n@kotlin.internal.InlineOnly\npublic inline fun <T> MutableList<T>.remove(index: Int): T = removeAt(index)\n\n/\*\*\n \* Removes the first element from this mutable list and returns that removed element, or throws [NoSuchElementException] if this list is empty.\n \*/\n \* @SinceKotlin("1.4")\n \* @WasExperimental(ExperimentalStdlibApi::class)\n \*/\npublic fun <T> MutableList<T>.removeFirst(): T = if (isEmpty()) throw NoSuchElementException("List is empty.") else removeAt(0)\n\n/\*\*\n \* Removes the first element from this mutable list and returns that removed element, or returns `null` if this list is empty.\n \*/\n \* @SinceKotlin("1.4")\n \* @WasExperimental(ExperimentalStdlibApi::class)\n \*/\npublic fun <T> MutableList<T>.removeFirstOrNull(): T? = if (isEmpty()) null else removeAt(0)\n\n/\*\*\n \* Removes the last element from this mutable list and returns that removed element, or throws [NoSuchElementException] if this list is empty.\n \*/\n \* @SinceKotlin("1.4")\n \* @WasExperimental(ExperimentalStdlibApi::class)\n \*/\npublic fun <T> MutableList<T>.removeLast(): T = if (isEmpty()) throw NoSuchElementException("List is empty.") else removeAt(lastIndex)\n\n/\*\*\n \* Removes the last element from this mutable list and returns that removed element, or returns `null` if this list is empty.\n \*/\n \* @SinceKotlin("1.4")\n \* @WasExperimental(ExperimentalStdlibApi::class)\n \*/\npublic fun <T> MutableList<T>.removeLastOrNull(): T? = if (isEmpty()) null else removeAt(lastIndex)\n\n/\*\*\n \* Removes all elements from this [MutableList] that match the given [predicate].\n \*/\n \* @return `true` if any element was removed from this collection, or `false` when no elements were removed and collection was not modified.\n \*/\npublic fun <T> MutableList<T>.removeAll(predicate: (T) -> Boolean): Boolean = filterInPlace(predicate, true)\n\n/\*\*\n \* Retains only elements of this [MutableList] that match the given [predicate].\n \*/\n \* @return `true` if any element was removed from this collection, or `false` when all elements were retained and collection was not modified.\n \*/\n

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*^public fun <T> MutableList<T>.retainAll(predicate: (T) -> Boolean): Boolean = filterInPlace(predicate,
false)\n\nprivate fun <T> MutableList<T>.filterInPlace(predicate: (T) -> Boolean, predicateResultToRemove:
Boolean): Boolean {\n    if (this !is RandomAccess)\n        return (this as
MutableIterable<T>).filterInPlace(predicate, predicateResultToRemove)\n\n    var writeIndex: Int = 0\n    for
(readIndex in 0..lastIndex) {\n        val element = this[readIndex]\n        if (predicate(element) ==
predicateResultToRemove)\n            continue\n\n        if (writeIndex != readIndex)\n            this[writeIndex] = element\n            writeIndex++\n        }\n        if (writeIndex
< size) {\n            for (removeIndex in lastIndex downTo writeIndex)\n                removeAt(removeIndex)\n\n            return
true\n        } else {\n            return false\n        }\n    }\n}\n\n",/*\n * Copyright 2010-2023 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin.collections\n\n/** An
iterator over a sequence of values of type `Byte`. */\npublic abstract class ByteIterator : Iterator<Byte> {\n
override final fun next() = nextByte()\n\n    /** Returns the next value in the sequence without boxing. */\n    public
abstract fun nextByte(): Byte\n}\n\n/** An iterator over a sequence of values of type `Char`. */\npublic abstract
class CharIterator : Iterator<Char> {\n    override final
fun next() = nextChar()\n\n    /** Returns the next value in the sequence without boxing. */\n    public abstract fun
nextChar(): Char\n}\n\n/** An iterator over a sequence of values of type `Short`. */\npublic abstract class
ShortIterator : Iterator<Short> {\n    override final fun next() = nextShort()\n\n    /** Returns the next value in the
sequence without boxing. */\n    public abstract fun nextShort(): Short\n}\n\n/** An iterator over a sequence of
values of type `Int`. */\npublic abstract class IntIterator : Iterator<Int> {\n    override final fun next() = nextInt()\n\n
/** Returns the next value in the sequence without boxing. */\n    public abstract fun nextInt(): Int\n}\n\n/** An
iterator over a sequence of values of type `Long`. */\npublic abstract class LongIterator : Iterator<Long> {\n
override final fun next() = nextLong()\n\n    /** Returns the next value in the sequence without boxing. */\n    public
abstract fun nextLong(): Long\n}\n\n/** An iterator over a sequence
of values of type `Float`. */\npublic abstract class FloatIterator : Iterator<Float> {\n    override final fun next() =
nextFloat()\n\n    /** Returns the next value in the sequence without boxing. */\n    public abstract fun nextFloat():
Float\n}\n\n/** An iterator over a sequence of values of type `Double`. */\npublic abstract class DoubleIterator :
Iterator<Double> {\n    override final fun next() = nextDouble()\n\n    /** Returns the next value in the sequence
without boxing. */\n    public abstract fun nextDouble(): Double\n}\n\n/** An iterator over a sequence of values of
type `Boolean`. */\npublic abstract class BooleanIterator : Iterator<Boolean> {\n    override final fun next() =
nextBoolean()\n\n    /** Returns the next value in the sequence without boxing. */\n    public abstract fun
nextBoolean(): Boolean\n}\n\n",/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("CollectionsKt")\n\npackage
kotlin.collections\n\nprivate open class ReversedListReadOnly<out T>(private val delegate: List<T>) :
AbstractList<T>() {\n    override val size: Int get() = delegate.size\n    override fun get(index: Int): T =
delegate[reverseElementIndex(index)]\n}\n\nprivate class ReversedList<T>(private val delegate: MutableList<T>) :
AbstractMutableList<T>() {\n    override val size: Int get() = delegate.size\n    override fun get(index: Int): T =
delegate[reverseElementIndex(index)]\n    override fun clear() = delegate.clear()\n    override fun removeAt(index:
Int): T = delegate.removeAt(reverseElementIndex(index))\n    override fun set(index: Int, element: T): T =
delegate.set(reverseElementIndex(index), element)\n    override fun add(index: Int, element: T) {\n
delegate.add(reversePositionIndex(index), element)\n    }\n}\n\nprivate fun List<*>.reverseElementIndex(index:
Int) =\n    if (index in 0..lastIndex) lastIndex - index else throw IndexOutOfBoundsException("Element index
$index must be in range [{0..lastIndex}].")\n\nprivate fun List<*>.reversePositionIndex(index: Int) =\n    if (index
in 0..size) size - index else throw IndexOutOfBoundsException("Position index $index must be in range
[{0..size}].")\n\n\n/**\n * Returns a reversed read-only view of the original List.\n * All changes made in the
original list will be reflected in the reversed one.\n * @sample samples.collections.ReversedViews.asReversedList\n
*/\n

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*^public fun <T> List<T>.asReversed(): List<T> = ReversedListReadOnly(this)\n\n/**\n * Returns a reversed
mutable view of the original mutable List.\n * All changes made in the original list will be reflected in the reversed
one and vice versa.\n * @sample samples.collections.ReversedViews.asReversedMutableList\n
*^@kotlin.jvm.JvmName("asReversedMutable")\npublic fun <T> MutableList<T>.asReversed():
MutableList<T> = ReversedList(this)\n\n"/**\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n
*^@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("SequencesKt")\n@file:OptIn(Experimenta
lTypeInference::class)\n\npackage kotlin.sequences\n\nimport kotlin.coroutines.*\nimport
kotlin.coroutines.intrinsics.*\nimport kotlin.experimental.ExperimentalTypeInference\n\n/**\n * Builds a
[Sequence] lazily yielding values one by one.\n * @see kotlin.sequences.generateSequence\n * @sample
samples.collections.Sequences.Building.buildSequenceYieldAll\n * @sample
samples.collections.Sequences.Building.buildFibonacciSequence\n
*^@SinceKotlin("1.3")\n@Suppress("DEPRECATION")\npublic fun <T> sequence(@BuilderInference block:
suspend SequenceScope<T>().->Unit): Sequence<T> = Sequence { iterator(block) }\n\n/**\n * Builds
an [Iterator] lazily yielding values one by one.\n * @sample
samples.collections.Sequences.Building.buildIterator\n * @sample samples.collections.Iterables.Building.iterable\n
*^@SinceKotlin("1.3")\n@Suppress("DEPRECATION")\npublic fun <T> iterator(@BuilderInference block:
suspend SequenceScope<T>().->Unit): Iterator<T> {\n    val iterator = SequenceBuilderIterator<T>()\n
iterator.nextStep = block.createCoroutineUnintercepted(receiver = iterator, completion = iterator)\n    return
iterator\n}\n\n/**\n * The scope for yielding values of a [Sequence] or an [Iterator], provides [yield] and [yieldAll]
suspension functions.\n * @see sequence\n * @see iterator\n * @sample
samples.collections.Sequences.Building.buildSequenceYieldAll\n * @sample
samples.collections.Sequences.Building.buildFibonacciSequence\n
*^@RestrictsSuspension\n@SinceKotlin("1.3")\npublic abstract class SequenceScope<in T> internal
constructor() {\n    /**\n     * Yields a value to the [Iterator]
being built and suspends\n     * until the next value is requested.\n     * @sample
samples.collections.Sequences.Building.buildSequenceYieldAll\n     * @sample
samples.collections.Sequences.Building.buildFibonacciSequence\n     *^public abstract suspend fun yield(value:
T)\n\n    /**\n     * Yields all values from the `iterator` to the [Iterator] being built\n     * and suspends until all these
values are iterated and the next one is requested.\n     * @sample samples.collections.Sequences.Building.buildSequenceYieldAll\n
     *^public abstract suspend fun yieldAll(iterator: Iterator<T>)\n\n    /**\n     * Yields a collections of values to
the [Iterator] being built\n     * and suspends until all these values are iterated and the next one is requested.\n     *
@sample samples.collections.Sequences.Building.buildSequenceYieldAll\n     *^public
suspend fun yieldAll(elements: Iterable<T>) {\n        if (elements is Collection && elements.isEmpty()) return\n
return yieldAll(elements.iterator())\n    }\n\n    /**\n     * Yields potentially infinite sequence of values to the
[Iterator] being built\n     * and suspends until all these values are iterated and the next one is requested.\n     *
The sequence can be potentially infinite.\n     * @sample
samples.collections.Sequences.Building.buildSequenceYieldAll\n     *^public suspend fun yieldAll(sequence:
Sequence<T>) = yieldAll(sequence.iterator())\n}\n\nprivate typealias State = Int\nprivate const val
State_NotReady: State = 0\nprivate const val State_ManyNotReady: State = 1\nprivate const val State_ManyReady:
State = 2\nprivate const val State_Ready: State = 3\nprivate const val State_Done: State = 4\nprivate const val
State_Failed: State = 5\nprivate class SequenceBuilderIterator<T> : SequenceScope<T>(), Iterator<T>,
Continuation<Unit> {\n
    private var state = State_NotReady\n    private var nextValue: T? = null\n    private var nextIterator: Iterator<T>?
= null\n    var nextStep: Continuation<Unit>? = null\n\n    override fun hasNext(): Boolean {\n        while (true) {\n
            when (state) {\n                State_NotReady -> {}\n                State_ManyNotReady ->\n                if

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(nextIterator!!.hasNext()) {\n
    state = State_ManyReady\n
    return true\n
}
else {\n
    nextIterator = null\n
} \n
State_Done -> return false\n
State_Ready, State_ManyReady -> return true\n
else -> throw exceptionalState()\n
}\n\n
state
= State_Failed\n
val step = nextStep!!\n
nextStep = null\n
step.resume(Unit)\n
}\n
}\n\n
override fun next(): T {\n
    when (state) {\n
        State_NotReady, State_ManyNotReady
-> return nextNotReady()\n
        State_ManyReady -> {\n
            state = State_ManyNotReady\n
return nextIterator!!.next()\n
        }\n
        State_Ready -> {\n
            state = State_NotReady\n
@Suppress("UNCHECKED_CAST")\n
            val result = nextValue as T\n
            nextValue = null\n
return result\n
        }\n
        else -> throw exceptionalState()\n
    }\n
}\n\n
private fun nextNotReady(): T
{\n
    if (!hasNext()) throw NoSuchElementException() else return next()\n
}\n\n
private fun
exceptionalState(): Throwable = when (state) {\n
    State_Done -> NoSuchElementException()\n
    State_Failed
-> IllegalStateException("Iterator has failed.")\n
    else -> IllegalStateException("Unexpected state of the
iterator: $state")\n
}\n\n\n
override suspend fun yield(value: T) {\n
    nextValue = value\n
    state =
State_Ready\n
return suspendCoroutineUninterceptedOrReturn
{ c ->\n
    nextStep = c\n
    COROUTINE_SUSPENDED\n
}\n
}\n\n
override suspend fun
yieldAll(iterator: Iterator<T>) {\n
    if (!iterator.hasNext()) return\n
    nextIterator = iterator\n
    state =
State_ManyReady\n
return suspendCoroutineUninterceptedOrReturn { c ->\n
    nextStep = c\n
    COROUTINE_SUSPENDED\n
}\n
}\n\n
// Completion continuation implementation\n
override fun
resumeWith(result: Result<Unit>) {\n
    result.getOrThrow() // just rethrow exception if it is there\n
    state =
State_Done\n
}\n\n
override val context: CoroutineContext\n
get() = EmptyCoroutineContext\n
}\n\n
/*\n
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* Use of this source code is
governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n
package
kotlin.collections\n\n
internal fun checkWindowSizeStep(size:
Int, step: Int) {\n
    require(size > 0 && step > 0) {\n
        if (size != step)\n
            "Both size $size and step $step
must be greater than zero.\n"
        else\n
            "size $size must be greater than zero.\n"
    }\n
}\n\n
internal fun <T>
Sequence<T>.windowedSequence(size: Int, step: Int, partialWindows: Boolean, reuseBuffer: Boolean):
Sequence<List<T>> {\n
    checkWindowSizeStep(size, step)\n
    return Sequence { windowedIterator(iterator(),
size, step, partialWindows, reuseBuffer) }\n
}\n\n
internal fun <T> windowedIterator(iterator: Iterator<T>, size: Int,
step: Int, partialWindows: Boolean, reuseBuffer: Boolean): Iterator<List<T>> {\n
    if (!iterator.hasNext()) return
EmptyIterator\n
return iterator<List<T>> {\n
        val bufferInitialCapacity = size.coerceAtMost(1024)\n
        val
gap = step - size\n
        if (gap >= 0) {\n
            var buffer = ArrayList<T>(bufferInitialCapacity)\n
            var skip =
0\n
            for (e in iterator) {\n
                if (skip > 0) { skip -= 1; continue }\n
                buffer.add(e)\n
                if (buffer.size == size) {\n
yield(buffer)\n
                    if (reuseBuffer) buffer.clear() else buffer = ArrayList(size)\n
                    skip = gap\n
                }\n
            }\n
            if (buffer.isNotEmpty()) {\n
                if (partialWindows || buffer.size == size)
yield(buffer)\n
            } else {\n
                var buffer = RingBuffer<T>(bufferInitialCapacity)\n
                for (e in
iterator) {\n
                    buffer.add(e)\n
                    if (buffer.isFull()) {\n
                        if (buffer.size < size) { buffer =
buffer.expanded(maxCapacity = size); continue }\n
                        yield(if (reuseBuffer) buffer else
ArrayList(buffer))\n
                        buffer.removeFirst(step)\n
                    }\n
                }\n
                if (partialWindows) {\n
                    while (buffer.size > step) {\n
                        yield(if (reuseBuffer)
buffer else ArrayList(buffer))\n
                        buffer.removeFirst(step)\n
                    }\n
                }\n
                if
(buffer.isNotEmpty()) yield(buffer)\n
            }\n
        }\n
}\n\n\n
internal class MovingSubList<out E>(private val
list: List<E>) : AbstractList<E>(), RandomAccess {\n
    private var fromIndex: Int = 0\n
    private var _size: Int =
0\n\n
    fun move(fromIndex: Int, toIndex: Int) {\n
        checkRangeIndexes(fromIndex, toIndex, list.size)\n
this.fromIndex = fromIndex\n
        this._size = toIndex - fromIndex\n
    }\n\n
    override fun get(index: Int): E {\n
        checkElementIndex(index, _size)\n
        return list[fromIndex + index]\n
    }\n\n
    override val size: Int get() =
_size\n
}\n\n\n
/*\n
Provides ring buffer implementation.\n
*/\n\n
* Buffer overflow is not allowed so [add] doesn't
overwrite tail but raises an exception.\n
*/\n\n
private class RingBuffer<T>(private val buffer: Array<Any?>,

```





```

i\n}\n\n@ExperimentalUnsignedTypes\nprivate fun quickSort(\n    array: UShortArray, left: Int, right: Int) {\n    val
index = partition(array, left, right)\n    if (left < index - 1)\n        quickSort(array, left, index - 1)\n    if (index <
right)\n        quickSort(array, index, right)\n}\n\n// UIntArray
=====
erimentalUnsignedTypes\nprivate fun partition(\n    array: UIntArray, left: Int, right: Int): Int {\n    var i = left\n
var j = right\n    val pivot = array[(left + right) / 2]\n    while (i <= j)
{\n        while (array[i] < pivot)\n            i++\n        while (array[j] > pivot)\n            j--\n        if (i <= j) {\n
val tmp = array[i]\n            array[i] = array[j]\n            array[j] = tmp\n            i++\n            j--\n        }\n    }\n
return i\n}\n\n@ExperimentalUnsignedTypes\nprivate fun quickSort(\n    array: UIntArray, left: Int, right: Int) {\n
val index = partition(array, left, right)\n    if (left < index - 1)\n        quickSort(array, left, index - 1)\n    if (index <
right)\n        quickSort(array, index, right)\n}\n\n// ULongArray
=====
erimentalUnsignedTypes\nprivate fun partition(\n    array: ULongArray, left: Int, right: Int): Int {\n    var i = left\n
var j = right\n    val pivot = array[(left + right) / 2]\n    while (i <= j) {\n        while (array[i] < pivot)\n            i++\n
while (array[j] > pivot)\n            j--\n        if (i <=
j) {\n            val tmp = array[i]\n                array[i] = array[j]\n                array[j] = tmp\n                i++\n                j--\n            }\n
        }\n        return i\n    }\n}\n\n@ExperimentalUnsignedTypes\nprivate fun quickSort(\n    array: ULongArray, left: Int, right:
Int) {\n    val index = partition(array, left, right)\n    if (left < index - 1)\n        quickSort(array, left, index - 1)\n    if
(index < right)\n        quickSort(array, index, right)\n}\n\n\n// Interfaces
=====
\n/**\n
* Sorts the given array using qsort algorithm.\n * \n@ExperimentalUnsignedTypes\ninternal fun sortArray(array:
UByteArray, fromIndex: Int, toIndex: Int) = quickSort(array, fromIndex, toIndex -
1)\n@ExperimentalUnsignedTypes\ninternal fun sortArray(array: UShortArray, fromIndex: Int, toIndex: Int) =
quickSort(array, fromIndex, toIndex - 1)\n@ExperimentalUnsignedTypes\ninternal fun sortArray(array: UIntArray,
fromIndex: Int, toIndex:
Int) = quickSort(array, fromIndex, toIndex - 1)\n@ExperimentalUnsignedTypes\ninternal fun sortArray(array:
ULongArray, fromIndex: Int, toIndex: Int) = quickSort(array, fromIndex, toIndex - 1)", "/*\n * Copyright 2010-
2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n * \n\npackage kotlin\n\nimport
kotlin.internal.InlineOnly\n\n/**\n * Compares this object with the specified object for order. Returns zero if this
object is equal\n * to the specified [other] object, a negative number if it's less than [other], or a positive number\n *
if it's greater than [other].\n * \n * This function delegates to [Comparable.compareTo] and allows to call it in infix
form.\n * \n@InlineOnly\n@SinceKotlin("1.6")\npublic inline infix fun <T> Comparable<T>.compareTo(other:
T): Int =\n    this.compareTo(other)\n", "/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n * \n\npackage kotlin.contracts\n\nimport
kotlin.internal.ContractsDsl\nimport kotlin.internal.InlineOnly\n\n/**\n * This marker distinguishes the
experimental contract declaration API and is used to opt-in for that feature\n * when declaring contracts of user
functions.\n * \n * Any usage of a declaration annotated with `@ExperimentalContracts` must be accepted either
by\n * annotating that usage with the [OptIn] annotation, e.g. `@OptIn(ExperimentalContracts::class)`,\n * or by
using the compiler argument `-opt-in=kotlin.contracts.ExperimentalContracts`.\n
*\n@Retention(AnnotationRetention.BINARY)\n@SinceKotlin("1.3")\n@RequiresOptIn\n@MustBeDocumente
d\npublic annotation class ExperimentalContracts\n\n/**\n * Provides a scope, where the functions of the contract
DSL, such as [returns], [callsInPlace], etc.,\n * can be used to
describe the contract of a function.\n * \n * This type is used as a receiver type of the lambda function passed to the
[contract] function.\n * \n * @see contract\n
*\n@ContractsDsl\n@ExperimentalContracts\n@SinceKotlin("1.3")\npublic interface ContractBuilder {\n    /**\n
* Describes a situation when a function returns normally, without any exceptions thrown.\n    * \n    * Use

```

```

[SimpleEffect.implies] function to describe a conditional effect that happens in such case.\n * \n * \n //
@sample samples.contracts.returnsContract\n @ContractsDsl public fun returns(): Returns\n\n /**\n *
Describes a situation when a function returns normally with the specified return [value].\n * \n * The possible
values of [value] are limited to `true`, `false` or `null`.\n * \n * Use [SimpleEffect.implies] function to describe a
conditional effect that happens in such case.\n * \n * \n // @sample samples.contracts.returnsTrueContract\n
// @sample samples.contracts.returnsFalseContract\n
// @sample samples.contracts.returnsNullContract\n @ContractsDsl public fun returns(value: Any?):
Returns\n\n /**\n * Describes a situation when a function returns normally with any value that is not `null`.\n
*\n * Use [SimpleEffect.implies] function to describe a conditional effect that happens in such case.\n * \n
*\n // @sample samples.contracts.returnsNotNullContract\n @ContractsDsl public fun returnsNotNull():
ReturnsNotNull\n\n /**\n * Specifies that the function parameter [lambda] is invoked in place.\n * \n * This
contract specifies that:\n * 1. the function [lambda] can only be invoked during the call of the owner function,\n
* and it won't be invoked after that owner function call is completed;\n * 2. _(optionally)_ the function [lambda]
is invoked the amount of times specified by the [kind] parameter,\n * see the [InvocationKind] enum for possible
values.\n * \n * A
function declaring the `callsInPlace` effect must be _inline_.\n * \n * \n /* @sample
samples.contracts.callsInPlaceAtMostOnceContract\n * @sample
samples.contracts.callsInPlaceAtLeastOnceContract\n * @sample
samples.contracts.callsInPlaceExactlyOnceContract\n * @sample
samples.contracts.callsInPlaceUnknownContract\n * \n @ContractsDsl public fun <R> callsInPlace(lambda:
Function<R>, kind: InvocationKind = InvocationKind.UNKNOWN): CallsInPlace\n}\n\n/**\n * Specifies how
many times a function invokes its function parameter in place.\n * \n * See [ContractBuilder.callsInPlace] for the
details of the call-in-place function contract.\n
*\n @ContractsDsl\n @ExperimentalContracts\n @SinceKotlin("1.3")\n public enum class InvocationKind {\n
/**\n * A function parameter will be invoked one time or not invoked at all.\n * \n // @sample
samples.contracts.callsInPlaceAtMostOnceContract\n @ContractsDsl AT_MOST_ONCE,\n\n /**\n * A
function parameter
will be invoked one or more times.\n * \n * \n // @sample
samples.contracts.callsInPlaceAtLeastOnceContract\n @ContractsDsl AT_LEAST_ONCE,\n\n /**\n * A
function parameter will be invoked exactly one time.\n * \n * \n // @sample
samples.contracts.callsInPlaceExactlyOnceContract\n @ContractsDsl EXACTLY_ONCE,\n\n /**\n * A
function parameter is called in place, but it's unknown how many times it can be called.\n * \n * \n // @sample
samples.contracts.callsInPlaceUnknownContract\n @ContractsDsl UNKNOWN\n}\n\n/**\n * Specifies the
contract of a function.\n * \n * The contract description must be at the beginning of a function and have at least one
effect.\n * \n * Only the top-level functions can have a contract for now.\n * \n * @param builder the lambda where
the contract of a function is described with the help of the [ContractBuilder] members.\n * \n * \n /* @sample
samples.contracts.returnsContract\n* @sample samples.contracts.returnsTrueContract\n*
@sample samples.contracts.returnsFalseContract\n* @sample samples.contracts.returnsNullContract\n* @sample
samples.contracts.returnsNotNullContract\n* @sample samples.contracts.callsInPlaceAtMostOnceContract\n*
@sample samples.contracts.callsInPlaceAtLeastOnceContract\n* @sample
samples.contracts.callsInPlaceExactlyOnceContract\n* @sample
samples.contracts.callsInPlaceUnknownContract\n*\n @ContractsDsl\n @ExperimentalContracts\n @InlineOnly\n @
SinceKotlin("1.3")\n @Suppress("UNUSED_PARAMETER")\n public inline fun contract(builder:
ContractBuilder.() -> Unit) { }\n", "/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n * \n *\n package kotlin.coroutines\n\n /**\n * Marks coroutine context element that
intercepts coroutine continuations.\n * The coroutines framework uses [ContinuationInterceptor.Key] to retrieve the
interceptor

```

```

and\n * intercepts all coroutine continuations with [interceptContinuation] invocations.\n *\n *
[ContinuationInterceptor] behaves like a [polymorphic element][AbstractCoroutineContextKey], meaning that\n *
its implementation delegates [get][CoroutineContext.Element.get] and
[minusKey][CoroutineContext.Element.minusKey]\n * to [getPolymorphicElement] and [minusPolymorphicKey]
respectively.\n * [ContinuationInterceptor] subtypes can be extracted from the coroutine context using either
[ContinuationInterceptor.Key]\n * or subtype key if it extends [AbstractCoroutineContextKey].\n
*\n@SinceKotlin("1.3")\npublic interface ContinuationInterceptor : CoroutineContext.Element {\n /**\n *
The key that defines *the* context interceptor.\n * companion object Key :
CoroutineContext.Key<ContinuationInterceptor>\n\n /**\n * Returns continuation that wraps the original
[continuation], thus intercepting all resumptions.\n * This function is invoked by coroutine framework
when needed and the resulting continuations are\n * cached internally per each instance of the original
[continuation].\n *\n * This function may simply return original [continuation] if it does not want to intercept
this particular continuation.\n *\n * When the original [continuation] completes, coroutine framework invokes
[releaseInterceptedContinuation]\n * with the resulting continuation if it was intercepted, that is if
`interceptContinuation` had previously\n * returned a different continuation instance.\n */\n public fun <T>
interceptContinuation(continuation: Continuation<T>): Continuation<T>\n\n /**\n * Invoked for the
continuation instance returned by [interceptContinuation] when the original\n * continuation completes and will
not be used anymore. This function is invoked only if [interceptContinuation]\n * had returned a different
continuation instance from the one it was invoked with.\n *\n * Default implementation
does nothing.\n *\n * @param continuation Continuation instance returned by this interceptor's
[interceptContinuation] invocation.\n */\n public fun releaseInterceptedContinuation(continuation:
Continuation<*>) {\n /** do nothing by default */\n }\n\n public override operator fun <E :
CoroutineContext.Element> get(key: CoroutineContext.Key<E>): E? {\n // getPolymorphicKey specialized for
ContinuationInterceptor key\n @OptIn(ExperimentalStdlibApi::class)\n if (key is
AbstractCoroutineContextKey<*, *>) {\n @Suppress("UNCHECKED_CAST")\n return if
(key.isSubKey(this.key)) key.tryCast(this) as? E else null\n }\n @Suppress("UNCHECKED_CAST")\n
return if (ContinuationInterceptor === key) this as E else null\n }\n\n public override fun minusKey(key:
CoroutineContext.Key<*>): CoroutineContext {\n // minusPolymorphicKey specialized for
ContinuationInterceptor key\n @OptIn(ExperimentalStdlibApi::class)\n
if (key is AbstractCoroutineContextKey<*, *>) {\n return if (key.isSubKey(this.key) &&
key.tryCast(this) != null) EmptyCoroutineContext else this\n }\n return if (ContinuationInterceptor ===
key) EmptyCoroutineContext else this\n }\n}\n", "*/\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines\n\n/**\n * Persistent context for the
coroutine. It is an indexed set of [Element] instances.\n * An indexed set is a mix between a set and a map.\n *
Every element in this set has a unique [Key].\n */\n@SinceKotlin("1.3")\npublic interface CoroutineContext {\n\n /**\n * Returns the element with the given [key] from this context or `null`.\n */\n public operator fun <E :
Element> get(key: Key<E>): E?\n\n /**\n * Accumulates entries
of this context starting with [initial] value and applying [operation]\n * from left to right to current accumulator
value and each element of this context.\n */\n public fun <R> fold(initial: R, operation: (R, Element) -> R):
R\n\n /**\n * Returns a context containing elements from this context and elements from other [context].\n *
The elements from this context with the same key as in the other one are dropped.\n */\n public operator fun
plus(context: CoroutineContext): CoroutineContext =\n if (context === EmptyCoroutineContext) this else // fast
path -- avoid lambda creation\n context.fold(this) { acc, element ->\n val removed =
acc.minusKey(element.key)\n if (removed === EmptyCoroutineContext) element else {\n //
make sure interceptor is always last in the context (and thus is fast to get when present)\n val interceptor
= removed[ContinuationInterceptor]\n

```

```

        if (interceptor == null) CombinedContext(removed, element) else {
            val left = removed.minusKey(ContinuationInterceptor)
            if (left === EmptyCoroutineContext) CombinedContext(element, interceptor) else
                CombinedContext(CombinedContext(left, element), interceptor)
        }
    }

    /** Returns a context containing elements from this context, but without an element with the specified [key]. */
    public fun minusKey(key: Key<*>): CoroutineContext {
        /** Key for the elements of [CoroutineContext]. [E] is a type of element with this key. */
        public interface Key<E : Element> {
            /** An element of the [CoroutineContext]. An element of the coroutine context is a singleton context by itself. */
            public interface Element {
                /** A key of this coroutine context element. */
                public val key: Key<*>
                public override operator fun <E : Element> get(key: Key<E>): E? =
                    @Suppress("UNCHECKED_CAST") if (this.key == key) this as E else null
                public override fun <R> fold(initial: R, operation: (R, Element) -> R): R =
                    operation(initial, this)
                public override fun minusKey(key: Key<*>): CoroutineContext =
                    if (this.key == key) EmptyCoroutineContext else this
            }
        }
    }

    /** Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.
     * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.
     */
    @package kotlin.coroutines
    @import kotlin.coroutines.CoroutineContext.Element
    @import kotlin.coroutines.CoroutineContext.Key
    /** Base class for [CoroutineContext.Element] implementations.
     * Base class for [CoroutineContext.Key] associated with polymorphic [CoroutineContext.Element] implementation.
     * Polymorphic element implementation implies delegating its [get][Element.get] and [minusKey][Element.minusKey] to [getPolymorphicElement] and [minusPolymorphicKey] respectively.
     * Polymorphic elements can be extracted from the coroutine context using both element key and its supertype key.
     * Example of polymorphic elements:
     * ````
     * open class BaseElement : CoroutineContext.Element {
     *     companion object Key : CoroutineContext.Key<BaseElement>
     *     override val key: CoroutineContext.Key<*> get() = Key
     *     // It is important to use getPolymorphicKey and minusPolymorphicKey
     *     override fun <E : CoroutineContext.Element> get(key: CoroutineContext.Key<E>): E? =
         getPolymorphicElement(key)
     *     override fun minusKey(key: CoroutineContext.Key<*>): CoroutineContext =
         minusPolymorphicKey(key)
     * }
     * ````
     * class DerivedElement : BaseElement() {
     *     companion object Key :
     * AbstractCoroutineContextKey<BaseElement, DerivedElement>(BaseElement, { it as? DerivedElement })
     * }
     * // Now it is possible to query both `BaseElement` and `DerivedElement`
     * someContext[BaseElement] // Returns BaseElement?, non-null both for BaseElement and DerivedElement instances
     * someContext[DerivedElement] // Returns DerivedElement?, non-null only for DerivedElement instance
     * ````
     * @param B base class of a polymorphic element
     * @param baseKey an instance of base key
     * @param E element type associated with the current key
     * @param safeCast a function that can safely cast abstract [CoroutineContext.Element] to the concrete [E] type
     * and return the element if it is a subtype of [E] or `null` otherwise.
     */
    @SinceKotlin("1.3")
    @ExperimentalStdlibApi
    public abstract class AbstractCoroutineContextKey<B : Element, E : B> {
        baseKey: Key<B>,
        private val safeCast: (element: Element) -> E?
        private val topmostKey: Key<*> = if (baseKey is AbstractCoroutineContextKey<*, *>)
            baseKey.topmostKey else baseKey
        internal fun tryCast(element: Element): E? = safeCast(element)
        internal fun isSubKey(key: Key<*>): Boolean = key === this || topmostKey === key
    }

    /** Returns the current element if it is associated with the given [key] in a polymorphic manner or `null` otherwise.
     * This method returns non-null value if either [Element.key] is equal to the given [key] or if the [key] is associated with [Element.key] via [AbstractCoroutineContextKey].
     * See [AbstractCoroutineContextKey] for the example of usage.
     */
    @SinceKotlin("1.3")
    @ExperimentalStdlibApi
    public fun <E : Element> Element.getPolymorphicElement(key: Key<E>): E? {
        if (key is AbstractCoroutineContextKey<*, *>) {
            @Suppress("UNCHECKED_CAST") return if (key.isSubKey(this.key)) key.tryCast(this) as? E else null
        }
    }

```

```

}\n  @Suppress("UNCHECKED_CAST")\n
    return if (this.key === key) this as E else null}\n\n/**\n * Returns empty coroutine context if the element is
associated with the given [key] in a polymorphic manner\n * or `null` otherwise.\n * This method returns empty
context if either [Element.key] is equal to the given [key] or if the [key] is associated\n * with [Element.key] via
[AbstractCoroutineContextKey].\n * See [AbstractCoroutineContextKey] for the example of usage.\n
*/\n@SinceKotlin("1.3")\n@ExperimentalStdlibApi\npublic fun Element.minusPolymorphicKey(key: Key<*>):
CoroutineContext {\n    if (key is AbstractCoroutineContextKey<*, *>) {\n        return if (key.isSubKey(this.key)
&& key.tryCast(this) != null) EmptyCoroutineContext else this\n    }\n    return if (this.key === key)
EmptyCoroutineContext else this}\n\n/**\n * An empty coroutine context.\n */\n@SinceKotlin("1.3")\npublic
object EmptyCoroutineContext : CoroutineContext, Serializable {\n    private const val serialVersionUID:
Long = 0\n    private fun readResolve(): Any = EmptyCoroutineContext\n    public override fun <E : Element>
get(key: Key<E>): E? = null\n    public override fun <R> fold(initial: R, operation: (R, Element) -> R): R = initial\n
public override fun plus(context: CoroutineContext): CoroutineContext = context\n    public override fun
minusKey(key: Key<*>): CoroutineContext = this\n    public override fun hashCode(): Int = 0\n    public override
fun toString(): String = "EmptyCoroutineContext"\n\n//----- internal impl -----}\n\n//
this class is not exposed, but is hidden inside implementations\n// this is a left-biased list, so that `plus` works
naturally\n@SinceKotlin("1.3")\ninternal class CombinedContext(\n    private val left: CoroutineContext,\n
private val element: Element\n) : CoroutineContext, Serializable {\n    override fun <E : Element> get(key:
Key<E>): E? {\n        var cur = this\n        while (true) {\n            cur.element[key]?.let
{\n                return it\n            }\n            val next = cur.left\n            if (next is CombinedContext) {\n
                cur = next\n            }\n        }\n        return next[key]\n    }\n    override fun <R> fold(initial: R, operation:
(R, Element) -> R): R =\n        operation(left.fold(initial, operation), element)\n    public override fun
minusKey(key: Key<*>): CoroutineContext {\n        element[key]?.let { return left }\n        val newLeft =
left.minusKey(key)\n        return when {\n            newLeft === left -> this\n            newLeft ===
EmptyCoroutineContext -> element\n            else -> CombinedContext(newLeft, element)\n        }\n    }\n    private fun size(): Int {\n        var cur = this\n        var size = 2\n        while (true) {\n            cur = cur.left as?
CombinedContext?: return size\n            size++\n        }\n    }\n    private fun contains(element: Element): Boolean
= \n        get(element.key)
=== element\n    private fun containsAll(context: CombinedContext): Boolean {\n        var cur = context\n        while (true) {\n            if (!contains(cur.element)) return false\n            val next = cur.left\n            if (next is
CombinedContext) {\n                cur = next\n            } else {\n                return contains(next as Element)\n            }\n        }\n    }\n    override fun equals(other: Any?): Boolean = \n        this === other || other is CombinedContext
&& other.size() == size() && other.containsAll(this)\n    override fun hashCode(): Int = left.hashCode() +
element.hashCode()\n    override fun toString(): String = \n        "[" + fold("") { acc, element ->\n            if
(acc.isEmpty()) element.toString() else "$acc, $element"\n        } + "]"}\n    private fun writeReplace(): Any {\n
        val n = size()\n        val elements = arrayOfNulls<CoroutineContext>(n)\n        var index = 0\n        fold(Unit) { _,
element -> elements[index++]
= element }\n        check(index == n)\n        @Suppress("UNCHECKED_CAST")\n        return
Serialized(elements as Array<CoroutineContext>)\n    }\n    private class Serialized(val elements:
Array<CoroutineContext>) : Serializable {\n        companion object {\n            private const val serialVersionUID:
Long = 0L\n        }\n        private fun readResolve(): Any = elements.fold(EmptyCoroutineContext,
CoroutineContext::plus)\n    }\n}\n\n"/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmName("IntrinsicsKt")\n@file:kotlin.jvm.JvmMultifileClass\n\npackage
kotlin.coroutines.intrinsics\n\nimport kotlin.contracts.*\nimport kotlin.coroutines.*\nimport
kotlin.internal.InlineOnly\n\n/**\n * Obtains the current continuation instance inside suspend functions and either
suspends\n * currently running

```

coroutine or returns result immediately without suspension.

If the [block] returns the special [COROUTINE\_SUSPENDED] value, it means that suspend function did suspend the execution and will not return any result immediately. In this case, the [Continuation] provided to the [block] shall be resumed by invoking [Continuation.resumeWith] at some moment in the future when the result becomes available to resume the computation.

Otherwise, the return value of the [block] must have a type assignable to [T] and represents the result of this suspend function. It means that the execution was not suspended and the [Continuation] provided to the [block] shall not be invoked.

As the result type of the [block] is declared as `Any?` and cannot be correctly type-checked, its proper return type remains on the conscience of the suspend function's author.

Invocation of [Continuation.resumeWith] resumes coroutine directly in the invoker's thread without going through the [ContinuationInterceptor] that might be present in the coroutine's [CoroutineContext]. It is the invoker's responsibility to ensure that a proper invocation context is established.

[Continuation.intercepted] can be used to acquire the intercepted continuation.

Note that it is not recommended to call either [Continuation.resume] nor [Continuation.resumeWithException] functions synchronously in the same stackframe where suspension function is run. Use [suspendCoroutine] as a safer way to obtain current continuation instance.

```

@SinceKotlin("1.3")@InlineOnly@Suppress("UNUSED_PARAMETER",
"RedundantSuspendModifier")
public suspend inline fun <T>
suspendCoroutineUninterceptedOrReturn(crossinline block: (Continuation<T>) -> Any?): T {
    contract {
        callsInPlace(block, InvocationKind.EXACTLY_ONCE)
    }
    throw NotImplementedError("Implementation of
suspendCoroutineUninterceptedOrReturn is intrinsic")
}


```

This value is used as a return value of [suspendCoroutineUninterceptedOrReturn] `block` argument to state that the execution was suspended and will not return any result immediately.

**Note:** this value should not be used in general code. Using it outside of the context of [suspendCoroutineUninterceptedOrReturn] function return value (including, but not limited to, storing this value in other properties, returning it from other functions, etc) can lead to unspecified behavior of the code.

It is implemented as property with getter to avoid ProGuard <clinit> problem with multifile IntrinsicKt class

```

@SinceKotlin("1.3")
public val COROUTINE_SUSPENDED:
Any get() = CoroutineSingletons.COROUTINE_SUSPENDED


```

Using enum here ensures two important properties:

1. It makes SafeContinuation serializable with all kinds of serialization frameworks (since all of them natively support enums)
2. It improves debugging experience, since you clearly see toString() value of those objects and what package they come from

This class is Published API via serialized representation of SafeContinuation, don't rename/move internal enum class

```

CoroutineSingletons { COROUTINE_SUSPENDED, UNDECIDED, RESUMED }


```

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```

package kotlin.enums
import kotlin.jvm.Volatile


```

A specialized immutable implementation of [List] interface that contains all enum entries of the specified enum type [E]. [EnumEntries] contains all enum entries in the order they are declared in the source code, consistently with the corresponding [Enum.ordinal] values.

An instance of this interface can only be obtained from `EnumClass.entries` property.

```

@ExperimentalStdlibApi
@SinceKotlin("1.8")
public sealed
interface EnumEntries<E : Enum<E>> :
List<E>
@PublishedApi
@ExperimentalStdlibApi
@SinceKotlin("1.8") // Used by JVM compiler
internal fun <E : Enum<E>> enumEntries(entriesProvider: () -> Array<E>): EnumEntries<E> =
EnumEntriesList(entriesProvider)
@PublishedApi
@ExperimentalStdlibApi
@SinceKotlin("1.8") // Used by Native/JS compilers and Java serialization
internal fun <E : Enum<E>> enumEntries(entries: Array<E>):
EnumEntries<E> = EnumEntriesList { entries }.also {
    /* Here we are enforcing initialization of _entries
property. It is required because of two reasons.
1. In old Native mm the object will be frozen after
creation, so it must be immutable
2. Native doesn't support @Volatile for now, so this initialization is not
generally safe, if done after object is published.
This is very implementation-dependent hack,
and it should be removed when/if both reasons above are gone.
*/
    it.size
}


```



between the two values. `*\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline infix fun Byte.xor(other: Byte): Byte = (this.toInt() xor other.toInt()).toByte()\n\n/** Inverts the bits in this value.`

`*\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.inv(): Byte = (this.toInt().inv()).toByte()\n\n\n/** Performs a bitwise AND operation between the two values.`

`*\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline infix fun Short.and(other: Short): Short = (this.toInt() and other.toInt()).toShort()\n\n\n/** Performs a bitwise OR operation between the two values.`

`*\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline infix fun Short.or(other: Short): Short = (this.toInt() or other.toInt()).toShort()\n\n\n/** Performs a bitwise XOR operation between the two values.`

`*\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline infix fun Short.xor(other: Short): Short = (this.toInt() xor other.toInt()).toShort()\n\n\n/**`

Inverts the bits in this value. `*\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline fun Short.inv(): Short = (this.toInt().inv()).toShort()\n\n\n", "/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n@package kotlin.experimental\n\n\n/**\n * The experimental marker for type inference augmenting annotations.\n * Any usage of a declaration annotated with @ExperimentalTypeInference must be accepted either by\n * annotating that usage with the [OptIn] annotation, e.g. @OptIn(ExperimentalTypeInference::class),\n * or by using the compiler argument -opt-in=kotlin.experimental.ExperimentalTypeInference.\n */\n@RequiresOptIn(level = RequiresOptIn.Level.ERROR)\n@MustBeDocumented\n@Retention(AnnotationRetention.BINARY)\n@Target(AnnotationTarget.ANNOTATION_CLASS)\n@SinceKotlin("1.3")\npublic annotation class ExperimentalTypeInference\n", "/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n@package kotlin.internal\n\n\n/**\n * Specifies that the corresponding type should be ignored during type inference.\n */\n@Target(AnnotationTarget.TYPE)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class NoInfer\n\n\n/**\n * Specifies that the constraint built for the type during type inference should be an equality one.\n */\n@Target(AnnotationTarget.TYPE)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class Exact\n\n\n/**\n * Specifies that a corresponding member has the lowest priority in overload resolution.\n */\n@Target(AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY, AnnotationTarget.CONSTRUCTOR)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class LowPriorityInOverloadResolution\n\n\n/**\n * Specifies that the corresponding member has the highest priority in overload resolution. Effectively this means that\n * an extension annotated with this annotation will win in overload resolution over a member with the same signature.\n */\n@Target(AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class HidesMembers\n\n\n/**\n * The value of this type parameter should be mentioned in input types (argument types, receiver type or expected type).\n */\n@Target(AnnotationTarget.TYPE_PARAMETER)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class OnlyInputTypes\n\n\n/**\n * Specifies that this function should not be called directly without inlining\n */\n@Target(AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY, AnnotationTarget.PROPERTY_GETTER, AnnotationTarget.PROPERTY_SETTER)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class InlineOnly\n\n\n/**\n * Specifies that this declaration can have dynamic receiver type.\n */\n@Target(AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class DynamicExtension\n\n\n/**\n * The value of this parameter should be a property reference expression (this::foo), referencing a lateinit property,\n * the backing field of which is accessible at the point where the corresponding argument is passed.\n */`



`@Target(AnnotationTarget.VALUE_PARAMETER)`  
`@Retention(AnnotationRetention.BINARY)`  
`@SinceKotlin("1.2")`  
internal annotation class `AccessibleLateinitPropertyLiteral`  
\* Specifies that this declaration is only completely supported since the specified version.  
\* The Kotlin compiler of an earlier version is going to report a diagnostic on usages of this declaration.  
\* The diagnostic message can be specified with [message], or via [errorCode] (takes less space, but might not be immediately clear to the user). The diagnostic severity can be specified with [level]: WARNING/ERROR

mean that either a warning or an error is going to be reported, HIDDEN means that the declaration is going to be removed from resolution completely.  
\* [versionKind] specifies which version should be compared with the [version] value, when compiling the usage of the annotated declaration.  
\* Note that prior to 1.2, only [RequireKotlinVersionKind.LANGUAGE\_VERSION] was supported, so the Kotlin compiler before 1.2 is going to treat any [RequireKotlin] as if it requires the language version. Since 1.2, the Kotlin compiler supports [RequireKotlinVersionKind.LANGUAGE\_VERSION], [RequireKotlinVersionKind.COMPILER\_VERSION] and [RequireKotlinVersionKind.API\_VERSION].  
\* If the actual value of [versionKind] is something different (e.g. a new version kind, added in future versions of Kotlin), Kotlin 1.2 is going to ignore this [RequireKotlin] altogether, whereas Kotlin before 1.2 is going to treat this as a requirement on the language version.  
\* This annotation is erased at compile time; its arguments are stored in a more compact form in the Kotlin metadata.

`@Target(AnnotationTarget.CLASS, AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY, AnnotationTarget.CONSTRUCTOR, AnnotationTarget.TYPEALIAS)`  
`@Retention(AnnotationRetention.SOURCE)`  
`@Repeatable`  
`@SinceKotlin("1.2")`  
internal annotation class `RequireKotlin`  
`val version: String,`  
`val message: String = "",`  
`val level: DeprecationLevel = DeprecationLevel.ERROR,`  
`val versionKind: RequireKotlinVersionKind = RequireKotlinVersionKind.LANGUAGE_VERSION,`  
`val errorCode: Int = -1`  
\* The kind of the version that is required by [RequireKotlin].  
\* `@SinceKotlin("1.2")`  
internal enum class `RequireKotlinVersionKind` {  
LANGUAGE\_VERSION,  
COMPILER\_VERSION,  
API\_VERSION,  
}  
\* Specifies that this declaration is a part of special DSL, used for constructing function's contract.  
\* `@Retention(AnnotationRetention.BINARY)`  
`@SinceKotlin("1.2")`  
internal annotation class `ContractsDsl`  
/\* Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.  
\* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.  
package kotlin.internal  
// a mod b (in arithmetical sense)  
private fun mod(a: Int, b: Int): Int {  
val mod = a % b  
return if (mod >= 0) mod else mod + b  
}  
private fun mod(a: Long, b: Long): Long {  
val mod = a % b  
return if (mod >= 0) mod else mod + b  
}  
// (a - b) mod c  
private fun differenceModulo(a: Int, b: Int, c: Int): Int {  
return mod(mod(a, c) - mod(b, c), c)  
}  
private fun differenceModulo(a: Long, b: Long, c: Long): Long {  
return mod(mod(a, c) - mod(b, c), c)  
}  
\* Calculates the final element of a bounded arithmetic progression, i.e. the last element of the progression which is in the range from [start] to [end] in case of a positive [step], or from [end] to [start] in case of a negative [step].  
\* No validation on passed parameters is performed. The given parameters should satisfy the condition:  
\* - either `step > 0` and `start <= end`,  
\* - or `step < 0` and `start >= end`.  
\* @param start first element of the progression  
\* @param end ending bound for the progression  
\* @param step increment, or difference of successive elements in the progression  
\* @return the final element of the progression  
\* @suppress  
@PublishedApi  
internal fun getProgressionLastElement(start: Int, end: Int, step: Int): Int = when {  
step > 0 -> if (start >= end) end else end - differenceModulo(end, start, step)  
step < 0 -> if (start <= end) end else end + differenceModulo(start, end, -step)  
else -> throw  
kotlin.IllegalArgumentException("Step is zero.")  
}  
\* Calculates the final element of a bounded arithmetic progression, i.e. the last element of the progression which is in the range from [start] to [end] in case of a positive [step], or from [end] to [start] in case of a negative [step].  
\* No validation on passed parameters is performed. The given parameters should satisfy the condition:  
\* - either `step > 0` and `start <= end`,  
\* - or `step < 0` and `start >= end`.  
\* @param start first element of the progression  
\* @param end ending bound for the progression  
\* @param step increment, or difference of successive elements in the progression  
\* @return the final element of the progression

```

@param end ending bound for the progression\n * @param step increment, or difference of successive elements in
the progression\n * @return the final element of the progression\n * @suppress\n */\n@PublishedApi\ninternal fun
getProgressionLastElement(start: Long, end: Long, step: Long): Long = when {\n    step > 0 -> if (start >= end) end
else end - differenceModulo(end, start, step)\n    step < 0 -> if (start <= end) end else end + differenceModulo(start,
end, -step)\n    else -> throw kotlin.IllegalArgumentException("Step is zero.")\n}\n"/*\n * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of
this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\npackage kotlin.properties\n\nimport kotlin.reflect.KProperty\n\n/**\n * Standard property delegates.\n
*/\n\npublic object Delegates {\n    /**\n     * Returns a property delegate for a read/write property with a non-`null`
value that is initialized not during\n     * object construction time but at a later time. Trying to read the property
before the initial value has been\n     * assigned results in an exception.\n     */\n     * @sample
samples.properties.Delegates.notNullDelegate\n     */\n     public fun <T : Any> notNull():
ReadWriteProperty<Any?, T> = NotNullVar()\n\n     /**\n     * Returns a property delegate for a read/write property
that calls a specified callback function when changed.\n     * @param initialValue the initial value of the property.\n
     * @param onChange the callback which is called after the change of the property is made. The value of the
property\n
     * has already been changed when this callback is invoked.\n     */\n     * @sample
samples.properties.Delegates.observableDelegate\n     */\n     public inline fun <T> observable(initialValue: T,
crossinline onChange: (property: KProperty<*>, oldValue: T, newValue: T) -> Unit):\n
ReadWriteProperty<Any?, T> =\n         object : ObservableProperty<T>(initialValue) {\n             override fun
afterChange(property: KProperty<*>, oldValue: T, newValue: T) = onChange(property, oldValue, newValue)\n
        }\n\n     /**\n     * Returns a property delegate for a read/write property that calls a specified callback function when
changed,\n     * allowing the callback to veto the modification.\n     * @param initialValue the initial value of the
property.\n     * @param onChange the callback which is called before a change to the property value is attempted.\n
     * The value of the property hasn't been changed yet, when this callback is invoked.\n     * If the callback returns
`true` the value of the property is being set to the new value,\n     * and if the callback returns `false` the new value
is discarded and the property remains its old value.\n     */\n     * @sample
samples.properties.Delegates.vetoableDelegate\n     * @sample
samples.properties.Delegates.throwVetoableDelegate\n     */\n     public inline fun <T> vetoable(initialValue: T,
crossinline onChange: (property: KProperty<*>, oldValue: T, newValue: T) -> Boolean):\n
ReadWriteProperty<Any?, T> =\n         object : ObservableProperty<T>(initialValue) {\n             override fun
beforeChange(property: KProperty<*>, oldValue: T, newValue: T): Boolean = onChange(property, oldValue,
newValue)\n         }\n\n     private class NotNullVar<T : Any>() : ReadWriteProperty<Any?, T> {\n         private var
value: T? = null\n         public override fun getValue(thisRef: Any?, property: KProperty<*>): T {\n             return value
?: throw IllegalStateException("Property ${property.name} should be initialized
before get.")\n         }\n         public override fun setValue(thisRef: Any?, property: KProperty<*>, value: T) {\n
this.value = value\n         }\n     }\n\n"/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin.properties\n\nimport kotlin.reflect.KProperty\n\n/**\n * Base
interface that can be used for implementing property delegates of read-only properties.\n */\n * This is provided only
for convenience; you don't have to extend this interface\n * as long as your property delegate has methods with the
same signatures.\n */\n * @param T the type of object which owns the delegated property.\n * @param V the type of
the property value.\n */\n\npublic fun interface ReadOnlyProperty<in T, out V> {\n    /**\n     * Returns the value of
the property for the given object.\n     * @param thisRef the object for which the value
is requested.\n     * @param property the metadata for the property.\n     * @return the property value.\n     */\n     public operator fun getValue(thisRef: T, property: KProperty<*>): V\n}\n\n/**\n * Base interface that can be used
for implementing property delegates of read-write properties.\n */\n * This is provided only for convenience; you
don't have to extend this interface\n * as long as your property delegate has methods with the same signatures.\n */\n

```

```

* @param T the type of object which owns the delegated property.\n * @param V the type of the property value.\n
*\npublic interface ReadWriteProperty<in T, V> : ReadOnlyProperty<T, V> {\n /**\n * Returns the value of
the property for the given object.\n * @param thisRef the object for which the value is requested.\n * @param
property the metadata for the property.\n * @return the property value.\n */\n public override operator fun
getValue(thisRef: T, property: KProperty<*>): V\n\n /**\n * Sets
the value of the property for the given object.\n * @param thisRef the object for which the value is requested.\n
* @param property the metadata for the property.\n * @param value the value to set.\n */\n public operator
fun setValue(thisRef: T, property: KProperty<*>, value: V)\n}\n\n/**\n * Base interface that can be used for
implementing property delegate providers.\n *\n * This is provided only for convenience; you don't have to extend
this interface\n * as long as your delegate provider has a method with the same signature.\n *\n * @param T the type
of object which owns the delegated property.\n * @param D the type of property delegates this provider provides.\n
*\n *@SinceKotlin("1.4")\npublic fun interface PropertyDelegateProvider<in T, out D> {\n /**\n * Returns the
delegate of the property for the given object.\n *\n * This function can be used to extend the logic of creating
the object (e.g. perform validation checks)\n * to which the
property implementation is delegated.\n *\n * @param thisRef the object for which property delegate is
requested.\n * @param property the metadata for the property.\n * @return the property delegate.\n */\n
public operator fun provideDelegate(thisRef: T, property: KProperty<*>): D\n}\n\n"/*\n * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.properties\n\nimport
kotlin.reflect.KProperty\n\n/**\n * Implements the core logic of a property delegate for a read/write property that
calls callback functions when changed.\n * @param initialValue the initial value of the property.\n */\npublic
abstract class ObservableProperty<V>(initialValue: V) : ReadWriteProperty<Any?, V> {\n private var value =
initialValue\n\n /**\n * The callback which is called before a change to the property value
is attempted.\n * The value of the property hasn't been changed yet, when this callback is invoked.\n * If the
callback returns `true` the value of the property is being set to the new value,\n * and if the callback returns
`false` the new value is discarded and the property remains its old value.\n */\n protected open fun
beforeChange(property: KProperty<*>, oldValue: V, newValue: V): Boolean = true\n\n /**\n * The callback
which is called after the change of the property is made. The value of the property\n * has already been changed
when this callback is invoked.\n */\n protected open fun afterChange(property: KProperty<*>, oldValue: V,
newValue: V): Unit { }\n\n public override fun getValue(thisRef: Any?, property: KProperty<*>): V {\n
return value\n }\n\n public override fun setValue(thisRef: Any?, property: KProperty<*>, value: V) {\n val
oldValue = this.value\n if (!beforeChange(property, oldValue, value)) {\n
return\n }\n this.value = value\n afterChange(property, oldValue, value)\n }\n}\n\n"/*\n *
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governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\n\n@file:Suppress("PackageDirectoryMismatch")\npackage kotlin\n\nimport kotlin.reflect.*\n\n/**\n * An
extension operator that allows delegating a read-only property of type [V]\n * to a property reference to a property
of type [V] or its subtype.\n *\n * @receiver A property reference to a read-only or mutable property of type [V] or
its subtype.\n * The reference is without a receiver, i.e. it either references a top-level property or\n * has the
receiver bound to it.\n *\n * Example:\n *\n * ```\n * class Login(val username: String)\n * val defaultLogin =
Login("Admin")\n * val defaultUsername by defaultLogin::username\n * // equivalent to\n * val defaultUserName
get() = defaultLogin.username\n * ```\n */\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline
operator fun <V> KProperty0<V>.getValue(thisRef: Any?, property: KProperty<*>): V {\n return
get()\n}\n\n/**\n * An extension operator that allows delegating a mutable property of type [V]\n * to a property
reference to a mutable property of the same type [V].\n *\n * @receiver A property reference to a mutable property
of type [V].\n * The reference is without a receiver, i.e. it either references a top-level property or\n * has the
receiver bound to it.\n *\n * Example:\n *\n * ```\n * class Login(val username: String, var
incorrectAttemptCounter: Int = 0)\n * val defaultLogin = Login("Admin")\n * var defaultLoginAttempts by

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defaultLogin::incorrectAttemptCounter\n * // equivalent to\n * var defaultLoginAttempts: Int\n *   get() =
defaultLogin.incorrectAttemptCounter\n *   set(value) { defaultLogin.incorrectAttemptCounter = value }\n *   ```\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic
inline operator fun <V> KMutableProperty0<V>.setValue(thisRef: Any?, property: KProperty<*>, value: V) {\n
set(value)\n}\n\n/**\n * An extension operator that allows delegating a read-only member or extension property of
type [V]\n * to a property reference to a member or extension property of type [V] or its subtype.\n * @receiver
A property reference to a read-only or mutable property of type [V] or its subtype.\n * The reference has an unbound
receiver of type [T].\n * Example:\n *   ```\n * class Login(val username: String)\n * val Login.user by
Login::username\n * // equivalent to\n * val Login.user get() = this.username\n *   ```\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline operator fun <T, V> KProperty1<T,
V>.getValue(thisRef: T, property: KProperty<*>): V {\n   return get(thisRef)\n}\n\n/**\n * An extension operator
that allows delegating a mutable member or extension property of type [V]\n *
to a property reference to a member or extension mutable property of the same type [V].\n * @receiver A
property reference to a read-only or mutable property of type [V] or its subtype.\n * The reference has an unbound
receiver of type [T].\n * Example:\n *   ```\n * class Login(val username: String, var
incorrectAttemptCounter: Int)\n * var Login.attempts by Login::incorrectAttemptCounter\n * // equivalent to\n * var
Login.attempts: Int\n *   get() = this.incorrectAttemptCounter\n *   set(value) { this.incorrectAttemptCounter =
value }\n *   ```\n
*\n@SinceKotlin("1.4")\n@kotlin.internal.InlineOnly\npublic inline operator fun <T, V>
KMutableProperty1<T, V>.setValue(thisRef: T, property: KProperty<*>, value: V) {\n   set(thisRef,
value)\n}\n", "/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of
this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\n@npackage kotlin.random\n\nimport
kotlin.math.nextDown\n\n/**\n * An abstract class that is implemented by random number generator algorithms.\n
*\n * The companion object [Random.Default] is the default instance of [Random].\n * To get a seeded instance
of random generator use [Random] function.\n * @sample samples.random.Randoms.defaultRandom\n
*\n@SinceKotlin("1.3")\n\npublic abstract class Random {\n\n   /**\n    * Gets the next random [bitCount] number
of bits.\n    * Generates an `Int` whose lower [bitCount] bits are filled with random values and the remaining
upper bits are zero.\n    * @param bitCount number of bits to generate, must be in range 0..32, otherwise the
behavior is unspecified.\n    * @sample samples.random.Randoms.nextBits\n    */\n   public abstract fun
nextBits(bitCount: Int): Int\n\n   /**\n    * Gets the next random `Int` from the random number generator.\n    *
Generates an `Int` random value uniformly distributed between `Int.MIN_VALUE`
and `Int.MAX_VALUE` (inclusive).\n    * @sample samples.random.Randoms.nextInt\n    */\n   public
open fun nextInt(): Int = nextBits(32)\n\n   /**\n    * Gets the next random non-negative `Int` from the random
number generator less than the specified [until] bound.\n    * Generates an `Int` random value uniformly
distributed between `0` (inclusive) and the specified [until] bound (exclusive).\n    * @param until must be
positive.\n    * @throws IllegalArgumentException if [until] is negative or zero.\n    * @sample
samples.random.Randoms.nextIntFromUntil\n    */\n   public open fun nextInt(until: Int): Int = nextInt(0, until)\n\n
/**\n    * Gets the next random `Int` from the random number generator in the specified range.\n    *
Generates an `Int` random value uniformly distributed between the specified [from] (inclusive) and [until]
(exclusive) bounds.\n    * @throws IllegalArgumentException if [from]
is greater than or equal to [until].\n    * @sample samples.random.Randoms.nextIntFromUntil\n    */\n
public open fun nextInt(from: Int, until: Int): Int {\n   checkRangeBounds(from, until)\n   val n = until -
from\n   if (n > 0 || n == Int.MIN_VALUE) {\n       val rnd = if (n and -n == n) {\n           val bitCount =
fastLog2(n)\n           nextBits(bitCount)\n       } else {\n           var v: Int\n           do {\n               val
bits = nextInt().ushr(1)\n               v = bits % n\n           } while (bits - v + (n - 1) < 0)\n           v\n       }\n
return from + rnd\n   } else {\n       while (true) {\n           val rnd = nextInt()\n           if (rnd in
from until until) return rnd\n       }\n   }\n}\n\n   /**\n    * Gets the next random `Long` from the random
number generator.\n    * Generates a `Long` random value uniformly distributed

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between `Long.MIN_VALUE` and `Long.MAX_VALUE` (inclusive).\n * \n * @sample
samples.random.Randoms.nextLong\n * \n public open fun nextLong(): Long = nextInt().toLong().shl(32) +
nextInt()\n\n /** \n * Gets the next random non-negative `Long` from the random number generator less than the
specified [until] bound.\n * \n * Generates a `Long` random value uniformly distributed between `0` (inclusive)
and the specified [until] bound (exclusive).\n * \n * @param until must be positive.\n * \n * @throws
IllegalArgumentException if [until] is negative or zero.\n * \n * @sample
samples.random.Randoms.nextLongFromUntil\n * \n public open fun nextLong(until: Long): Long =
nextLong(0, until)\n\n /** \n * Gets the next random `Long` from the random number generator in the specified
range.\n * \n * Generates a `Long` random value uniformly distributed between the specified [from] (inclusive)
and [until] (exclusive) bounds.\n
* \n * @throws IllegalArgumentException if [from] is greater than or equal to [until].\n * \n * @sample
samples.random.Randoms.nextLongFromUntil\n * \n public open fun nextLong(from: Long, until: Long): Long
{\n    checkRangeBounds(from, until)\n    val n = until - from\n    if (n > 0) {\n        val rnd: Long\n
if (n and -n == n) {\n            val nLow = n.toInt()\n            val nHigh = (n ushr 32).toInt()\n            rnd =
when {\n                nLow != 0 -> {\n                    val bitCount = fastLog2(nLow)\n                    //
toUInt().toLong()\n                    nextBits(bitCount).toLong() and 0xFFFF_FFFF\n                }\n
nHigh == 1 -> \n                    // toUInt().toLong()\n                    nextInt().toLong() and 0xFFFF_FFFF\n
else -> {\n                    val bitCount = fastLog2(nHigh)\n                    nextBits(bitCount).toLong().shl(32)
+ (nextInt().toLong() and 0xFFFF_FFFF)\n                }\n            } else {\n                var v: Long\n
do {\n                    val bits = nextLong().ushr(1)\n                    v = bits % n\n                } while (bits - v + (n - 1)
< 0)\n                rnd = v\n            }\n            return from + rnd\n        } else {\n            while (true) {\n                val
rnd = nextLong()\n                if (rnd in from until until) return rnd\n            }\n        }\n    }\n\n /** \n * Gets the
next random [Boolean] value.\n * \n * @sample samples.random.Randoms.nextBoolean\n * \n public open
fun nextBoolean(): Boolean = nextBits(1) != 0\n\n /** \n * Gets the next random [Double] value uniformly
distributed between 0 (inclusive) and 1 (exclusive).\n * \n * @sample samples.random.Randoms.nextDouble\n
* \n public open fun nextDouble(): Double = doubleFromParts(nextBits(26), nextBits(27))\n\n
/** \n * Gets the next random non-negative `Double` from the random number generator less than the specified
[until] bound.\n * \n * Generates a `Double` random value uniformly distributed between 0 (inclusive) and
[until] (exclusive).\n * \n * @throws IllegalArgumentException if [until] is negative or zero.\n * \n *
@sample samples.random.Randoms.nextDoubleFromUntil\n * \n public open fun nextDouble(until: Double):
Double = nextDouble(0.0, until)\n\n /** \n * Gets the next random `Double` from the random number generator
in the specified range.\n * \n * Generates a `Double` random value uniformly distributed between the specified
[from] (inclusive) and [until] (exclusive) bounds.\n * \n * [from] and [until] must be finite otherwise the
behavior is unspecified.\n * \n * @throws IllegalArgumentException if [from] is greater than or equal to
[until].\n * \n * @sample samples.random.Randoms.nextDoubleFromUntil\n
* \n public open fun nextDouble(from: Double, until: Double): Double {\n    checkRangeBounds(from,
until)\n    val size = until - from\n    val r = if (size.isInfinite() && from.isFinite() && until.isFinite()) {\n
val r1 = nextDouble() * (until / 2 - from / 2)\n        from + r1 + r1\n    } else {\n        from + nextDouble() *
size\n    }\n    return if (r >= until) until.nextDown() else r\n}\n\n /** \n * Gets the next random [Float]
value uniformly distributed between 0 (inclusive) and 1 (exclusive).\n * \n * @sample
samples.random.Randoms.nextFloat\n * \n public open fun nextFloat(): Float = nextBits(24) / (1 shl
24).toFloat()\n\n /** \n * Fills a subrange of the specified byte [array] starting from [fromIndex] inclusive and
ending [toIndex] exclusive\n * with random bytes.\n * \n * @return [array] with the subrange filled with
random bytes.\n * \n * @sample samples.random.Randoms.nextBytes\n
* \n public open fun nextBytes(array: ByteArray, fromIndex: Int = 0, toIndex: Int = array.size): ByteArray {\n
require(fromIndex in 0..array.size && toIndex in 0..array.size) { "\nfromIndex ($fromIndex) or toIndex ($toIndex)
are out of range: 0..${array.size}." }\n    require(fromIndex <= toIndex) { "\nfromIndex ($fromIndex) must be not
greater than toIndex ($toIndex)." }\n    val steps = (toIndex - fromIndex) / 4\n    var position = fromIndex\n

```

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repeat(steps) {
    val v = nextInt()
    array[position] = v.toByte()
    array[position + 1] =
v.ushr(8).toByte()
    array[position + 2] = v.ushr(16).toByte()
    array[position + 3] =
v.ushr(24).toByte()
    position += 4
}
val remainder = toIndex - position
val vr =
nextBits(remainder * 8)
for (i in 0 until remainder) {
    array[position + i] = vr.ushr(i * 8).toByte()
}
return
array
}
/**
 * Fills the specified byte [array] with random bytes and returns it.
 * @return
 [array] filled with random bytes.
 * @sample samples.random.Randoms.nextBytes
 */
public open
fun nextBytes(array: ByteArray): ByteArray = nextBytes(array, 0, array.size)
/**
 * Creates a byte array of
 the specified [size], filled with random bytes.
 * @sample samples.random.Randoms.nextBytes
 */
public open fun nextBytes(size: Int): ByteArray = nextBytes(ByteArray(size))
/**
 * The default random
 number generator.
 * On JVM this generator is thread-safe, its methods can be invoked from multiple
 threads.
 * @sample samples.random.Randoms.defaultRandom
 */
companion object Default :
Random(), Serializable {
    private val defaultRandom: Random = defaultPlatformRandom()
    private
object Serialized : Serializable {
        private const
val serialVersionUID = 0L
        private fun readResolve(): Any = Random()
    }
    private fun
writeReplace(): Any = Serialized
    override fun nextBits(bitCount: Int): Int =
defaultRandom.nextBits(bitCount)
    override fun nextInt(): Int = defaultRandom.nextInt()
    override fun
nextInt(until: Int): Int = defaultRandom.nextInt(until)
    override fun nextInt(from: Int, until: Int): Int =
defaultRandom.nextInt(from, until)
    override fun nextLong(): Long = defaultRandom.nextLong()
    override fun nextLong(until: Long): Long = defaultRandom.nextLong(until)
    override fun nextLong(from:
Long, until: Long): Long = defaultRandom.nextLong(from, until)
    override fun nextBoolean(): Boolean =
defaultRandom.nextBoolean()
    override fun nextDouble(): Double = defaultRandom.nextDouble()
    override fun
nextDouble(until: Double): Double = defaultRandom.nextDouble(until)
    override fun
nextDouble(from:
Double, until: Double): Double = defaultRandom.nextDouble(from, until)
    override fun nextFloat(): Float =
defaultRandom.nextFloat()
    override fun nextBytes(array: ByteArray): ByteArray =
defaultRandom.nextBytes(array)
    override fun nextBytes(size: Int): ByteArray =
defaultRandom.nextBytes(size)
    override fun nextBytes(array: ByteArray, fromIndex: Int, toIndex: Int):
ByteArray =
defaultRandom.nextBytes(array, fromIndex, toIndex)
}
}
/**
 * Returns a repeatable
 random number generator seeded with the given [seed] `Int` value.
 * Two generators with the same seed
 produce the same sequence of values within the same version of Kotlin runtime.
 * Note: Future versions of
 Kotlin may change the algorithm of this seeded number generator so that it will return
 a sequence of values
 different from the current one for a given seed.
 * On JVM the returned generator is NOT thread-safe. Do not
 invoke it from multiple threads
 without proper synchronization.
 * @sample samples.random.Randoms.seededRandom
 */
@SinceKotlin("1.3")
public fun Random(seed: Int): Random = XorWowRandom(seed, seed.shr(31))
/**
 * Returns a repeatable random number generator seeded with the given [seed] `Long` value.
 * Two generators
 with the same seed produce the same sequence of values within the same version of Kotlin runtime.
 * Note: Future versions of Kotlin may change the algorithm of this seeded number generator so that it will return
 a
 sequence of values different from the current one for a given seed.
 * On JVM the returned generator is NOT
 thread-safe. Do not invoke it from multiple threads without proper synchronization.
 * @sample
 samples.random.Randoms.seededRandom
 */
@SinceKotlin("1.3")
public fun Random(seed: Long): Random =
XorWowRandom(seed.toInt(), seed.shr(32).toInt())
/**
 * Gets the next random `Int` from the random
 number generator in the specified [range].
 * Generates an `Int` random value uniformly distributed in the specified [range]:
 * from `range.start` inclusive
 to `range.endInclusive` inclusive.
 * @throws IllegalArgumentException if [range] is empty.
 */
@SinceKotlin("1.3")
public fun Random.nextInt(range: IntRange): Int = when {
    range.isEmpty() -> throw
IllegalArgumentException("Cannot get random in empty range: $range")
    range.last < Int.MAX_VALUE ->

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nextInt(range.first, range.last + 1)\n    range.first > Int.MIN_VALUE -> nextInt(range.first - 1, range.last) + 1\n    else -> nextInt()\n}\n\n/**\n * Gets the next random `Long` from the random number generator in the specified\n [range].\n *\n * Generates a `Long` random value uniformly distributed in the specified [range]:\n * from\n `range.start` inclusive to `range.endInclusive` inclusive.\n *\n * @throws IllegalArgumentException if [range] is\n empty.\n *\n @SinceKotlin("1.3")\n\npublic fun Random.nextLong(range: LongRange): Long = when {\n    range.isEmpty()\n        -> throw IllegalArgumentException("Cannot get random in empty range: $range")\n    range.last <\n        Long.MAX_VALUE -> nextLong(range.first, range.last + 1)\n    range.first > Long.MIN_VALUE ->\n        nextLong(range.first - 1, range.last) + 1\n    else -> nextLong()\n}\n\n\ninternal expect fun\n    defaultPlatformRandom(): Random\ninternal expect fun doubleFromParts(hi26: Int, low27: Int): Double\ninternal\n    fun fastLog2(value: Int): Int = 31 - value.countLeadingZeroBits()\n\n\n/**\n * Takes upper [bitCount] bits (0..32) from\n this number. *\n\ninternal fun Int.takeUpperBits(bitCount: Int): Int =\n    this.ushr(32 - bitCount) and (-\n    bitCount).shr(31)\n\n\ninternal fun checkRangeBounds(from: Int, until: Int) = require(until > from) {\n    boundsErrorMessage(from, until) }\n\n\ninternal fun checkRangeBounds(from: Long, until: Long) = require(until >\n    from) {\n    boundsErrorMessage(from, until) }\n\n\ninternal fun checkRangeBounds(from: Double, until: Double) =\n    require(until > from) {\n    boundsErrorMessage(from, until) }\n\n\ninternal\n    fun boundsErrorMessage(from: Any, until: Any) = "Random range is empty: [$from, $until].\n", "/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is\n governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n *\n @package\n    kotlin.random\n\n\n/**\n * Gets the next random [UInt] from the random number generator.\n *\n * Generates a\n [UInt] random value uniformly distributed between [UInt.MIN_VALUE] and [UInt.MAX_VALUE] (inclusive).\n *\n @SinceKotlin("1.5")\n\n @WasExperimental(ExperimentalUnsignedTypes::class)\n\npublic fun\n    Random.nextUInt(): UInt = nextInt().toUInt()\n\n\n/**\n * Gets the next random [UInt] from the random number\n generator less than the specified [until] bound.\n *\n * Generates a [UInt] random value uniformly distributed\n between `0` (inclusive) and the specified [until] bound (exclusive).\n *\n * @throws IllegalArgumentException if\n [until] is zero.\n *\n @SinceKotlin("1.5")\n\n @WasExperimental(ExperimentalUnsignedTypes::class)\n\npublic\n    fun Random.nextUInt(until: UInt): UInt = nextUInt(0u, until)\n\n\n/**\n * Gets the next random [UInt] from the\n random number generator in the specified range.\n *\n * Generates a [UInt] random value uniformly distributed\n between the specified [from] (inclusive) and [until] (exclusive) bounds.\n *\n * @throws IllegalArgumentException\n if [from] is greater than or equal to [until].\n\n *\n @SinceKotlin("1.5")\n\n @WasExperimental(ExperimentalUnsignedTypes::class)\n\npublic fun\n    Random.nextUInt(from: UInt, until: UInt): UInt {\n    checkUIntRangeBounds(from, until)\n\n    val signedFrom =\n        from.toInt() xor Int.MIN_VALUE\n    val signedUntil =\n        until.toInt() xor Int.MIN_VALUE\n    val signedResult =\n        nextInt(signedFrom, signedUntil) xor Int.MIN_VALUE\n    return signedResult.toUInt()\n}\n\n\n/**\n * Gets the next\n random [UInt] from the random number generator in the specified [range].\n *\n * Generates a [UInt] random value\n uniformly distributed\n in the specified [range]:\n * from `range.start` inclusive to `range.endInclusive` inclusive.\n *\n * @throws\n IllegalArgumentException if [range] is empty.\n\n *\n @SinceKotlin("1.5")\n\n @WasExperimental(ExperimentalUnsignedTypes::class)\n\npublic fun\n    Random.nextUInt(range: UIntRange): UInt = when {\n    range.isEmpty() -> throw\n        IllegalArgumentException("Cannot get random in empty range: $range")\n    range.last < UInt.MAX_VALUE ->\n        nextUInt(range.first, range.last + 1u)\n    range.first > UInt.MIN_VALUE -> nextUInt(range.first - 1u, range.last) +\n        1u\n    else -> nextUInt()\n}\n\n\n/**\n * Gets the next random [ULong] from the random number generator.\n *\n * Generates a [ULong] random value uniformly distributed between [ULong.MIN_VALUE] and\n [ULong.MAX_VALUE] (inclusive).\n\n *\n @SinceKotlin("1.5")\n\n @WasExperimental(ExperimentalUnsignedTypes::class)\n\npublic fun\n    Random.nextULong(): ULong = nextLong().toULong()\n\n\n/**\n * Gets the next random [ULong] from the random\n number generator

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less than the specified [until] bound.\n *\n * Generates a [ULong] random value uniformly distributed between `0`
(inclusive) and the specified [until] bound (exclusive).\n *\n * @throws IllegalArgumentException if [until] is
zero.\n *\n @SinceKotlin("1.5")\n @WasExperimental(ExperimentalUnsignedTypes::class)\n public fun
Random.nextULong(until: ULong): ULong = nextULong(0uL, until)\n\n /**\n * Gets the next random [ULong] from
the random number generator in the specified range.\n *\n * Generates a [ULong] random value uniformly
distributed between the specified [from] (inclusive) and [until] (exclusive) bounds.\n *\n * @throws
IllegalArgumentException if [from] is greater than or equal to [until].\n\n
*\n @SinceKotlin("1.5")\n @WasExperimental(ExperimentalUnsignedTypes::class)\n public fun
Random.nextULong(from: ULong, until: ULong): ULong {\n    checkULongRangeBounds(from, until)\n\n    val
signedFrom = from.toLong() xor Long.MIN_VALUE\n    val signedUntil = until.toLong() xor
Long.MIN_VALUE\n\n    val signedResult = nextLong(signedFrom, signedUntil) xor Long.MIN_VALUE\n    return
signedResult.toULong()\n}\n\n /**\n * Gets the next random [ULong] from the random number generator in the
specified [range].\n *\n * Generates a [ULong] random value uniformly distributed in the specified [range]:\n * from
`range.start` inclusive to `range.endInclusive` inclusive.\n *\n * @throws IllegalArgumentException if [range] is
empty.\n *\n @SinceKotlin("1.5")\n @WasExperimental(ExperimentalUnsignedTypes::class)\n public fun
Random.nextULong(range: ULongRange): ULong = when {\n    range.isEmpty() -> throw
IllegalArgumentException("Cannot get random in empty range: $range")\n    range.last < ULong.MAX_VALUE -
> nextULong(range.first, range.last + 1u)\n    range.first > ULong.MIN_VALUE -> nextULong(range.first - 1u,
range.last) + 1u\n    else -> nextULong()\n}\n\n /**\n * Fills the specified unsigned byte [array] with random bytes
and returns it.\n *\n * @return [array] filled with
random bytes.\n *\n @SinceKotlin("1.3")\n @ExperimentalUnsignedTypes\n public fun
Random.nextUBytes(array: UByteArray): UByteArray {\n    nextBytes(array.asByteArray())\n    return
array\n}\n\n /**\n * Creates an unsigned byte array of the specified [size], filled with random bytes.\n\n
*\n @SinceKotlin("1.3")\n @ExperimentalUnsignedTypes\n public fun Random.nextUBytes(size: Int): UByteArray
= nextBytes(size).asUByteArray()\n\n /**\n * Fills a subrange of the specified `UByte` [array] starting from
[fromIndex] inclusive and ending [toIndex] exclusive with random UBytes.\n *\n * @return [array] with the
subrange filled with random bytes.\n *\n @SinceKotlin("1.3")\n @ExperimentalUnsignedTypes\n public fun
Random.nextUBytes(array: UByteArray, fromIndex: Int = 0, toIndex: Int = array.size): UByteArray {\n    nextBytes(array.asByteArray(), fromIndex, toIndex)\n    return array\n}\n\n\n internal fun
checkUIntRangeBounds(from: UInt, until: UInt) = require(until > from) { boundsErrorMessage(from,
until) }\n\n internal fun checkULongRangeBounds(from: ULong, until: ULong) = require(until > from) {
boundsErrorMessage(from, until) }\n\n", "/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n *\n\n package kotlin.random\n\n /**\n * Random number generator, using Marsaglia's
`xorwow` algorithm\n *\n * Cycles after 2^192 - 2^32 repetitions.\n *\n * For more details, see Marsaglia, George
(July 2003). `Xorshift RNGs`. Journal of Statistical Software. 8 (14). doi:10.18637/jss.v008.i14\n *\n * Available
at https://www.jstatsoft.org/v08/i14/paper\n *\n\n internal class XorWowRandom internal constructor(\n    private
var x: Int,\n    private var y: Int,\n    private var z: Int,\n    private var w: Int,\n    private var v: Int,\n    private var
addend: Int\n) : Random(), Serializable {\n\n    internal constructor(seed1: Int, seed2: Int) : \n
this(seed1, seed2, 0, 0, seed1.inv(), (seed1 shl 10) xor (seed2 ushr 4))\n\n    init {\n        require((x or y or z
or w or v) != 0) { "Initial state must have at least one non-zero element." }\n\n        // some trivial seeds can
produce several values with zeroes in upper bits, so we discard first 64\n        repeat(64) { nextInt() }\n\n    }\n\n    override fun nextInt(): Int {\n        // Equivalent to the xorwow algorithm\n        // From Marsaglia, G. 2003. Xorshift
RNGs. J. Statis. Soft. 8, 14, p. 5\n        var t = x\n        t = t xor (t ushr 2)\n        x = y\n        y = z\n        z = w\n        val v0 = v\n        w = v0\n        t = (t xor (t shl 1)) xor v0 xor (v0 shl 4)\n        v = t\n        addend += 362437\n        return t + addend\n    }\n\n    override fun nextBits(bitCount: Int): Int = \n        nextInt().takeUpperBits(bitCount)\n\n    private companion object {\n        private const val serialVersionUID: Long = 0L\n    }\n\n", "/*\n * Copyright

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2010-2023

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JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the\n Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT\n EDIT!\n\npackage kotlin.ranges\n\n/**\n * An iterator over a progression of values of type `Char`.\n * @property\n step the number by which the value is incremented on each step.\n */\n\ninternal class CharProgressionIterator(first:\n Char, last: Char, val step: Int) : CharIterator() {\n    private val finalElement: Int = last.code\n    private var hasNext: Boolean = if (step > 0) first <= last else first >= last\n    private var next: Int = if (hasNext) first.code else\n finalElement\n\n    override fun hasNext(): Boolean = hasNext\n\n    override fun nextChar(): Char {\n        val value\n = next\n        if (value == finalElement) {\n            if (!hasNext) throw kotlin.NoSuchElementException()\n            hasNext = false\n        }\n        else {\n            next\n += step\n        }\n        return value.toChar()\n    }\n}\n\n/**\n * An iterator over a progression of values of type\n `Int`.\n * @property\n step the number by which the value is incremented on each step.\n */\n\ninternal class\n IntProgressionIterator(first: Int, last: Int, val step: Int) : IntIterator() {\n    private val finalElement: Int = last\n    private var hasNext: Boolean = if (step > 0) first <= last else first >= last\n    private var next: Int = if (hasNext) first\n else finalElement\n\n    override fun hasNext(): Boolean = hasNext\n\n    override fun nextInt(): Int {\n        val\n value = next\n        if (value == finalElement) {\n            if (!hasNext) throw kotlin.NoSuchElementException()\n            hasNext = false\n        }\n        else {\n            next += step\n        }\n        return value\n    }\n}\n\n/**\n * An\n iterator over a progression of values of type `Long`.\n * @property\n step the number by which the value is\n incremented on each step.\n */\n\ninternal class\n LongProgressionIterator(first: Long, last: Long, val step: Long) : LongIterator() {\n    private val finalElement:\n Long = last\n    private var hasNext: Boolean = if (step > 0) first <= last else first >= last\n    private var next: Long\n = if (hasNext) first else finalElement\n\n    override fun hasNext(): Boolean = hasNext\n\n    override fun\n nextLong(): Long {\n        val value = next\n        if (value == finalElement) {\n            if (!hasNext) throw\n kotlin.NoSuchElementException()\n            hasNext = false\n        }\n        else {\n            next += step\n        }\n        return value\n    }\n}\n\n/*\n * Copyright 2010-2023 JetBrains s.r.o. and Kotlin Programming Language\n contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the\n license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin.ranges\n\nimport\n kotlin.internal.getProgressionLastElement\n\n/**\n * A progression of values of type\n `Char`.\n */\n\npublic open class CharProgression\n    internal constructor\n    (\n        start: Char,\n        endInclusive: Char,\n        step: Int\n    ) : Iterable<Char> {\n    init {\n        if (step == 0) throw\n kotlin.IllegalArgumentException("Step must be non-zero.")\n        if (step == Int.MIN_VALUE) throw\n kotlin.IllegalArgumentException("Step must be greater than Int.MIN_VALUE to avoid overflow on negation.")\n    }\n\n    /**\n     * The first element in the progression.\n     */\n    public val first: Char = start\n\n    /**\n     * The\n last element in the progression.\n     */\n    public val last: Char = getProgressionLastElement(start.code,\n endInclusive.code, step).toChar()\n\n    /**\n     * The step of the progression.\n     */\n    public val step: Int =\n step\n\n    override fun iterator(): CharIterator = CharProgressionIterator(first, last, step)\n\n    /**\n     * Checks if\n the progression is empty.\n     */\n    * Progression with a positive step\n is empty if its first element is greater than the last element.\n     * Progression with a negative step is empty if its\n first element is less than the last element.\n     */\n    public open fun isEmpty(): Boolean = if (step > 0) first > last\n else first < last\n\n    override fun equals(other: Any?): Boolean =\n other is CharProgression && (isEmpty()\n && other.isEmpty()) ||\n first == other.first && last == other.last && step == other.step\n\n    override fun\n hashCode(): Int =\n if (isEmpty()) -1 else (31 * (31 * first.code + last.code) + step)\n\n    override fun toString():\n String = if (step > 0) "$first..$last step $step" else "$first downTo $last step ${-step}"\n\n    companion object {\n        /**\n         * Creates CharProgression within the specified bounds of a closed range.\n         */\n        * The\n progression starts with the [rangeStart] value and goes toward the [rangeEnd] value not excluding it, with the\n specified [step].\n         * In order\n to go backwards the [step] must be negative.\n         */\n        * [step] must be greater than `Int.MIN_VALUE` and\n not equal to zero.\n         */\n        public fun fromClosedRange(rangeStart: Char, rangeEnd: Char, step: Int):
```



```

ClosedRange<T : Comparable<T>> {\n  /**\n   * The minimum value in the range.\n  */\n  public val start: T\n  /**\n   * The maximum value in the range (inclusive).\n  */\n  public val endInclusive: T\n  /**\n   * Checks whether the specified [value] belongs to the range.\n   * A value belongs to the closed range if it is greater than or equal to the [start] bound and less than or equal to the [endInclusive] bound.\n  */\n  public operator fun contains(value: T): Boolean = value >= start && value <= endInclusive\n  /**\n   * Checks whether the range is empty.\n   * The range is empty if its start value is greater than the end value.\n  */\n  public fun isEmpty(): Boolean = start > endInclusive\n}\n\n/**\n * Represents a range of values (for example, numbers or characters) where the upper bound is not included in the range.\n * See the [Kotlin language documentation](https://kotlinlang.org/docs/reference/ranges.html) for more information.\n */\n@SinceKotlin("1.7")\n@ExperimentalStdlibApi\npublic interface OpenEndRange<T : Comparable<T>> {\n  /**\n   * The minimum value in the range.\n  */\n  public val start: T\n  /**\n   * The maximum value in the range (exclusive).\n  */\n  @throws IllegalStateException can be thrown if the exclusive end bound cannot be represented\n  * with a value of type [T].\n  */\n  public val endExclusive: T\n  /**\n   * Checks whether the specified [value] belongs to the range.\n   * A value belongs to the open-ended range if it is greater than or equal to the [start] bound and strictly less than the [endExclusive] bound.\n  */\n  public operator fun contains(value: T): Boolean = value >= start && value < endExclusive\n  /**\n   * Checks whether the range is empty.\n   * The open-ended range is empty if its start value is greater than or equal to the end value.\n  */\n  public fun isEmpty(): Boolean = start >= endExclusive\n}\n\n/* Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("RangesKt")\n\npackage kotlin.ranges\n\n/**\n * Represents a range of [Comparable] values.\n */\nprivate open class ComparableRange<T : Comparable<T>>(\n  override val start: T,\n  override val endInclusive: T) : ClosedRange<T> {\n  override fun equals(other: Any?): Boolean {\n    return other is ComparableRange<*> && (isEmpty() && other.isEmpty() ||\n      start == other.start && endInclusive == other.endInclusive)\n  }\n  override fun hashCode(): Int {\n    return if (isEmpty()) -1 else 31 * start.hashCode() + endInclusive.hashCode()\n  }\n  override fun toString(): String = "$start..$endInclusive"\n}\n\n/**\n * Creates a range from this [Comparable] value to the specified [that] value.\n * This value needs to be smaller than or equal to [that] value, otherwise the returned range will be empty.\n * @sample samples.ranges.Ranges.rangeFromComparable\n */\npublic operator fun <T : Comparable<T>> T.rangeTo(that: T): ClosedRange<T> = ComparableRange(this, that)\n\n/**\n * Represents a range of [Comparable] values.\n */\n@OptIn(ExperimentalStdlibApi::class)\nprivate open class ComparableOpenEndRange<T : Comparable<T>>(\n  override val start: T,\n  override val endExclusive: T) : OpenEndRange<T> {\n  override fun equals(other: Any?): Boolean {\n    return other is ComparableOpenEndRange<*> && (isEmpty() && other.isEmpty() ||\n      start == other.start && endExclusive == other.endExclusive)\n  }\n  override fun hashCode(): Int {\n    return if (isEmpty()) -1 else 31 * start.hashCode() + endExclusive.hashCode()\n  }\n  override fun toString(): String = "$start.<$endExclusive"\n}\n\n/**\n * Creates an open-ended range from this [Comparable] value to the specified [that] value.\n * This value needs to be smaller than [that] value, otherwise the returned range will be empty.\n * @sample samples.ranges.Ranges.rangeFromComparable\n */\npublic operator fun <T : Comparable<T>> T.rangeUntil(that: T): OpenEndRange<T> = ComparableOpenEndRange(this, that)\n\n/**\n * Represents a range of floating point numbers.\n * Extends [ClosedRange] interface providing custom operation [lessThanOrEquals] for comparing values of range domain type.\n * This interface is implemented by floating point ranges returned by [Float.rangeTo] and [Double.rangeTo] operators to\n * achieve IEEE-754 comparison order instead of total order of floating point numbers.\n */\n@SinceKotlin("1.1")\npublic interface ClosedFloatingPointRange<T : Comparable<T>> :

```

ClosedRange<T> {\n override fun contains(value: T): Boolean = lessThanOrEquals(start, value) && lessThanOrEquals(value, endInclusive)\n override fun isEmpty(): Boolean = !lessThanOrEquals(start, endInclusive)\n\n /\*\*\n \* Compares two values of range domain type and returns true if first is less than or equal to second.\n \*/\n fun lessThanOrEquals(a: T, b: T): Boolean\n}\n\n/\*\*\n \* A closed range of values of type `Double`.\n \*/\n \* Numbers are compared with the ends of this range according to IEEE-754.\n \*/\nprivate class ClosedDoubleRange(\n start:

Double,\n endInclusive: Double)\n) : ClosedFloatingPointRange<Double> {\n private val \_start = start\n private val \_endInclusive = endInclusive\n override val start: Double get() = \_start\n override val endInclusive: Double get() = \_endInclusive\n\n override fun lessThanOrEquals(a: Double, b: Double): Boolean = a <= b\n\n override fun contains(value: Double): Boolean = value >= \_start && value <= \_endInclusive\n override fun isEmpty(): Boolean = !(\_start <= \_endInclusive)\n\n override fun equals(other: Any?): Boolean {\n return other is ClosedDoubleRange && (isEmpty() && other.isEmpty()) ||\n \_start == other.\_start && \_endInclusive == other.\_endInclusive\n }\n\n override fun hashCode(): Int {\n return if (isEmpty()) -1 else 31 \* \_start.hashCode() + \_endInclusive.hashCode()\n }\n\n override fun toString(): String =

\"\$\_start..\$\_endInclusive\"\n}\n\n/\*\*\n \* Creates a range from this [Double] value to the specified [that] value.\n \*/\n \* Numbers are compared with the ends of this range according to IEEE-754.\n \*/\n \* @sample samples.ranges.Ranges.rangeFromDouble\n \*/\n@SinceKotlin(\"1.1\")\npublic operator fun Double.rangeTo(that: Double): ClosedFloatingPointRange<Double> = ClosedDoubleRange(this, that)\n\n/\*\*\n \* An open-ended range of values of type `Double`.\n \*/\n \* Numbers are compared with the ends of this range according to IEEE-754.\n \*/\n@OptIn(ExperimentalStdlibApi::class)\nprivate class OpenEndDoubleRange(\n start: Double,\n endExclusive: Double)\n) : OpenEndRange<Double> {\n private val \_start = start\n private val \_endExclusive = endExclusive\n\n override val start: Double get() = \_start\n override val endExclusive: Double get() = \_endExclusive\n\n private fun lessThanOrEquals(a: Double, b: Double): Boolean = a <= b\n\n override fun contains(value: Double): Boolean = value >= \_start && value < \_endExclusive\n\n override fun isEmpty(): Boolean = !(\_start < \_endExclusive)\n\n\n override fun equals(other: Any?): Boolean {\n return other is OpenEndDoubleRange && (isEmpty() && other.isEmpty()) ||\n \_start == other.\_start && \_endExclusive == other.\_endExclusive\n }\n\n\n override fun hashCode(): Int {\n return if (isEmpty()) -1 else 31 \* \_start.hashCode() + \_endExclusive.hashCode()\n }\n\n\n override fun toString(): String = \"\$\_start.<\$\_endExclusive\"\n}\n\n/\*\*\n \* Creates an open-ended range from this [Double] value to the specified [that] value.\n \*/\n \* Numbers are compared with the ends of this range according to IEEE-754.\n \*/\n@SinceKotlin(\"1.7\")\n@ExperimentalStdlibApi\npublic operator fun

Double.rangeUntil(that: Double): OpenEndRange<Double> = OpenEndDoubleRange(this, that)\n\n/\*\*\n \* A closed range of values of type `Float`.\n \*/\n \* Numbers are compared with the ends of this range according to IEEE-754.\n \*/\nprivate class ClosedFloatRange(\n start: Float,\n endInclusive: Float)\n) :

ClosedFloatingPointRange<Float>\n\n {\n private val \_start = start\n private val \_endInclusive = endInclusive\n\n override val start: Float get() = \_start\n\n override val endInclusive: Float get() = \_endInclusive\n\n\n override fun lessThanOrEquals(a: Float, b: Float): Boolean = a <= b\n\n\n override fun contains(value: Float): Boolean = value >= \_start && value <= \_endInclusive\n\n\n override fun isEmpty(): Boolean = !(\_start <= \_endInclusive)\n\n\n override fun equals(other: Any?): Boolean {\n return other is ClosedFloatRange && (isEmpty() && other.isEmpty()) ||\n \_start == other.\_start && \_endInclusive == other.\_endInclusive\n }\n\n\n override fun hashCode(): Int {\n return if (isEmpty()) -1 else 31 \* \_start.hashCode() + \_endInclusive.hashCode()\n }\n\n\n override fun toString(): String = \"\$\_start..\$\_endInclusive\"\n}\n\n\n/\*\*\n \* Creates a range from this [Float] value to the specified [that] value.\n \*/\n \* Numbers are compared with the ends of this range according

to IEEE-754.\n \*/\n \* @sample samples.ranges.Ranges.rangeFromFloat\n \*/\n@SinceKotlin(\"1.1\")\npublic operator fun Float.rangeTo(that: Float): ClosedFloatingPointRange<Float> = ClosedFloatRange(this, that)\n\n/\*\*\n \* An open-ended range of values of type `Float`.\n \*/\n \* Numbers are compared with the ends of this range according to IEEE-754.\n \*/\n@OptIn(ExperimentalStdlibApi::class)\nprivate class OpenEndFloatRange(\n start: Float,\n





```

*\n * @param value the character to append.\n * fun append(value: Char): Appendable\n\n /**\n * Appends the specified character sequence [value] to this Appendable and returns this instance.\n * @param value the character sequence to append. If [value] is `null`, then the four characters `"\n\n\n\n"` are appended to this Appendable.\n * fun append(value: CharSequence?): Appendable\n\n /**\n * Appends a subsequence of the specified character sequence [value] to this Appendable and returns this instance.\n * @param value the character sequence from which a subsequence is appended. If [value] is `null`,\n * then characters are appended as if [value] contained the four characters `"\n\n\n\n"`.\n * @param startIndex the beginning (inclusive) of the subsequence to append.\n * @param endIndex the end (exclusive) of the subsequence to append.\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n * fun append(value: CharSequence?, startIndex: Int, endIndex: Int): Appendable\n\n /**\n * Appends a subsequence of the specified character sequence [value] to this Appendable and returns this instance.\n * @param value the character sequence from which a subsequence is appended.\n * @param startIndex the beginning (inclusive) of the subsequence to append.\n * @param endIndex the end (exclusive) of the subsequence to append.\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n * fun appendRange(value: CharSequence, startIndex: Int, endIndex: Int): T {\n\n @Suppress("UNCHECKED_CAST")\n return append(value, startIndex, endIndex) as T\n}\n\n /**\n * Appends all arguments to the given [Appendable].\n * fun append(vararg value: CharSequence?): T {\n for (item in value)\n append(item)\n return this\n}\n\n /**\n * Appends a line feed character (`\n`) to this Appendable. *\n * fun Appendable.appendLine(): Appendable = append("\n")\n\n /**\n * Appends value to the given Appendable and a line feed character (`\n`) after it. *\n * fun Appendable.appendLine(value: CharSequence?): Appendable = append(value).appendLine()\n\n /**\n * Appends value to the given Appendable and a line feed character (`\n`) after it.\n * fun Appendable.appendLine(value: Char): Appendable = append(value).appendLine()\n\n internal fun <T> Appendable.appendElement(element: T, transform: ((T) -> CharSequence)?) {\n when {\n transform != null -> append(transform(element))\n element is CharSequence? -> append(element)\n element is Char -> append(element)\n else -> append(element.toString())\n }\n}\n\n /**\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n\n\n @file:kotlin.jvm.JvmMultifileClass\n @file:kotlin.jvm.JvmName("StringsKt")\n\n package kotlin.text\n\n /**\n * Trims leading whitespace characters followed by [marginPrefix] from every line of a source string and removes\n * the first and the last lines if they are blank (notice difference blank vs empty).\n * *\n * Doesn't affect a line if it doesn't contain [marginPrefix] except the first and the last blank lines.\n * *\n * Doesn't preserve the original line endings.\n * *\n * @param marginPrefix non-blank string, which is used as a margin delimiter. Default is `|` (pipe character).\n * @sample samples.text.Strings.trimMargin\n * @see trimIndent\n * @see kotlin.text.isWhitespace\n * fun String.trimMargin(marginPrefix: String = "|"): String =\n replaceIndentByMargin("|", marginPrefix)\n\n /**\n * Detects indent by [marginPrefix] as it does [trimMargin] and replace it with [newIndent].\n * *\n * @param marginPrefix non-blank string, which is used as a margin delimiter. Default is `|` (pipe character).\n * fun String.replaceIndentByMargin(newIndent: String = "\n", marginPrefix: String = "|"): String {\n require(marginPrefix.isNotBlank()) { `marginPrefix` must be non-

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\u2014\n /** The character &#x2018; *\n public const val leftSingleQuote: Char = "\u2018\n /** The
character &#x2019; *\n public const val rightSingleQuote: Char = "\u2019\n /** The character &#x201A; *\n
public const val lowSingleQuote: Char = "\u201A\n /** The character &#x201C; *\n public const val
leftDoubleQuote: Char = "\u201C\n /** The character &#x201D; *\n public const val rightDoubleQuote: Char
= "\u201D\n /** The character &#x201E; *\n public const val lowDoubleQuote: Char = "\u201E\n /** The
character &#x2020; *\n public const val dagger: Char = "\u2020\n /** The character &#x2021; *\n public
const val doubleDagger: Char = "\u2021\n /** The character &#x2022; *\n public
const val bullet: Char = "\u2022\n /** The character &#x2026; *\n public const val ellipsis: Char = "\u2026\n
/** The character &#x2032; *\n public const val prime: Char = "\u2032\n /** The character &#x2033; *\n
public const val doublePrime: Char = "\u2033\n /** The character &#x20AC; *\n public const val euro: Char =
"\u20AC\n /** The character &#x2122; *\n public const val tm: Char = "\u2122\n /** The character
&#x2248; *\n public const val almostEqual: Char = "\u2248\n /** The character &#x2260; *\n public const
val notEqual: Char = "\u2260\n /** The character &#x2264; *\n public const val lessOrEqual: Char =
"\u2264\n /** The character &#x2265; *\n public const val greaterOrEqual: Char = "\u2265\n\n /** The
character &#xAB; *\n @Deprecated("This constant has a typo in the name. Use leftGuillemet instead.",
ReplaceWith("Typography.leftGuillemet"))\n @DeprecatedSinceKotlin("1.6")\n
public const val leftGuillemete: Char = "\u00AB\n\n /** The character &#xBB; *\n @Deprecated("This
constant has a typo in the name. Use rightGuillemet instead.", ReplaceWith("Typography.rightGuillemet"))\n
@DeprecatedSinceKotlin("1.6")\n public const val rightGuillemete: Char = "\u00BB\n", /*\n * Copyright
2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n /**\n * Represents a collection of captured groups in a single match of a regular expression.\n * This collection has size
of `groupCount + 1` where `groupCount` is the count of groups in the regular expression.\n * Groups are indexed
from 1 to `groupCount` and group with the index 0 corresponds to the entire match.\n * An element of the
collection at the particular index can be `null` if the corresponding group in the regular
expression is optional and\n * there was no match captured by that group.\n */\n\n public interface
MatchGroupCollection : Collection<MatchGroup?> {\n\n /** Returns a group with the specified [index].\n *
*\n * @return An instance of [MatchGroup] if the group with the specified [index] was matched or `null` otherwise.\n
*\n * Groups are indexed from 1 to the count of groups in the regular expression. A group with the index 0\n *
corresponds to the entire match.\n */\n\n public operator fun get(index: Int): MatchGroup?\n\n /**\n * Extends
[MatchGroupCollection] by introducing a way to get matched groups by name, when regex supports it.\n
*\n * @since Kotlin("1.1")\n */\n\n public interface MatchNamedGroupCollection : MatchGroupCollection {\n\n /**\n *
Returns a named group with the specified [name].\n * @return An instance of [MatchGroup] if the group with the
specified [name] was matched or `null` otherwise.\n * @throws IllegalArgumentException if there is
no group with the specified [name] defined in the regex pattern.\n * @throws UnsupportedOperationException if
this match group collection doesn't support getting match groups by name.\n * for example, when it's not
supported by the current platform.\n */\n\n public operator fun get(name: String): MatchGroup?\n\n /**\n *
Represents the results from a single regular expression match.\n */\n\n public interface MatchResult {\n\n /** The
range of indices in the original string where match was captured.\n */\n\n public val range: IntRange\n\n /** The
substring from the input string captured by this match.\n */\n\n public val value: String\n\n /**\n * A collection of
groups matched by the regular expression.\n * This collection has size of `groupCount + 1` where
`groupCount` is the count of groups in the regular expression.\n * Groups are indexed from 1 to `groupCount` and
group with the index 0 corresponds to the entire match.\n */\n\n public val groups:
MatchGroupCollection\n\n /**\n * A list of matched indexed group values.\n * This list has size of
`groupCount + 1` where `groupCount` is the count of groups in the regular expression.\n * Groups are indexed
from 1 to `groupCount` and group with the index 0 corresponds to the entire match.\n * If the group in the
regular expression is optional and there were no match captured by that group,\n * corresponding item in
[groupValues] is an empty string.\n * @sample

```





returned by [TimeSource.Monotonic] time source.\n \* This time mark is implemented as an inline value class wrapping a platform-dependent\n \* time reading value of the default monotonic time source, thus allowing to avoid additional boxing\n \* of that value.\n \* The operations [plus] and [minus] are also specialized to return [ValueTimeMark] type.\n \* This time mark implements [ComparableTimeMark] and therefore is comparable with other time marks\n \* obtained from the same [TimeSource.Monotonic] time source.\n \*\n @ExperimentalTime\n @SinceKotlin("1.7")\n @JvmInline\n public value class ValueTimeMark internal constructor(internal val reading: ValueTimeMarkReading) : ComparableTimeMark {\n override fun elapsedNow(): Duration = MonotonicTimeSource.elapsedFrom(this)\n override fun plus(duration: Duration): ValueTimeMark = MonotonicTimeSource.adjustReading(this, duration)\n override fun minus(duration: Duration): ValueTimeMark = MonotonicTimeSource.adjustReading(this, -duration)\n override fun hasPassedNow(): Boolean = !elapsedNow().isNegative()\n override fun hasNotPassedNow(): Boolean = elapsedNow().isNegative()\n override fun minus(other: ComparableTimeMark): Duration {\n if (other !is ValueTimeMark)\n throw IllegalArgumentException("\nSubtracting or comparing time marks from different time sources is not possible: \$this and \$other")\n return this.minus(other)\n }\n\n /\*\*\n \* Returns the duration elapsed between the [other] time mark obtained from the same [TimeSource.Monotonic] time source and `this` time mark.\n \*\n \* The returned duration can be infinite if the time marks are far away from each other and\n \* the result doesn't fit into [Duration] type,\n \* or if one time mark is infinitely distant, or if both `this` and [other] time marks\n \* lie infinitely distant on the opposite sides of the time scale.\n \*\n \* Two infinitely distant time marks on the same side of the time scale are considered equal and\n \* the duration between them is [Duration.ZERO].\n \*\n public operator fun minus(other: ValueTimeMark): Duration = MonotonicTimeSource.differenceBetween(this, other)\n\n /\*\*\n \* Compares this time mark with the [other] time mark for order.\n \*\n \* - Returns zero if this time mark represents \*the same moment\* of time as the [other] time mark.\n \* - Returns a negative number if this time mark is \*earlier\* than the [other] time mark.\n \* - Returns a positive number if this time mark is \*later\* than the [other] time mark.\n \*\n public operator fun compareTo(other: ValueTimeMark): Int =\n (this - other).compareTo(Duration.ZERO)\n }\n }\n\n public companion object {\n\n /\*\*\n \* A platform-specific reading type that is wrapped by [TimeSource.Monotonic.ValueTimeMark] inline class. \*\n internal expect class ValueTimeMarkReading\n\n /\*\*\n \* Represents a time point notched on a particular [TimeSource]. Remains bound to the time source it was taken from\n \* and allows querying for the duration of time elapsed from that point (see the function [elapsedNow]).\n \*\n @SinceKotlin("1.3")\n @ExperimentalTime\n public interface TimeMark {\n\n /\*\*\n \* Returns the amount of time passed from this mark measured with the time source from which this mark was taken.\n \*\n \* Note that the value returned by this function can change on subsequent invocations.\n \*\n @throws\n IllegalArgumentException an implementation may throw if calculating the elapsed time involves\n \* adding a positive infinite duration to an infinitely distant past time mark or\n \* a negative infinite duration to an infinitely distant future time mark.\n \*\n public abstract fun elapsedNow(): Duration\n\n /\*\*\n \* Returns a time mark on the same time source that is ahead of this time mark by the specified [duration].\n \*\n \* The returned time mark is more \_late\_ when the [duration] is positive, and more \_early\_ when the [duration] is negative.\n \*\n \* If the time mark is adjusted too far in the past or in the future, it may saturate to an infinitely distant time mark.\n \*\n \* In that case, [elapsedNow] will return an infinite duration elapsed from such infinitely distant mark.\n \*\n @throws\n IllegalArgumentException an implementation may throw if a positive infinite duration is added to an infinitely distant past time mark or\n \* a negative infinite duration is added to an infinitely distant future time mark.\n \*\n public operator fun plus(duration: Duration): TimeMark = AdjustedTimeMark(this, duration)\n\n /\*\*\n \* Returns a time mark on the same time source that is behind this time mark by the specified [duration].\n \*\n \* The returned time mark is more \_early\_ when the [duration] is positive, and more \_late\_ when the [duration] is negative.\n \*\n \* If the time mark is adjusted too

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far in the past or in the future, it may saturate to an infinitely distant time mark.\n    * In that case, [elapsedNow]
will return an infinite duration elapsed from such infinitely distant mark.\n    *\n    * @throws
IllegalArgumentExcepTion an implementation may throw if a positive infinite duration is subtracted from an
infinitely distant future time mark or\n    * a negative infinite duration is subtracted
from an infinitely distant past time mark.\n    */\n    public open operator fun minus(duration: Duration): TimeMark
= plus(-duration)\n\n    /**\n    * Returns true if this time mark has passed according to the time source from
which this mark was taken.\n    *\n    * Note that the value returned by this function can change on subsequent
invocations.\n    * If the time source is monotonic, it can change only from `false` to `true`, namely, when the time
mark becomes behind the current point of the time source.\n    */\n    public fun hasPassedNow(): Boolean =
!elapsedNow().isNegative()\n\n    /**\n    * Returns false if this time mark has not passed according to the time
source from which this mark was taken.\n    *\n    * Note that the value returned by this function can change on
subsequent invocations.\n    * If the time source is monotonic, it can change only from `true` to `false`, namely,
when the time mark becomes behind the current point of the time source.\n
    */\n    public fun hasNotPassedNow(): Boolean = elapsedNow().isNegative()\n\n    }
}

A [TimeMark] that
can be compared for difference with other time marks obtained from the same [TimeSource.WithComparableMarks]
time source.\n    */\n    @SinceKotlin("1.8")\n    @ExperimentalTime\n    public interface ComparableTimeMark :
TimeMark, Comparable<ComparableTimeMark> {\n    public abstract override operator fun plus(duration:
Duration): ComparableTimeMark\n    public open override operator fun minus(duration: Duration):
ComparableTimeMark = plus(-duration)\n\n    /**\n    * Returns the duration elapsed between the [other] time mark
and `this` time mark.\n    *\n    * The returned duration can be infinite if the time marks are far away from each
other and\n    * the result doesn't fit into [Duration] type,\n    * or if one time mark is infinitely distant, or if both
`this` and [other] time marks\n    * lie infinitely distant on the opposite sides of the time scale.\n    *\n    * Two
infinitely
distant time marks on the same side of the time scale are considered equal and\n    * the duration between them is
[Duration.ZERO].\n    *\n    * Note that the other time mark must be obtained from the same time source as this
one.\n    *\n    * @throws IllegalArgumentExcepTion if time marks were obtained from different time sources.\n
    */\n    public operator fun minus(other: ComparableTimeMark): Duration\n\n    /**\n    * Compares this time mark
with the [other] time mark for order.\n    *\n    * - Returns zero if this time mark represents *the same moment* of
time as the [other] time mark.\n    * - Returns a negative number if this time mark is *earlier* than the [other] time
mark.\n    * - Returns a positive number if this time mark is *later* than the [other] time mark.\n    *\n    * Note
that the other time mark must be obtained from the same time source as this one.\n    *\n    * @throws
IllegalArgumentExcepTion if time marks were obtained from different
time sources.\n    */\n    public override operator fun compareTo(other: ComparableTimeMark): Int =\n    (this -
other).compareTo(Duration.ZERO)\n\n    /**\n    * Returns `true` if two time marks from the same time source
represent the same moment of time, and `false` otherwise,\n    * including the situation when the time marks were
obtained from different time sources.\n    */\n    override fun equals(other: Any?): Boolean\n    override fun
hashCode(): Int\n\n    }
}

@ExperimentalTime\nprivate class AdjustedTimeMark(val mark: TimeMark, val
adjustment: Duration) : TimeMark {\n    override fun elapsedNow(): Duration = mark.elapsedNow() -
adjustment\n\n    override fun plus(duration: Duration): TimeMark = AdjustedTimeMark(mark, adjustment +
duration)\n\n    }
}

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Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
    */\npackage kotlin.time\nimport
kotlin.time.Duration.Companion.milliseconds\nimport kotlin.time.Duration.Companion.nanoseconds\nimport
kotlin.time.Duration.Companion.seconds\n\n@SinceKotlin("1.3")\n@ExperimentalTime\ninternal expect object
MonotonicTimeSource : TimeSource.WithComparableMarks {\n    override fun markNow():
TimeSource.Monotonic.ValueTimeMark\n    fun elapsedFrom(timeMark:
TimeSource.Monotonic.ValueTimeMark): Duration\n    fun differenceBetween(one:
TimeSource.Monotonic.ValueTimeMark, another: TimeSource.Monotonic.ValueTimeMark): Duration\n    fun

```

adjustReading(timeMark: TimeSource.Monotonic.ValueTimeMark, duration: Duration):

TimeSource.Monotonic.ValueTimeMark\n}\n\n/\*\*\n \* An abstract class used to implement time sources that return their readings as [Long] values in the specified [unit].\n \*\n \* @property unit The unit in which this time source's readings are expressed.\n \*/\n@SinceKotlin("1.3")\n@ExperimentalTime\npublic abstract class

AbstractLongTimeSource(protected val unit:

DurationUnit) : TimeSource.WithComparableMarks {\n /\*\*\n \* This protected method should be overridden to return the current reading of the time source expressed as a [Long] number\n \* in the unit specified by the [unit]

property.\n \*/\n protected abstract fun read(): Long\n\n private class LongTimeMark(private val startedAt:

Long, private val timeSource: AbstractLongTimeSource, private val offset: Duration) : ComparableTimeMark {\n override fun elapsedNow(): Duration = if (offset.isInfinite()) -offset else (timeSource.read() - startedAt).toDuration(timeSource.unit) - offset\n override fun plus(duration: Duration): ComparableTimeMark = LongTimeMark(startedAt, timeSource, offset + duration)\n override fun minus(other:

ComparableTimeMark): Duration {\n if (other !is LongTimeMark || this.timeSource != other.timeSource)\n throw IllegalArgumentException("Subtracting or comparing time marks from different time sources is

not possible: \$this and \$other")\n\n val thisValue = this.effectiveDuration()\n val otherValue = other.effectiveDuration()\n if (thisValue == otherValue && thisValue.isInfinite()) return

Duration.ZERO\n return thisValue - otherValue\n if (this.offset == other.offset &&

this.offset.isInfinite()) return Duration.ZERO\n val offsetDiff = this.offset - other.offset\n val

startedAtDiff = (this.startedAt - other.startedAt).toDuration(timeSource.unit)\n println("\$startedAtDiff,

\$offsetDiff")\n return if (startedAtDiff == -offsetDiff) Duration.ZERO else startedAtDiff + offsetDiff\n

}\n\n override fun equals(other: Any?): Boolean =\n other is LongTimeMark && this.timeSource ==

other.timeSource && (this - other) == Duration.ZERO\n\n internal fun effectiveDuration(): Duration {\n

if (offset.isInfinite()) return offset\n val unit = timeSource.unit\n

if (unit >= DurationUnit.MILLISECONDS) {\n return startedAt.toDuration(unit) + offset\n

}\n val scale = convertDurationUnit(1L, DurationUnit.MILLISECONDS, unit)\n val startedAtMillis =

startedAt / scale\n val startedAtRem = startedAt % scale\n return offset.toComponents {

offsetSeconds, offsetNanoseconds ->\n val offsetMillis = offsetNanoseconds / NANOS\_IN\_MILLIS\n

val offsetRemNanos = offsetNanoseconds % NANOS\_IN\_MILLIS\n // add component-wise\n

(startedAtRem.toDuration(unit) + offsetRemNanos.nanoseconds) +\n (startedAtMillis +

offsetMillis).milliseconds +\n offsetSeconds.seconds\n }\n }\n\n override fun

hashCode(): Int = effectiveDuration().hashCode()\n\n override fun toString(): String =

"LongTimeMark(\$startedAt\${timeSource.unit.shortName()} + \$offset

(=\${effectiveDuration()}), \$timeSource)" \n\n override fun markNow(): ComparableTimeMark =

LongTimeMark(read(), this, Duration.ZERO)\n}\n\n/\*\*\n \* An abstract class used to implement time sources that

return their readings as [Double] values in the specified [unit].\n \*\n \* @property unit The unit in which this time

source's readings are expressed.\n \*/\n@SinceKotlin("1.3")\n@ExperimentalTime\n@Deprecated("Using

AbstractDoubleTimeSource is no longer recommended, use AbstractLongTimeSource instead.")\npublic abstract

class AbstractDoubleTimeSource(protected val unit: DurationUnit) : TimeSource.WithComparableMarks {\n

/\*\*\n \* This protected method should be overridden to return the current reading of the time source expressed as a

[Double] number\n \* in the unit specified by the [unit] property.\n \*/\n protected abstract fun read():

Double\n\n @Suppress("DEPRECATION")\n private class DoubleTimeMark(private val startedAt: Double,

private val timeSource:

AbstractDoubleTimeSource, private val offset: Duration) : ComparableTimeMark {\n override fun

elapsedNow(): Duration = (timeSource.read() - startedAt).toDuration(timeSource.unit) - offset\n override fun

plus(duration: Duration): ComparableTimeMark = DoubleTimeMark(startedAt, timeSource, offset + duration)\n\n

override fun minus(other: ComparableTimeMark): Duration {\n if (other !is DoubleTimeMark ||

this.timeSource != other.timeSource)\n throw IllegalArgumentException("Subtracting or comparing time

marks from different time sources is not possible: \$this and \$other")\n if (this.offset == other.offset &&



```

originNs)\n\ninternal fun saturatingOriginsDiff(origin1Ns: Long, origin2Ns: Long): Duration {\n  if
(origin2Ns.isSaturated()) { // MIN_VALUE or MAX_VALUE\n    if (origin1Ns == origin2Ns) return
Duration.ZERO //
    saturated values of the same sign are considered equal\n    return -(origin2Ns.toDuration(DurationUnit.DAYS)) //
saturate to infinity\n  }\n  if (origin1Ns.isSaturated()) {\n    return origin1Ns.toDuration(DurationUnit.DAYS)\n
  }\n  return saturatingFiniteDiff(origin1Ns, origin2Ns)\n}\n\nprivate fun saturatingFiniteDiff(value1Ns: Long,
value2Ns: Long): Duration {\n  val result = value1Ns - value2Ns\n  if ((result xor value1Ns) and (result xor
value2Ns).inv() < 0) {\n    val resultMs = value1Ns / NANOS_IN_MILLIS - value2Ns / NANOS_IN_MILLIS\n
    val resultNs = value1Ns % NANOS_IN_MILLIS - value2Ns % NANOS_IN_MILLIS\n    return
resultMs.milliseconds + resultNs.nanoseconds\n  }\n  return
result.nanoseconds\n}\n\n@Suppress("NOTHING_TO_INLINE")\nprivate inline fun Long.isSaturated(): Boolean
=\n  (this - 1) or 1 == Long.MAX_VALUE // == either MAX_VALUE or MIN_VALUE\n", /*\n * Copyright
2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n
* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\npackage kotlin.time\nimport kotlin.contracts.*\n\n/**\n * Executes the given function [block] and returns the
duration of elapsed time interval.\n * The elapsed time is measured with [TimeSource.Monotonic].\n
*/\n\n@SinceKotlin("1.3")\n@ExperimentalTime\npublic inline fun measureTime(block: () -> Unit): Duration {\n
  contract {\n    callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n  }\n  return
TimeSource.Monotonic.measureTime(block)\n}\n\n/**\n * Executes the given function [block] and returns the
duration of elapsed time interval.\n * The elapsed time is measured with the specified `this` [TimeSource]
instance.\n */\n\n@SinceKotlin("1.3")\n@ExperimentalTime\npublic inline fun TimeSource.measureTime(block: ()
-> Unit): Duration {\n  contract {\n    callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n  }\n\n  val
mark = markNow()\n
  block()\n  return mark.elapsedNow()\n}\n\n/**\n * Executes the given function [block] and returns the duration
of elapsed time interval.\n * The elapsed time is measured with the specified `this` [TimeSource.Monotonic]
instance.\n */\n\n@SinceKotlin("1.7")\n@ExperimentalTime\npublic inline fun
TimeSource.Monotonic.measureTime(block: () -> Unit): Duration {\n  contract {\n    callsInPlace(block,
InvocationKind.EXACTLY_ONCE)\n  }\n\n  val mark = markNow()\n  block()\n  return
mark.elapsedNow()\n}\n\n/**\n * Data class representing a result of executing an action, along with the duration
of elapsed time interval.\n * @property value the result of the action.\n * @property duration the time elapsed to
execute the action.\n */\n\n@SinceKotlin("1.3")\n@ExperimentalTime\npublic data class TimedValue<T>(val
value: T, val duration: Duration)\n\n/**\n * Executes the given function [block] and returns an instance of
[TimedValue] class, containing both\n * the result
of the function execution and the duration of elapsed time interval.\n * The elapsed time is measured with
[TimeSource.Monotonic].\n */\n\n@SinceKotlin("1.3")\n@ExperimentalTime\npublic inline fun <T>
measureTimedValue(block: () -> T): TimedValue<T> {\n  contract {\n    callsInPlace(block,
InvocationKind.EXACTLY_ONCE)\n  }\n\n  return
TimeSource.Monotonic.measureTimedValue(block)\n}\n\n/**\n * Executes the given [block] and returns an
instance of [TimedValue] class, containing both\n * the result of function execution and the duration of elapsed time
interval.\n * The elapsed time is measured with the specified `this` [TimeSource] instance.\n
*/\n\n@SinceKotlin("1.3")\n@ExperimentalTime\npublic inline fun <T> TimeSource.measureTimedValue(block: ()
-> T): TimedValue<T> {\n  contract {\n    callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n  }\n\n
val mark = markNow()\n  val result = block()\n  return TimedValue(result, mark.elapsedNow())\n}\n\n/**\n
* Executes the given [block] and returns an instance of [TimedValue] class, containing both\n * the result of
function execution and the duration of elapsed time interval.\n * The elapsed time is measured with the specified
`this` [TimeSource.Monotonic] instance.\n */\n\n@SinceKotlin("1.7")\n@ExperimentalTime\npublic inline fun <T>
TimeSource.Monotonic.measureTimedValue(block: () -> T): TimedValue<T> {\n  contract {\n
callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n  }\n\n  val mark = markNow()\n  val result =

```



block()\n return TimedValue(result, mark.elapsedNow())\n}\n", "/\*\n \* Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n \*/\n\npackage kotlin\n\nimport kotlin.coroutines.\*\nimport kotlin.coroutines.intrinsics.\*\nimport kotlin.native.concurrent.SharedImmutable\n\n/\*\*\n \* Defines deep recursive function that

keeps its stack on the heap,\n \* which allows very deep recursive computations that do not use the actual call stack.\n \* To initiate a call to this deep recursive function use its [invoke] function.\n \* As a rule of thumb, it should be used if recursion goes deeper than a thousand calls.\n \* The [DeepRecursiveFunction] takes one parameter of type [T] and returns a result of type [R].\n \* The [block] of code defines the body of a recursive function. In this block\n \* [callRecursive][DeepRecursiveScope.callRecursive] function can be used to make a recursive call\n \* to the declared function. Other instances of [DeepRecursiveFunction] can be called\n \* in this scope with

`callRecursive` extension, too.\n \* For example, take a look at the following recursive tree class and a deeply\n \* recursive instance of this tree with 100K nodes:\n \* class Tree(val left: Tree? = null, val right: Tree? = null)\n \* val deepTree = generateSequence(Tree()) { Tree(it) }.take(100\_000).last()\n

\* A regular recursive function can be defined to compute a depth of a tree:\n \* fun depth(t: Tree?): Int =\n \* if (t == null) 0 else max(depth(t.left), depth(t.right)) + 1\n \* println(depth(deepTree)) // StackOverflowError\n \* If this `depth` function is called for a `deepTree` it produces `StackOverflowError` because of deep recursion.\n \* However, the `depth` function can be rewritten using

`DeepRecursiveFunction` in the following way, and then\n \* it successfully computes

[`depth(deepTree)`][DeepRecursiveFunction.invoke] expression:\n \* val depth =

DeepRecursiveFunction<Tree?, Int> { t ->\n \* if (t == null) 0 else max(callRecursive(t.left),

callRecursive(t.right)) + 1\n \* }\n \* println(depth(deepTree)) // Ok\n \* Deep recursive functions can also

mutually call each other using a heap for the stack via\n \* [callRecursive][DeepRecursiveScope.callRecursive] extension. For example, the\n \* following pair of mutually

recursive functions computes the number of tree nodes at even depth in the tree.\n \* val mutualRecursion = object {\n \* val even: DeepRecursiveFunction<Tree?, Int> = DeepRecursiveFunction { t ->\n \* if (t == null) 0 else odd.callRecursive(t.left) + odd.callRecursive(t.right) + 1\n \* }\n \* val odd:

DeepRecursiveFunction<Tree?, Int> = DeepRecursiveFunction { t ->\n \* if (t == null) 0 else

even.callRecursive(t.left) + even.callRecursive(t.right)\n \* }\n \* }\n \* @param [T] the function

parameter type.\n \* @param [R] the function result type.\n \* @param block the function body.\n

\*\n@SinceKotlin("1.7")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic class

DeepRecursiveFunction<T, R>(\n internal val block: suspend DeepRecursiveScope<T, R>.(T) -> R)\n)\n\n/\*\*\n

Initiates a call to this deep recursive function, forming a root of the call tree.\n \* This operator should not be used from inside of [DeepRecursiveScope] as

it uses the call stack slot for\n \* initial recursive invocation. From inside of [DeepRecursiveScope] use\n

[callRecursive][DeepRecursiveScope.callRecursive].\n

\*\n@SinceKotlin("1.7")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic operator fun <T, R>

DeepRecursiveFunction<T, R>.invoke(value: T): R =\n DeepRecursiveScopeImpl<T, R>(block,

value).runCallLoop()\n\n/\*\*\n \* A scope class for [DeepRecursiveFunction] function declaration that defines

[callRecursive] methods to\n \* recursively call this function or another [DeepRecursiveFunction] putting the call activation frame on the heap.\n \* @param [T] function parameter type.\n \* @param [R] function result type.\n

\*\n@RestrictsSuspension\n@SinceKotlin("1.7")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic

sealed class DeepRecursiveScope<T, R> {\n /\*\n \* Makes recursive call to this [DeepRecursiveFunction]

function putting the call activation frame on the heap,\n \* as opposed to the actual call

stack that is used by a regular recursive call.\n \* public abstract suspend fun callRecursive(value: T): R\n

/\*\*\n \* Makes call to the specified [DeepRecursiveFunction] function putting the call activation frame on the

heap,\n \* as opposed to the actual call stack that is used by a regular call.\n \* public abstract suspend fun

<U, S> DeepRecursiveFunction<U, S>.callRecursive(value: U): S\n @Deprecated(\n level =

```

DeprecationLevel.ERROR,\n    message =\n    \'\'invoke\' should not be called from DeepRecursiveScope. \' +\n    \'\'Use \'callRecursive\' to do recursion in the heap instead of the call stack.\',\n    replaceWith =
ReplaceWith(\'\'this.callRecursive(value)\')\n )\n @Suppress(\'\'UNUSED_PARAMETER\'\')\n public operator
fun DeepRecursiveFunction<*, *>.invoke(value: Any?): Nothing =\n    throw
UnsupportedOperationException(\'\'Should not be called from DeepRecursiveScope\'\')\n}\n\n//
===== Implementation
=====
\n\nprivate typealias DeepRecursiveFunctionBlock = suspend DeepRecursiveScope<*,
*>.(<Any?> -> Any?)\n\n@SharedImmutable\nprivate val UNDEFINED_RESULT =
Result.success(COROUTINE_SUSPENDED)\n\n@Suppress(\'\'UNCHECKED_CAST\'\')\nprivate class
DeepRecursiveScopeImpl<T, R>(\n    block: suspend DeepRecursiveScope<T, R>.(<T> -> R,\n    value: T)\n):
DeepRecursiveScope<T, R>(), Continuation<R> {\n    // Active function block\n    private var function:
DeepRecursiveFunctionBlock = block as DeepRecursiveFunctionBlock\n\n    // Value to call function with\n
private var value: Any? = value\n\n    // Continuation of the current call\n    private var cont: Continuation<Any?>?
= this as Continuation<Any?>\n\n    // Completion result (completion of the whole call stack)\n    private var result:
Result<Any?> = UNDEFINED_RESULT\n\n    override val context: CoroutineContext\n    get() =
EmptyCoroutineContext\n\n    override fun resumeWith(result: Result<R>) {\n        this.cont =
null\n        this.result = result\n    }\n\n    override suspend fun callRecursive(value: T): R =
suspendCoroutineUninterceptedOrReturn { cont ->\n        // calling the same function that is currently active\n
this.cont = cont as Continuation<Any?>\n        this.value = value\n        COROUTINE_SUSPENDED\n    }\n\n    override suspend fun <U, S> DeepRecursiveFunction<U, S>.callRecursive(value: U): S =
suspendCoroutineUninterceptedOrReturn { cont ->\n        // calling another recursive function\n        val function =
block as DeepRecursiveFunctionBlock\n        with(this@DeepRecursiveScopeImpl) {\n            val currentFunction
= this.function\n            if (function !== currentFunction) {\n                // calling a different function -- create a
trampoline to restore function ref\n                this.function = function\n                this.cont =
crossFunctionCompletion(currentFunction, cont as Continuation<Any?>)\n            } else {\n                // calling the
same function -- direct\n                this.cont = cont as Continuation<Any?>\n            }\n            this.value = value\n
        }\n        COROUTINE_SUSPENDED\n    }\n\n    private fun crossFunctionCompletion(\n        currentFunction:
DeepRecursiveFunctionBlock,\n        cont: Continuation<Any?>\n    ): Continuation<Any?> =
Continuation(EmptyCoroutineContext) {\n        this.function = currentFunction\n        // When going back from a
trampoline we cannot just call cont.resume (stack usage!)\n        // We delegate the cont.resumeWith(it) call to
runCallLoop\n        this.cont = cont\n        this.result = it\n    }\n\n    @Suppress(\'\'UNCHECKED_CAST\'\')\n    fun
runCallLoop(): R {\n        while (true) {\n            // Note: cont is set to null in DeepRecursiveScopeImpl.resumeWith
when the whole computation completes\n            val result = this.result\n            val cont = this.cont\n            ?:
return (result as Result<R>).getOrNull() // done -- final result\n\n            // The order of comparison is important here for that case of rogue class with broken equals\n            if
(UNDEFINED_RESULT == result) {\n                // call \'\'function\'\' with \'\'value\'\' using \'\'cont\'\' as completion\n
                val r = try {\n                    // This is block.startCoroutine(this, value, cont)\n
                    function.startCoroutineUninterceptedOrReturn(this, value, cont)\n                } catch (e: Throwable) {\n
                    cont.resumeWithException(e)\n                }\n                continue\n            }\n            // If the function returns without
suspension -- calls its continuation immediately\n            if (r !== COROUTINE_SUSPENDED)\n                cont.resume(r as R)\n            } else {\n                // we returned from a crossFunctionCompletion trampoline -- call
resume here\n                this.result = UNDEFINED_RESULT // reset result back\n
                cont.resumeWith(result)\n            }\n        }\n    }\n\n    }\n}\n\n}\n}\n\n\'\'*\n * Copyright 2010-2023 JetBrains s.r.o. and Kotlin Programming Language contributors.\n *
Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\n\n// Auto-generated file. DO NOT
EDIT!\n\n@file:kotlin.jvm.JvmName(\'\'NumbersKt\'\')\n@file:kotlin.jvm.JvmMultifileClass\npackage
kotlin\n\nimport kotlin.math.sign\n\n/** Divides this value by the other value, flooring the result to an integer that is

```

closer to negative infinity.

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline fun Byte.floorDiv(other: Byte): Int = \n    this.toInt().floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline fun Byte.mod(other: Byte): Byte = \n    this.toInt().mod(other.toInt()).toByte()\n\n/**\n * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline fun Byte.floorDiv(other: Short): Int = \n    this.toInt().floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline fun Byte.mod(other: Short): Short = \n    this.toInt().mod(other.toInt()).toShort()\n\n/**\n * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline fun Byte.floorDiv(other: Int): Int = \n    this.toInt().floorDiv(other)\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline fun Byte.mod(other: Int): Int = \n    this.toInt().mod(other)\n\n/**\n * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline fun Byte.floorDiv(other: Long): Long = \n    this.toLong().floorDiv(other)\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n
```

```
* The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline fun Byte.mod(other: Long): Long = \n    this.toLong().mod(other)\n\n/**\n * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline fun Short.floorDiv(other: Byte): Int = \n    this.toInt().floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline fun Short.mod(other:
```

```
Byte): Byte = \n    this.toInt().mod(other.toInt()).toByte()\n\n/**\n * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline fun Short.floorDiv(other: Short): Int = \n    this.toInt().floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline fun Short.mod(other: Short): Short = \n    this.toInt().mod(other.toInt()).toShort()\n\n/**\n * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline fun Short.floorDiv(other: Int): Int = \n    this.toInt().floorDiv(other)\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the
```

`_divisor_` and has the absolute value less than the absolute value of the divisor.

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline fun Short.mod(other: Int): Int = \n    this.toInt().mod(other)\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline fun Short.floorDiv(other: Long): Long = \n    this.toLong().floorDiv(other)\n\n/** \n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline fun Short.mod(other: Long): Long = \n    this.toLong().mod(other)\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline fun Int.floorDiv(other: Byte): Int = \n    this.floorDiv(other.toInt())\n\n/** \n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline fun Int.mod(other: Byte): Byte = \n    this.mod(other.toInt()).toByte()\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline fun Int.floorDiv(other: Short): Int = \n    this.floorDiv(other.toInt())\n\n/** \n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline fun Int.mod(other: Short): Short = \n    this.mod(other.toInt()).toShort()\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline fun Int.floorDiv(other: Int): Int {\n    var q = this / other\n    if (this xor other < 0 && q * other != this) q--\n    return q\n}\n\n/** \n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline fun Int.mod(other: Int): Int {\n    val r = this % other\n    return r + (other and (((r xor other) and (r or -r)) shr 31))\n}\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline fun Int.floorDiv(other: Long): Long = \n    this.toLong().floorDiv(other)\n\n/** \n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline fun Int.mod(other: Long): Long = \n    this.toLong().mod(other)\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline fun Long.floorDiv(other: Byte): Long = \n    this.floorDiv(other.toLong())\n\n/** \n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline fun Long.mod(other: Byte): Byte = \n    this.mod(other.toLong()).toByte()\n\n/**
```

Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline  
fun Long.floorDiv(other: Short): Long = \n    this.floorDiv(other.toLong())\n\n/**\n * Calculates the remainder of  
flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the  
_divisor_ and has the absolute value less than the absolute value of the divisor.\n
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline  
fun Long.mod(other: Short): Short = \n    this.mod(other.toLong()).toShort()\n\n/**\n * Divides this value by the other  
value, flooring the result to an integer that is closer to negative infinity.
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline  
fun Long.floorDiv(other: Int): Long = \n    this.floorDiv(other.toLong())\n\n/**\n * Calculates the remainder of flooring division of this value by the other  
value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the  
absolute value of the divisor.\n
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline  
fun Long.mod(other: Int): Int = \n    this.mod(other.toLong()).toInt()\n\n/**\n * Divides this value by the other value,  
flooring the result to an integer that is closer to negative infinity.
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline  
fun Long.floorDiv(other: Long): Long {\n    var q = this / other\n    if (this xor other < 0 && q * other != this) q--\n    return q\n}\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The  
result is either zero or has the same sign as the _divisor_ and has the  
absolute value less than the absolute value of the divisor.\n
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline  
fun Long.mod(other: Long): Long {\n    val r = this % other\n    return r + (other and (((r xor other) and (r or -r)) shr  
63))\n}\n\n/**\n * Calculates the remainder of flooring division  
of this value by the other value.\n * \n * The result  
is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the  
divisor.\n * \n * If the result cannot be represented exactly, it is rounded to the nearest representable number. In this  
case the absolute value of the result can be less than or _equal to_ the absolute value of the divisor.\n
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline  
fun Float.mod(other: Float): Float {\n    val r = this % other\n    return if (r != 0.0.toFloat() && r.sign != other.sign) r  
+  
    other else r\n}\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The  
result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of  
the divisor.\n * \n * If the result cannot be represented exactly, it is rounded to the nearest representable number. In  
this case the absolute value of the result can be less than or _equal to_ the absolute value of the divisor.\n
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline  
fun Float.mod(other: Double): Double = \n    this.toDouble().mod(other)\n\n/**\n * Calculates the remainder of  
flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the  
_divisor_ and has the absolute value less than the absolute value of the divisor.\n * \n * If the result cannot be  
represented exactly, it is rounded to the nearest representable number. In  
this case the absolute value of the result can be less than or _equal to_ the absolute value of the divisor.\n
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline  
fun Double.mod(other: Float): Double = \n    this.mod(other.toDouble())\n\n/**\n * Calculates the remainder of  
flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the  
_divisor_ and has the absolute value less than the absolute value of the divisor.\n * \n * If the result cannot be  
represented exactly, it is rounded to the nearest representable number. In this case the absolute value of the result  
can be less than or _equal to_ the absolute value of the divisor.\n
```

```
*\n@SinceKotlin("1.5")\n@kotlin.internal.InlineOnly\n@kotlin.internal.IntrinsicConstEvaluation\npublic inline  
fun Double.mod(other: Double): Double {\n    val r = this % other\n    return if (r != 0.0 && r.sign != other.sign) r +
```

```

other else r\n}\n\n", "/*\n
 * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code
is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
kotlin\n\nimport kotlin.internal.InlineOnly\n\n/**\n * Returns a hash code value for the object or zero if the object
is `null`.\n */\n * @see Any.hashCode\n */\n@SinceKotlin("1.3")\n@InlineOnly\npublic inline fun
Any?.hashCode(): Int = this?.hashCode() ?: 0\n", "/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\n/**\n * Represents a version of the Kotlin standard
library.\n */\n * [major], [minor] and [patch] are integer components of a version,\n * they must be non-negative and
not greater than 255 ([MAX_COMPONENT_VALUE]).\n */\n * @constructor Creates a version from all three
components.\n\n */\n@SinceKotlin("1.1")\npublic class KotlinVersion(val major: Int, val minor: Int, val patch: Int) :
Comparable<KotlinVersion> {\n    /**\n     * Creates a version from [major] and [minor] components, leaving
[patch] component zero.\n     */\n    public constructor(major: Int, minor: Int) : this(major, minor, 0)\n\n    private val
version = versionOf(major, minor, patch)\n\n    private fun versionOf(major: Int, minor: Int, patch: Int): Int {\n
require(major in 0..MAX_COMPONENT_VALUE && minor in 0..MAX_COMPONENT_VALUE && patch in
0..MAX_COMPONENT_VALUE) {\n        "Version components are out of range: $major.$minor.$patch"\n
}\n    return major.shl(16) + minor.shl(8) + patch\n }\n\n    /**\n     * Returns the string representation of this
version.\n     */\n    override fun toString(): String = "$major.$minor.$patch"\n\n    override fun equals(other:
Any?): Boolean {\n        if (this === other) return true\n        val otherVersion = (other as?
KotlinVersion) ?: return false\n        return this.version == otherVersion.version\n    }\n\n    override fun
hashCode(): Int = version\n\n    override fun compareTo(other: KotlinVersion): Int = version - other.version\n\n
/**\n     * Returns `true` if this version is not less than the version specified\n     * with the provided [major] and
[minor] components.\n     */\n    public fun isAtLeast(major: Int, minor: Int): Boolean = // this.version >=
versionOf(major, minor, 0)\n        this.major > major || (this.major == major &&\n            this.minor >=
minor)\n\n    /**\n     * Returns `true` if this version is not less than the version specified\n     * with the provided
[major], [minor] and [patch] components.\n     */\n    public fun isAtLeast(major: Int, minor: Int, patch: Int): Boolean
= // this.version >= versionOf(major, minor, patch)\n        this.major > major || (this.major == major &&\n
(this.minor > minor || this.minor == minor &&\n
            this.patch >= patch))\n\n    companion object {\n        /**\n         * Maximum value a version component can
have, a constant value 255.\n         */\n        // NOTE: Must be placed before CURRENT because its initialization
requires this field being initialized in JS\n        public const val MAX_COMPONENT_VALUE = 255\n\n        /**\n
         * Returns the current version of the Kotlin standard library.\n         */\n        @kotlin.jvm.JvmField\n        public
val CURRENT: KotlinVersion = KotlinVersionCurrentValue.get()\n    }\n\n    // this class is ignored during
classpath normalization when considering whether to recompile dependencies in Kotlin build\nprivate object
KotlinVersionCurrentValue {\n    @kotlin.jvm.JvmStatic\n    fun get(): KotlinVersion = KotlinVersion(1, 8, 10) //
value is written here automatically during build\n", "/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache
2.0 license that can be found in the license/LICENSE.txt file.\n\n */\n\n@file:kotlin.jvm.JvmName("LateinitKt")\n@file:Suppress("unused")\n\npackage kotlin\n\nimport
kotlin.internal.InlineOnly\nimport kotlin.internal.AccessibleLateinitPropertyLiteral\nimport
kotlin.reflect.KProperty0\n\n/**\n * Returns `true` if this lateinit property has been assigned a value, and `false`
otherwise.\n */\n * Cannot be used in an inline function, to avoid binary compatibility issues.\n\n */\n@SinceKotlin("1.2")\n@InlineOnly\ninline val @receiver: AccessibleLateinitPropertyLiteral
KProperty0<*>.isInitialized: Boolean\n    get() = throw NotImplementedError("Implementation is
intrinsic")\n", "/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use
of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n\n */\n\n@file:kotlin.jvm.JvmName("LazyKt")\n@file:kotlin.jvm.JvmMultifileClass\n\npackage kotlin\n\nimport

```

```

kotlin.reflect.KProperty\n\n/**\n * Represents a value with lazy initialization.\n *\n * To create an instance of
[Lazy] use the [lazy] function.\n *\npublic interface Lazy<out T> {\n /**\n * Gets the lazily initialized value of
the current Lazy instance.\n * Once the value was initialized it must not change during the rest of lifetime of this
Lazy instance.\n *\n public val value: T\n /**\n * Returns `true` if a value for this Lazy instance has been
already initialized, and `false` otherwise.\n * Once this function has returned `true` it stays `true` for the rest of
lifetime of this Lazy instance.\n *\n public fun isInitialized(): Boolean\n}\n\n/**\n * Creates a new instance of
the [Lazy] that is already initialized with the specified [value].\n *\npublic fun <T> lazyOf(value: T): Lazy<T> =
InitializedLazyImpl(value)\n\n/**\n * An extension to delegate a read-only property of type [T] to an instance of
[Lazy].\n *\n * This extension allows to
use instances of Lazy for property delegation:\n * `val property: String by lazy { initializer }`\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Lazy<T>.getValue(thisRef: Any?, property:
KProperty<*>): T = value\n\n/**\n * Specifies how a [Lazy] instance synchronizes initialization among multiple
threads.\n *\npublic enum class LazyThreadSafetyMode {\n\n /**\n * Locks are used to ensure that only a
single thread can initialize the [Lazy] instance.\n *\n SYNCHRONIZED,\n\n /**\n * Initializer function
can be called several times on concurrent access to uninitialized [Lazy] instance value,\n * but only the first
returned value will be used as the value of [Lazy] instance.\n *\n PUBLICATION,\n\n /**\n * No locks are
used to synchronize an access to the [Lazy] instance value; if the instance is accessed from multiple threads, its
behavior is undefined.\n *\n * This mode should not be used unless the [Lazy] instance is guaranteed
never to be initialized from more than one thread.\n *\n NONE,\n}\n\n\ninternal object
UNINITIALIZED_VALUE\n\n// internal to be called from lazy in JS\ninternal class UnsafeLazyImpl<out
T>(initializer: () -> T) : Lazy<T>, Serializable {\n private var initializer: (() -> T)? = initializer\n private var
_value: Any? = UNINITIALIZED_VALUE\n\n override val value: T\n get() {\n if (_value ===
UNINITIALIZED_VALUE) {\n _value = initializer!!()\n initializer = null\n }\n
@Suppress("UNCHECKED_CAST")\n return _value as T\n }\n\n override fun isInitialized():
Boolean = _value !== UNINITIALIZED_VALUE\n\n override fun toString(): String = if (isInitialized())
value.toString() else "Lazy value not initialized yet."\n\n private fun writeReplace(): Any =
InitializedLazyImpl(value)\n}\n\n\ninternal class InitializedLazyImpl<out T>(override val value: T) : Lazy<T>,
Serializable {\n\n
override fun isInitialized(): Boolean = true\n\n override fun toString(): String = value.toString()\n}\n", "/*\n *
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governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("NumbersKt")\npackage kotlin\n\n/**\n *
Counts the number of set bits in the binary representation of this [Int] number.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun
Int.countOneBits(): Int\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary
representation of this [Int] number.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun
Int.countLeadingZeroBits(): Int\n\n/**\n * Counts the number of consecutive least significant bits that are zero in
the binary representation
of this [Int] number.\n *\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic
expect fun Int.countTrailingZeroBits(): Int\n\n/**\n * Returns a number having a single bit set in the position of the
most significant set bit of this [Int] number,\n * or zero, if this number is zero.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun
Int.takeHighestOneBit(): Int\n\n/**\n * Returns a number having a single bit set in the position of the least
significant set bit of this [Int] number,\n * or zero, if this number is zero.\n
*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun
Int.takeLowestOneBit(): Int\n\n/**\n * Rotates the binary representation of this [Int] number left by the specified
[bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least

```

significant bits on the right side.

\* Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count: `number.rotateLeft(-n) == number.rotateRight(n)`

\* Rotating by a multiple of [Int.SIZE\_BITS] (32) returns the same number, or more generally `number.rotateLeft(n) == number.rotateLeft(n % 32)`

```
*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Int.rotateLeft(bitCount: Int): Int\n\n/**\n * Rotates the binary representation of this [Int] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n * Rotating by a multiple of [Int.SIZE_BITS] (32) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 32)`\n\n*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Int.rotateRight(bitCount: Int): Int\n\n/**\n * Counts the number of set bits in the binary representation of this [Long] number.\n\n*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.countOneBits(): Int\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [Long] number.\n\n*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.countLeadingZeroBits(): Int\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [Long] number.\n\n*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.countTrailingZeroBits(): Int\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [Long] number,\n * or zero, if this number is zero.\n\n*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.takeHighestOneBit(): Long\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [Long] number,\n * or zero, if this number is zero.\n\n*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.takeLowestOneBit(): Long\n\n/**\n * Rotates the binary representation of this [Long] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n * Rotating by a multiple of [Long.SIZE_BITS] (64) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 64)`\n\n*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.rotateLeft(bitCount: Int): Long\n\n/**\n * Rotates the binary representation of this [Long] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n * Rotating by a multiple of [Long.SIZE_BITS] (64) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 64)`\n\n*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.rotateRight(bitCount: Int): Long\n\n/**\n * Counts the number of set bits in the binary representation of this [Byte] number.\n\n*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.countOneBits(): Int = (toInt() and 0xFF).countOneBits()\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [Byte] number.\n\n*\n@SinceKotlin("1.4")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.countLeadingZeroBits(): Int = (toInt() and 0xFF).countLeadingZeroBits() - (Int.SIZE_BITS -
```





representation of this [Short] number left by the specified [bitCount] number of bits.\n \* The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n \* Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n \* `number.rotateLeft(-n) == number.rotateRight(n)`\n \* Rotating by a multiple of [Short.SIZE\_BITS] (16) returns the same number, or more generally\n \* `number.rotateLeft(n) == number.rotateLeft(n % 16)`\n

```

*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun
Short.rotateLeft(bitCount: Int): Short =\n    (toInt().shl(bitCount and 15) or (toInt() and 0xFFFF).ushr(16 - (bitCount
and 15))).toShort()\n\n**\n * Rotates the binary representation of this [Short] number right by the specified
[bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the
most significant bits on the left side.\n * Rotating the number right by a negative bit count is the same as rotating
it left by the negated bit count:\n
 * `number.rotateRight(-n) == number.rotateLeft(n)`\n * Rotating by a multiple of [Short.SIZE_BITS] (16)
returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 16)`\n
*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun
Short.rotateRight(bitCount: Int): Short =\n    (toInt().shl(16 - (bitCount and 15)) or (toInt() and
0xFFFF).ushr(bitCount and 15)).toShort()\n\n"/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin\nimport kotlin.internal.RequireKotlin\nimport
kotlin.internal.RequireKotlinVersionKind\n\n@kotlin.internal.InlineOnly\n@SinceKotlin("1.2")\n@Suppress("IN
VISIBLE_MEMBER", "INVISIBLE_REFERENCE")\npublic inline fun <R> suspend(noinline block: suspend ()
-> R): suspend () -> R = block\n\n"/*\n * Copyright 2010-2018 JetBrains
s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0
license that can be found in the license/LICENSE.txt file.\n
*\n\n@file:kotlin.jvm.JvmName("TuplesKt")\n\npackage kotlin\n\n**\n * Represents a generic pair of two
values.\n * There is no meaning attached to values in this class, it can be used for any purpose.\n * Pair exhibits
value semantics, i.e. two pairs are equal if both components are equal.\n * An example of decomposing it into
values:\n * @sample samples.misc.Tuples.pairDestructuring\n * @param A type of the first value.\n * @param
B type of the second value.\n * @property first First value.\n * @property second Second value.\n * @constructor
Creates a new instance of Pair.\n */\n\npublic data class Pair<out A, out B>(\n    public val first: A,\n    public val
second: B\n) : Serializable {\n\n    /**\n     * Returns string representation of the [Pair] including its [first] and
[second] values.\n
     *\n     * public override fun toString(): String = "$first, $second"\n\n**\n * Creates a tuple of type [Pair] from
this and [that].\n * This can be useful for creating [Map] literals with less noise, for example:\n * @sample
samples.collections.Maps.instantiation.mapFromPairs\n */\n\npublic infix fun <A, B> A.to(that: B): Pair<A, B> =
Pair(this, that)\n\n**\n * Converts this pair into a list.\n * @sample samples.misc.Tuples.pairToList\n */\n\npublic
fun <T> Pair<T, T>.toList(): List<T> = listOf(first, second)\n\n**\n * Represents a triad of values\n * There is
no meaning attached to values in this class, it can be used for any purpose.\n * Triple exhibits value semantics, i.e.
two triples are equal if all three components are equal.\n * An example of decomposing it into values:\n * @sample
samples.misc.Tuples.tripleDestructuring\n * @param A type of the first value.\n * @param B type of the second
value.\n * @param C type of the third value.\n * @property first First value.\n
 * @property second Second value.\n * @property third Third value.\n */\n\npublic data class Triple<out A, out B, out
C>(\n    public val first: A,\n    public val second: B,\n    public val third: C\n) : Serializable {\n\n    /**\n     *
Returns string representation of the [Triple] including its [first], [second] and [third] values.\n     *\n     * public
override fun toString(): String = "$first, $second, $third"\n\n**\n * Converts this triple into a list.\n *
@sample samples.misc.Tuples.tripleToList\n */\n\npublic fun <T> Triple<T, T, T>.toList(): List<T> = listOf(first,
second, third)\n\n"/*\n * Copyright 2010-2023 JetBrains s.r.o. and Kotlin Programming Language contributors.\n *
Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n

```

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*\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin.ranges\n\nimport kotlin.internal.*\n\n/**\n * A range of values of type `UInt`.\n */\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@OptIn(ExperimentalStdlibApi::class)\npublic\n    class UIntRange(start: UInt, endInclusive: UInt) : UIntProgression(start, endInclusive, 1), ClosedRange<UInt>, OpenEndRange<UInt> {\n        override val start: UInt get() = first\n        override val endInclusive: UInt get() = last\n\n        @SinceKotlin("1.7")\n        @ExperimentalStdlibApi\n        @Deprecated("Can throw an exception when it's impossible to represent the value with UInt type, for example, when the range includes MAX_VALUE. It's recommended to use 'endInclusive' property that doesn't throw.")\n        override val endExclusive: UInt get() {\n            if (last == UInt.MAX_VALUE) error("Cannot return the exclusive upper bound of a range that includes MAX_VALUE.")\n            return last + 1u\n        }\n\n        override fun contains(value: UInt): Boolean = first <= value && value <= last\n\n        /**\n         * Checks if the range is empty.\n         *\n         * The range is empty if its start value is greater than the end value.\n         */\n        override fun isEmpty(): Boolean = first > last\n\n        override fun equals(other: Any?): Boolean =\n            other is UIntRange && (isEmpty() && other.isEmpty() ||\n                first == other.first && last == other.last)\n\n        override fun hashCode(): Int =\n            if (isEmpty()) -1 else (31 * first.toInt() + last.toInt())\n\n        override fun toString(): String = "$first..$last"\n\n        companion object {\n            /**\n             * An empty range of values of type UInt.\n             */\n            public val EMPTY: UIntRange = UIntRange(UInt.MAX_VALUE, UInt.MIN_VALUE)\n        }\n    }\n\n/**\n * A progression of values of type `UInt`.\n */\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic open class\n    UIntProgression\n        internal constructor(\n            start: UInt,\n            endInclusive: UInt,\n            step: Int\n        ) : Iterable<UInt> {\n        init {\n            if (step == 0.toInt()) throw kotlin.IllegalArgumentException("Step must be non-zero.")\n            if (step == Int.MIN_VALUE)\n                throw kotlin.IllegalArgumentException("Step must be greater than Int.MIN_VALUE to avoid overflow on negation.")\n        }\n\n        /**\n         * The first element in the progression.\n         */\n        public val first: UInt = start\n\n        /**\n         * The last element in the progression.\n         */\n        public val last: UInt = getProgressionLastElement(start, endInclusive, step)\n\n        /**\n         * The step of the progression.\n         */\n        public val step: Int = step\n\n        final\n        override fun iterator(): Iterator<UInt> = UIntProgressionIterator(first, last, step)\n\n        /**\n         *\n         * Checks if the progression is empty.\n         *\n         * Progression with a positive step is empty if its first element is greater than the last element.\n         * Progression with a negative step is empty if its first element is less than the last element.\n         */\n        public open fun isEmpty(): Boolean = if (step > 0) first > last else first < last\n\n        override fun equals(other: Any?): Boolean =\n            other is\n                UIntProgression && (isEmpty() && other.isEmpty() ||\n                    first == other.first && last == other.last && step == other.step)\n\n        override fun hashCode(): Int =\n            if (isEmpty()) -1 else (31 * (31 * first.toInt() + last.toInt()) + step.toInt())\n\n        override fun toString(): String = if (step > 0) "$first..$last step $step" else "$first downTo $last step ${-step}"\n\n        companion object {\n            /**\n             * Creates UIntProgression within the specified bounds of a closed range.\n             *\n             * The progression starts with the [rangeStart] value and goes toward the [rangeEnd] value not excluding it, with the specified [step].\n             *\n             * In order to go backwards the [step] must be negative.\n             *\n             * [step] must be greater than `Int.MIN_VALUE` and not equal to zero.\n             */\n            public fun fromClosedRange(rangeStart: UInt, rangeEnd: UInt, step: Int): UIntProgression =\n                UIntProgression(rangeStart, rangeEnd, step)\n        }\n    }\n\n/**\n * An iterator over a progression of values of type `UInt`.\n * @property step the number by which the value is incremented on each step.\n */\n@SinceKotlin("1.3")\nprivate class UIntProgressionIterator(first: UInt, last: UInt, step: Int) : Iterator<UInt> {\n    private val finalElement = last\n    private var hasNext: Boolean = if (step > 0) first <= last else first >= last\n    private val step = step.toInt() // use 2-complement math for negative steps\n    private var next = if (hasNext) first else finalElement\n\n    override fun hasNext(): Boolean = hasNext\n\n    override fun next(): UInt {\n        val value = next\n        if (value == finalElement) {\n            if (!hasNext) throw\n                kotlin.NoSuchElementException()\n            hasNext = false\n        } else {\n            next += step\n        }\n    }\n}

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return value\n    }\n}\n\n"/**\n * Copyright 2010-2023 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0
license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT
EDIT!\n\npackage kotlin.ranges\n\nimport kotlin.internal.*\n\n/**\n * A range of values of type `ULong`. \n
*/\n\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@OptIn(ExperimentalStdlib
Api::class)\npublic class ULongRange(start: ULong, endInclusive: ULong) : ULongProgression(start, endInclusive,
1), ClosedRange<ULong>, OpenEndRange<ULong> {\n    override val start: ULong get() = first\n    override val
endInclusive: ULong get() = last\n    \n    @SinceKotlin("1.7")\n    @ExperimentalStdlibApi\n    @Deprecated("Can throw an exception when it's impossible to represent the value with ULong type, for example,
when the range includes MAX_VALUE. It's recommended to use 'endInclusive' property that doesn't throw.")\n    override val endExclusive: ULong get() {\n        if (last == ULong.MAX_VALUE) error("Cannot return the
exclusive upper bound of a range that includes
MAX_VALUE.")\n        return last + 1u\n    }\n    \n    override fun contains(value: ULong): Boolean = first <= value
&& value <= last\n    \n    /**\n     * Checks if the range is empty.\n     * \n     * The range is empty if its start value is
greater than the end value.\n     */\n    override fun isEmpty(): Boolean = first > last\n    \n    override fun equals(other:
Any?): Boolean =\n        other is ULongRange && (isEmpty() && other.isEmpty() ||\n            first == other.first
&& last == other.last)\n    \n    override fun hashCode(): Int =\n        if (isEmpty()) -1 else (31 * (first xor (first shr
32)).toInt() + (last xor (last shr 32)).toInt())\n    \n    override fun toString(): String = "$first..$last"\n    \n    companion
object {\n        /**\n         * An empty range of values of type ULong. */\n        public val EMPTY: ULongRange =
ULongRange(ULong.MAX_VALUE, ULong.MIN_VALUE)\n    }\n}\n\n/**\n * A progression of values of type
`ULong`. \n
*/\n\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic
open class ULongProgression\n    internal constructor(\n        start: ULong,\n        endInclusive: ULong,\n        step: Long\n    ) :
Iterable<ULong> {\n    init {\n        if (step == 0.toLong()) throw kotlin.IllegalArgumentException("Step must be
non-zero.")\n        if (step == Long.MIN_VALUE) throw kotlin.IllegalArgumentException("Step must be greater
than Long.MIN_VALUE to avoid overflow on negation.")\n    }\n    \n    /**\n     * The first element in the
progression.\n     */\n    public val first: ULong = start\n    \n    /**\n     * The last element in the progression.\n     */\n    public val last: ULong = getProgressionLastElement(start, endInclusive, step)\n    \n    /**\n     * The step of the
progression.\n     */\n    public val step: Long = step\n    \n    final override fun iterator(): Iterator<ULong> =
ULongProgressionIterator(first, last, step)\n    \n    /**\n     * Checks if the progression is empty.\n     * \n     *
Progression with a positive step is empty if its
first element is greater than the last element.\n     * \n     * Progression with a negative step is empty if its first element is
less than the last element.\n     */\n    public open fun isEmpty(): Boolean = if (step > 0) first > last else first <
last\n    \n    override fun equals(other: Any?): Boolean =\n        other is ULongProgression && (isEmpty() &&
other.isEmpty() ||\n            first == other.first && last == other.last && step == other.step)\n    \n    override fun
hashCode(): Int =\n        if (isEmpty()) -1 else (31 * (31 * (first xor (first shr 32)).toInt() + (last xor (last shr
32)).toInt()) + (step xor (step ushr 32)).toInt())\n    \n    override fun toString(): String = if (step > 0) "$first..$last step
$step" else "$first downTo $last step ${-step}"\n    \n    companion object {\n        /**\n         * Creates
ULongProgression within the specified bounds of a closed range.\n         * \n         * The progression starts with the
[rangeStart] value and goes toward the [rangeEnd] value not excluding
it, with the specified [step].\n         * \n         * In order to go backwards the [step] must be negative.\n         * \n         * [step]
must be greater than `Long.MIN_VALUE` and not equal to zero.\n         */\n        public fun
fromClosedRange(rangeStart: ULong, rangeEnd: ULong, step: Long): ULongProgression =
ULongProgression(rangeStart, rangeEnd, step)\n    }\n}\n\n/**\n * An iterator over a progression of values of type
`ULong`. \n
*/\n\n * @property step the number by which the value is incremented on each step.\n
*/\n\n@SinceKotlin("1.3")\nprivate class ULongProgressionIterator(first: ULong, last: ULong, step: Long) :
Iterator<ULong> {\n    private val finalElement = last\n    private var hasNext: Boolean = if (step > 0) first <= last
else first >= last\n    private val step = step.toULong() // use 2-complement math for negative steps\n    private var
next = if (hasNext) first else finalElement\n    \n    override fun hasNext(): Boolean = hasNext\n    \n    override fun

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next(): ULong {\n
    val value = next\n        if (value == finalElement) {\n            if (!hasNext) throw
kotlin.NoSuchElementException()\n                hasNext = false\n        } else {\n            next += step\n        }\n
return value\n    }\n}\n\n", /*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin.math\n\n/**\n * Returns the smaller of two values.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\n
npublic inline fun min(a: UInt, b: UInt): UInt {\n    return minOf(a, b)\n}\n\n/**\n * Returns the smaller of two
values.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\n
npublic inline fun min(a: ULong, b: ULong): ULong {\n    return minOf(a, b)\n}\n\n/**\n * Returns the greater of
two values.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\n
npublic
inline fun max(a: UInt, b: UInt): UInt {\n    return maxOf(a, b)\n}\n\n/**\n * Returns the greater of two values.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\n
npublic inline fun max(a: ULong, b: ULong): ULong {\n    return maxOf(a, b)\n}\n", /*\n * Copyright 2010-2021
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\n@file:kotlin.jvm.JvmName("UNumbersKt")\npackage kotlin\n\n/**\n * Counts the number of set bits in the
binary representation of this [UInt] number.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\n
npublic inline fun UInt.countOneBits(): Int =
toInt().countOneBits()\n\n/**\n * Counts
the number of consecutive most significant bits that are zero in the binary representation of this [UInt] number.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\n
npublic inline fun UInt.countLeadingZeroBits(): Int =
toInt().countLeadingZeroBits()\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the
binary representation of this [UInt] number.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\n
npublic inline fun UInt.countTrailingZeroBits(): Int =
toInt().countTrailingZeroBits()\n\n/**\n * Returns a number having a single bit set in the position of the most
significant set bit of this [UInt] number,\n * or zero, if this number is zero.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\n
npublic
inline fun UInt.takeHighestOneBit(): UInt = toInt().takeHighestOneBit().toUInt()\n\n/**\n * Returns a number
having a single bit set in the position of the least significant set bit of this [UInt] number,\n * or zero, if this number
is zero.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\n
npublic inline fun UInt.takeLowestOneBit(): UInt =
toInt().takeLowestOneBit().toUInt()\n\n/**\n * Rotates the binary representation of this [UInt] number left by the
specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as
the least significant bits on the right side.\n * \n * Rotating the number left by a negative bit count is the same as
rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n * \n * Rotating by a
multiple of [UInt.SIZE_BITS] (32) returns the same number, or more generally\n * `number.rotateLeft(n)
== number.rotateLeft(n % 32)`\n
*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class,
ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\n
npublic inline fun UInt.rotateLeft(bitCount: Int):
UInt = toInt().rotateLeft(bitCount).toUInt()\n\n/**\n * Rotates the binary representation of this [UInt] number
right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter

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the number as the most significant bits on the left side.  
 \* Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:  
`number.rotateRight(-n) == number.rotateLeft(n)`  
 \* Rotating by a multiple of [UInt.SIZE\_BITS] (32) returns the same number, or more generally  
`number.rotateRight(n) == number.rotateRight(n % 32)`

\* Since Kotlin 1.6  
 WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)  
 kotlin.internal.InlineOnly  
 public inline fun UInt.rotateRight(bitCount: Int): UInt = toInt().rotateRight(bitCount).toUInt()  
 \* Counts the number of set bits in the binary representation of this [ULong] number.

\* Since Kotlin 1.5  
 WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)  
 kotlin.internal.InlineOnly  
 public inline fun ULong.countOneBits(): Int = toLong().countOneBits()  
 \* Counts the number of consecutive most significant bits that are zero in the binary representation of this [ULong] number.

\* Since Kotlin 1.5  
 WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)  
 kotlin.internal.InlineOnly  
 public inline fun ULong.countLeadingZeroBits(): Int = toLong().countLeadingZeroBits()  
 \* Counts the number of consecutive least significant bits that are zero in the binary representation of this [ULong] number.

\* Since Kotlin 1.5  
 WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)  
 kotlin.internal.InlineOnly  
 public inline fun ULong.countTrailingZeroBits(): Int = toLong().countTrailingZeroBits()  
 \* Returns a number having a single bit set in the position of the most significant set bit of this [ULong] number, or zero, if this number is zero.

\* Since Kotlin 1.5  
 WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)  
 kotlin.internal.InlineOnly  
 public inline fun ULong.takeHighestOneBit(): ULong = toLong().takeHighestOneBit().toULong()  
 \* Returns a number having a single bit set in the position of the least significant set bit of this [ULong] number, or zero, if this number is zero.

\* Since Kotlin 1.5  
 WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)  
 kotlin.internal.InlineOnly  
 public inline fun ULong.takeLowestOneBit(): ULong = toLong().takeLowestOneBit().toULong()  
 \* Rotates the binary representation of this [ULong] number left by the specified [bitCount] number of bits.  
 \* The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.  
 \* Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:  
`number.rotateLeft(-n) == number.rotateRight(n)`  
 \* Rotating by a multiple of [ULong.SIZE\_BITS] (64) returns the same number, or more generally  
`number.rotateLeft(n) == number.rotateLeft(n % 64)`

\* Since Kotlin 1.6  
 WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)  
 kotlin.internal.InlineOnly  
 public inline fun ULong.rotateLeft(bitCount: Int): ULong = toLong().rotateLeft(bitCount).toULong()  
 \* Rotates the binary representation of this [ULong] number right by the specified [bitCount] number of bits.  
 \* The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.  
 \* Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:  
`number.rotateRight(-n) == number.rotateLeft(n)`  
 \* Rotating by a multiple of [ULong.SIZE\_BITS] (64) returns the same number, or more generally  
`number.rotateRight(n) == number.rotateRight(n % 64)`

\* Since Kotlin 1.6  
 WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)  
 kotlin.internal.InlineOnly  
 public inline fun ULong.rotateRight(bitCount: Int): ULong = toLong().rotateRight(bitCount).toULong()  
 \* Counts the number of set bits in the binary representation of this [UByte] number.

\* Since Kotlin 1.5  
 WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)  
 kotlin.internal.InlineOnly  
 public inline fun UByte.countOneBits(): Int = toUInt().countOneBits()  
 \* Counts the number of consecutive most significant bits that are zero in the binary representation of this [UByte] number.

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*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.countLeadingZeroBits(): Int =
toByte().countLeadingZeroBits()\n\n/**\n * Counts the number of consecutive least significant bits that are zero
in the binary representation of this [UByte] number.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.countTrailingZeroBits(): Int =
toByte().countTrailingZeroBits()\n\n/**\n * Returns a number having a single bit set in the position of the most
significant set bit of this [UByte] number,\n * or zero, if this number is zero.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.takeHighestOneBit(): UByte =
toInt().takeHighestOneBit().toUByte()\n\n/**\n * Returns a number having a single bit set in the
position of the least significant set bit of this [UByte] number,\n * or zero, if this number is zero.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.takeLowestOneBit(): UByte =
toInt().takeLowestOneBit().toUByte()\n\n\n/**\n * Rotates the binary representation of this [UByte] number left by
the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the
number as the least significant bits on the right side.\n * Rotating the number left by a negative bit count is the
same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n * Rotating by a multiple of [UByte.SIZE_BITS] (8) returns the same number, or more generally\n *
`number.rotateLeft(n) == number.rotateLeft(n % 8)`\n
*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class,
ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic
inline fun UByte.rotateLeft(bitCount: Int): UByte = toByte().rotateLeft(bitCount).toUByte()\n\n/**\n * Rotates the
binary representation of this [UByte] number right by the specified [bitCount] number of bits.\n * The least
significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n *
`number.rotateRight(-n) == number.rotateLeft(n)`\n * Rotating by a multiple of [UByte.SIZE_BITS] (8) returns
the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 8)`\n
*\n@SinceKotlin("1.6")\n@WasExperimental(ExperimentalStdlibApi::class,
ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.rotateRight(bitCount:
Int): UByte = toByte().rotateRight(bitCount).toUByte()\n\n/**\n * Counts the number of set bits in the
binary representation of this [UShort] number.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.countOneBits(): Int =
toUInt().countOneBits()\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the
binary representation of this [UShort] number.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.countLeadingZeroBits(): Int =
toShort().countLeadingZeroBits()\n\n/**\n * Counts the number of consecutive least significant bits that are zero
in the binary representation of this [UShort] number.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.countTrailingZeroBits(): Int =
toShort().countTrailingZeroBits()\n\n/**\n * Returns
a number having a single bit set in the position of the most significant set bit of this [UShort] number,\n * or zero, if
this number is zero.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.takeHighestOneBit(): UShort =
toInt().takeHighestOneBit().toUShort()\n\n/**\n * Returns a number having a single bit set in the position of the
least significant set bit of this [UShort] number,\n * or zero, if this number is zero.\n

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*^@SinceKotlin("1.5")@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)@kotlin.internal.InlineOnly\npublic inline fun UShort.takeLowestOneBit(): UShort
= toInt().takeLowestOneBit().toUShort()\n\n/**\n * Rotates the binary representation of this [UShort] number left
by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the
number as the least significant
bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the
negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of
[UShort.SIZE_BITS] (16) returns the same number, or more generally\n * `number.rotateLeft(n) ==
number.rotateLeft(n % 16)`\n */^@SinceKotlin("1.6")@WasExperimental(ExperimentalStdlibApi::class,
ExperimentalUnsignedTypes::class)@kotlin.internal.InlineOnly\npublic inline fun UShort.rotateLeft(bitCount:
Int): UShort = toShort().rotateLeft(bitCount).toUShort()\n\n/**\n * Rotates the binary representation of this
[UShort] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the
right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a
negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) ==
number.rotateLeft(n)`\n
*\n * Rotating by a multiple of [UShort.SIZE_BITS] (16) returns the same number, or more generally\n *
`number.rotateRight(n) == number.rotateRight(n % 16)`\n
*/^@SinceKotlin("1.6")@WasExperimental(ExperimentalStdlibApi::class,
ExperimentalUnsignedTypes::class)@kotlin.internal.InlineOnly\npublic inline fun UShort.rotateRight(bitCount:
Int): UShort = toShort().rotateRight(bitCount).toUShort()\n\n"/**\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n */^@package kotlin.internal\n// (a - b) mod c\nprivate fun
differenceModulo(a: UInt, b: UInt, c: UInt): UInt {\n    val ac = a % c\n    val bc = b % c\n    return if (ac >= bc) ac -
bc else ac - bc + c\n}\nprivate fun differenceModulo(a: ULong, b: ULong, c: ULong): ULong {\n    val ac = a %
c\n    val bc = b % c\n    return if (ac >= bc) ac - bc else ac - bc + c\n}\n\n/**\n * Calculates the final element of a bounded arithmetic progression, i.e. the last element of the progression which is
in the range\n * from [start] to [end] in case of a positive [step], or from [end] to [start] in case of a negative\n *
[step].\n * No validation on passed parameters is performed. The given parameters should satisfy the
condition:\n * - either `step > 0` and `start <= end`,\n * - or `step < 0` and `start >= end`.\n * @param start
first element of the progression\n * @param end ending bound for the progression\n * @param step increment, or
difference of successive elements in the progression\n * @return the final element of the progression\n *
@suppress\n */^@PublishedApi\n@SinceKotlin("1.3")\ninternal fun getProgressionLastElement(start: UInt, end:
UInt, step: Int): UInt = when {\n    step > 0 -> if (start >= end) end else end - differenceModulo(end, start,
step.toUInt())\n    step < 0 -> if (start <= end) end else end + differenceModulo(start,
end, (-step).toUInt())\n    else -> throw kotlin.IllegalArgumentException("Step is zero.")\n}\n\n/**\n * Calculates
the final element of a bounded arithmetic progression, i.e. the last element of the progression which is in the range\n
* from [start] to [end] in case of a positive [step], or from [end] to [start] in case of a negative\n * [step].\n *
No validation on passed parameters is performed. The given parameters should satisfy the condition:\n * - either
`step > 0` and `start <= end`,\n * - or `step < 0` and `start >= end`.\n * @param start first element of the
progression\n * @param end ending bound for the progression\n * @param step increment, or difference of
successive elements in the progression\n * @return the final element of the progression\n * @suppress\n
*/^@PublishedApi\n@SinceKotlin("1.3")\ninternal fun getProgressionLastElement(start: ULong, end: ULong,
step: Long): ULong = when {\n    step > 0 -> if (start >= end) end else end - differenceModulo(end,
start, step.toULong())\n    step < 0 -> if (start <= end) end else end + differenceModulo(start, end, (-
step).toULong())\n    else -> throw kotlin.IllegalArgumentException("Step is zero.")\n}\n\n"/**\n * Copyright 2010-
2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/^@file:kotlin.jvm.JvmName("UStringsKt") // string representation of unsigned numbers\n\npackage

```



```

kotlin.text\n\n/**\n * Returns a string representation of this [Byte] value in the specified [radix].\n *\n * @throws
IllegalArgument Exception when [radix] is not a valid radix for number to string conversion.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n//@kotlin.internal.InlineOnly
\npublic /*inline*/ fun UByte.toString(radix: Int): String = this.toInt().toString(radix)\n\n/**\n * Returns a string
representation of this [Short] value in the specified
[radix].\n *\n * @throws IllegalArgument Exception when [radix] is not a valid radix for number to string
conversion.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n//@kotlin.internal.InlineOnly
\npublic /*inline*/ fun UShort.toString(radix: Int): String = this.toInt().toString(radix)\n\n\n/**\n * Returns a string
representation of this [Int] value in the specified [radix].\n *\n * @throws IllegalArgument Exception when [radix] is
not a valid radix for number to string conversion.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n//@kotlin.internal.InlineOnly
\npublic /*inline*/ fun UInt.toString(radix: Int): String = this.toLong().toString(radix)\n\n\n/**\n * Returns a string
representation of this [Long] value in the specified [radix].\n *\n * @throws IllegalArgument Exception when [radix]
is not a valid radix for number to string conversion.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n\npublic
fun ULong.toString(radix: Int): String = ulongToString(this.toLong(), checkRadix(radix))\n\n\n/**\n * Parses the
string as a signed [UByte] number and returns the result.\n *\n * @throws NumberFormatException if the string is not a
valid representation of a number.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n\npublic fun String.toUByte():
UByte = toUByteOrNull() ?: numberFormatError(this)\n\n\n/**\n * Parses the string as a signed [UByte] number and
returns the result.\n *\n * @throws NumberFormatException if the string is not a valid representation of a number.\n
*\n * @throws IllegalArgument Exception when [radix] is not a valid radix for string to number conversion.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n\npublic fun
String.toUByte(radix: Int): UByte = toUByteOrNull(radix) ?: numberFormatError(this)\n\n\n/**\n * Parses the
string as a [UShort] number and returns the result.\n *\n * @throws NumberFormatException if the
string is not a valid representation of a number.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n\npublic fun String.toUShort():
UShort = toUShortOrNull() ?: numberFormatError(this)\n\n\n/**\n * Parses the string as a [UShort] number and
returns the result.\n *\n * @throws NumberFormatException if the string is not a valid representation of a number.\n
*\n * @throws IllegalArgument Exception when [radix] is not a valid radix for string to number conversion.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n\npublic fun
String.toUShort(radix: Int): UShort = toUShortOrNull(radix) ?: numberFormatError(this)\n\n\n/**\n * Parses the
string as an [UInt] number and returns the result.\n *\n * @throws NumberFormatException if the string is not a valid
representation of a number.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n\npublic fun String.toUInt():
UInt = toUIntOrNull() ?: numberFormatError(this)\n\n\n/**\n * Parses
the string as an [UInt] number and returns the result.\n *\n * @throws NumberFormatException if the string is not a
valid representation of a number.\n *\n * @throws IllegalArgument Exception when [radix] is not a valid radix for string
to number conversion.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n\npublic fun
String.toUInt(radix: Int): UInt = toUIntOrNull(radix) ?: numberFormatError(this)\n\n\n/**\n * Parses the string as a
[ULong] number and returns the result.\n *\n * @throws NumberFormatException if the string is not a valid
representation of a number.\n
*\n@SinceKotlin("1.5")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n\npublic fun String.toULong():
ULong = toULongOrNull() ?: numberFormatError(this)\n\n\n/**\n * Parses the string as a [ULong] number and
returns the result.\n *\n * @throws NumberFormatException if the string is not a valid representation of a number.\n
*\n * @throws IllegalArgument Exception when [radix] is not a valid radix for string to

```



```

digit = digitOf(this[i], radix)\n\n    if (digit < 0) return null\n    if (result > limitBeforeMul) {\n        if
(limitBeforeMul
    == limitForMaxRadix) {\n        limitBeforeMul = limit / uradix\n        if (result > limitBeforeMul) {\n
return null\n        }\n        } else {\n        return null\n        }\n    }\n    result *=
uradix\n    val beforeAdding = result\n    result += digit.toUInt()\n    if (result < beforeAdding) return null
// overflow has happened\n    }\n    return result\n}\n", "/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n */\n\n@file:Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\npackage kotlin\nimport kotlin.annotation.AnnotationTarget.*\nimport
kotlin.internal.RequireKotlin\nimport kotlin.internal.RequireKotlinVersionKind\n\n/**\n * Marks the API that is
dependent on the experimental unsigned types, including those types themselves.\n
*\n * Usages of such API will be reported as warnings unless an explicit opt-in with\n * the [OptIn] annotation, e.g.
`@OptIn(ExperimentalUnsignedTypes::class)`,\n * or with the `opt-in=kotlin.ExperimentalUnsignedTypes`
compiler option is given.\n * It's recommended to propagate the experimental status to the API that depends on
unsigned types by annotating it with this annotation.\n */\n@RequiresOptIn(level =
RequiresOptIn.Level.WARNING)\n@MustBeDocumented\n@Target(CLASS, ANNOTATION_CLASS,
PROPERTY, FIELD, LOCAL_VARIABLE, VALUE_PARAMETER, CONSTRUCTOR, FUNCTION,
PROPERTY_GETTER, PROPERTY_SETTER,
TYPEALIAS)\n@Retention(AnnotationRetention.BINARY)\npublic annotation class
ExperimentalUnsignedTypes\n", "/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n
*\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("MathKt")\n\npackage
kotlin.math\n\n\n// constants, can't use them from nativeMath as they are not constants there\n\n/** Ratio of the
circumference of a circle to its diameter, approximately 3.14159. *\n@SinceKotlin("1.2")\npublic const val PI:
Double = 3.141592653589793\n** Base of the natural logarithms, approximately 2.71828.
*\n@SinceKotlin("1.2")\npublic const val E: Double = 2.718281828459045\n\n// region =====
Double Math =====\n\n** Computes the sine of the angle [x]
given in radians.\n * \n * Special cases:\n * - `sin(NaN|+Inf|-Inf)` is `NaN`\n *\n@SinceKotlin("1.2")\npublic
expect fun sin(x: Double): Double\n\n** Computes the cosine of the angle [x] given in radians.\n * \n * Special
cases:\n * - `cos(NaN|+Inf|-Inf)` is `NaN`\n *\n@SinceKotlin("1.2")\npublic expect fun cos(x: Double):
Double\n\n** Computes the tangent of the angle [x] given in radians.\n * \n * Special cases:\n * - `tan(NaN|+Inf|-
Inf)` is
`NaN`\n *\n@SinceKotlin("1.2")\npublic expect fun tan(x: Double): Double\n\n**\n * Computes the arc sine of
the value [x];\n * the returned value is an angle in the range from `-PI/2` to `PI/2` radians.\n * \n * Special
cases:\n * - `asin(x)` is `NaN`, when `abs(x) > 1` or x is `NaN`\n *\n@SinceKotlin("1.2")\npublic expect fun
asin(x: Double): Double\n\n**\n * Computes the arc cosine of the value [x];\n * the returned value is an angle in
the range from `0.0` to `PI` radians.\n * \n * Special cases:\n * - `acos(x)` is `NaN`, when `abs(x) > 1` or x
is `NaN`\n *\n@SinceKotlin("1.2")\npublic expect fun acos(x: Double): Double\n\n**\n * Computes the arc tangent
of the value [x];\n * the returned value is an angle in the range from `-PI/2` to `PI/2` radians.\n * \n * Special
cases:\n * - `atan(NaN)` is `NaN`\n *\n@SinceKotlin("1.2")\npublic expect fun atan(x: Double): Double\n\n**\n *
Returns the angle `theta` of the polar coordinates `(r, theta)` that correspond\n * to
the rectangular coordinates `(x, y)` by computing the arc tangent of the value [y] / [x];\n * the returned value is
an angle in the range from `-PI` to `PI` radians.\n * \n * Special cases:\n * - `atan2(0.0, 0.0)` is `0.0`\n * -
`atan2(0.0, x)` is `0.0` for `x > 0` and `PI` for `x < 0`\n * - `atan2(-0.0, x)` is `-0.0` for `x > 0` and
`-PI` for `x < 0`\n * - `atan2(y, +Inf)` is `0.0` for `0 < y < +Inf` and `-0.0` for `-Inf < y < 0`\n * -
`atan2(y, -Inf)` is `PI` for `0 < y < +Inf`
and `-PI` for `-Inf < y < 0`\n * - `atan2(y, 0.0)` is `PI/2` for `y > 0` and `-PI/2` for `y < 0`\n * -
`atan2(+Inf, x)` is `PI/2` for finite `x`\n * - `atan2(-Inf, x)` is `-PI/2` for finite `x`\n * - `atan2(NaN, x)`
and `atan2(y, NaN)` is

```

`NaN` \* Since Kotlin("1.2")\npublic expect fun atan2(y: Double, x: Double): Double\n\n \* Computes the hyperbolic sine of the value [x].\n \* Special cases:\n \* - `sinh(NaN)` is `NaN`\n \* - `sinh(+Inf)` is `+Inf`\n \* - `sinh(-Inf)` is `-Inf`\n

`sinh(x: Double): Double`\n\n \* Computes the hyperbolic cosine of the value [x].\n \* Special cases:\n \* - `cosh(NaN)` is `NaN`\n \* - `cosh(+Inf|-Inf)` is `+Inf`\n

`cosh(x: Double): Double`\n\n \* Computes the hyperbolic tangent of the value [x].\n \* Special cases:\n \* - `tanh(NaN)` is `NaN`\n \* - `tanh(+Inf)` is `1.0`\n \* - `tanh(-Inf)` is `-1.0`\n

`tanh(x: Double): Double`\n\n \* Computes the inverse hyperbolic sine of the value [x].\n \* The returned value is `y` such that `sinh(y) == x`.\n \* Special cases:\n \* - `asinh(NaN)` is `NaN`\n \* - `asinh(+Inf)` is `+Inf`\n \* - `asinh(-Inf)` is `-Inf`\n

`asinh(x: Double): Double`\n\n \* Computes the inverse hyperbolic cosine of the value [x].\n \* The returned value is positive `y` such that `cosh(y) == x`.\n \* Special cases:\n \* - `acosh(NaN)` is `NaN`\n \* - `acosh(x)` is `NaN` when `x < 1`\n \* - `acosh(+Inf)` is `+Inf`\n

`acosh(x: Double): Double`\n\n \* Computes the inverse hyperbolic tangent of the value [x].\n \* The returned value is `y` such that `tanh(y) == x`.\n \* Special cases:\n \* - `tanh(NaN)` is `NaN`\n \* - `tanh(x)` is `NaN` when `x > 1` or `x < -1`\n \* - `tanh(1.0)` is `+Inf`\n \* - `tanh(-1.0)` is `-Inf`\n

`atanh(x: Double): Double`\n\n \* Computes `sqrt(x^2 + y^2)` without intermediate overflow or underflow.\n \* Special cases:\n \* - returns `+Inf` if any of arguments is infinite\n \* - returns `NaN` if any of arguments is `NaN` and the other is not infinite\n

`hypot(x: Double, y: Double): Double`\n\n \* Computes the positive square root of the value [x].\n \* Special cases:\n \* - `sqrt(x)` is `NaN` when `x < 0` or `x` is `NaN`\n

`sqrt(x: Double): Double`\n\n \* Computes Euler's number `e` raised to the power of the value [x].\n \* Special cases:\n \* - `exp(NaN)` is `NaN`\n \* - `exp(+Inf)` is `+Inf`\n \* - `exp(-Inf)` is `0.0`\n

`exp(x: Double): Double`\n\n \* Computes `exp(x) - 1`.\n \* This function can be implemented to produce more precise result for [x] near zero.\n \* Special cases:\n \* - `expm1(NaN)` is `NaN`\n \* - `expm1(+Inf)` is `+Inf`\n \* - `expm1(-Inf)` is `-1.0`\n \* @see [exp] function.\n

`expm1(x: Double): Double`\n\n \* Computes the logarithm of the value [x] to the given [base].\n \* Special cases:\n \* - `log(x, b)` is `NaN` if either `x` or `b` are `NaN`\n \* - `log(x, b)` is `NaN` when `x < 0` or `b <= 0` or `b == 1.0`\n \* - `log(+Inf, +Inf)` is `NaN`\n \* - `log(+Inf, b)` is `+Inf` for `b > 1` and `-Inf` for `b < 1`\n \* - `log(0.0, b)` is `-Inf` for `b > 1` and `+Inf` for `b > 1`\n \* See also logarithm functions for common fixed bases: [ln], [log10] and [log2].\n

`log(x: Double, base: Double): Double`\n\n \* Computes the natural logarithm (base `E`) of the value [x].\n \* Special cases:\n \* - `ln(NaN)` is `NaN`\n \* - `ln(x)` is `NaN` when `x < 0.0`\n \* - `ln(+Inf)` is `+Inf`\n \* - `ln(0.0)` is `-Inf`\n

`ln(x: Double): Double`\n\n \* Computes the common logarithm (base 10) of the value [x].\n \* @see [ln] function for special cases.\n

`log10(x: Double): Double`\n\n \* Computes the binary logarithm (base 2) of the value [x].\n \* @see [ln] function for special cases.\n

`log2(x: Double): Double`\n\n \* Computes `ln(x + 1)`.\n \* This function can be implemented to produce more precise result for [x] near zero.\n \* Special cases:\n \* - `ln1p(NaN)` is `NaN`\n \* - `ln1p(x)` is `NaN` where `x < -1.0`\n \* - `ln1p(-1.0)` is `-Inf`\n \* - `ln1p(+Inf)` is `+Inf`\n \* @see [ln] function\n \* @see [expm1] function\n

`ln1p(x: Double): Double`\n\n \* Rounds the given value [x] to an integer towards positive infinity.\n \* @return the smallest double value that is greater than or equal to the given value [x] and is a mathematical integer.\n \* Special cases:\n \* - `ceil(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n

`ceil(x: Double): Double`\n\n \* Rounds the given value [x] to an integer towards negative infinity.\n \* @return the largest double value that is smaller than or equal to the given value [x] and is a mathematical integer.\n \* Special cases:\n \* - `floor(x)` is `x` where `x` is `NaN` or `+Inf` or

`-Inf` or already a mathematical integer.  
`fun floor(x: Double): Double`  
 Rounds the given value [x] to an integer towards zero.  
 Special cases: `truncate(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.  
`fun truncate(x: Double): Double`  
 Rounds the given value [x] towards the closest integer with ties rounded towards even integer.  
 Special cases: `round(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.  
`fun round(x: Double): Double`  
 Returns the absolute value of the given value [x].  
 Special cases: `abs(NaN)` is `NaN`.  
 @see `absoluteValue` extension property for `[Double]`.  
`fun abs(x: Double): Double`  
 Returns the sign of the given value [x]: `-1.0` if the value is negative, `0` if the value is zero, `1.0` if the value is positive.  
 Special case: `sign(NaN)` is `NaN`.  
`fun sign(x: Double): Double`  
 Returns the smaller of two values.  
 If either value is `NaN`, then the result is `NaN`.  
`fun min(a: Double, b: Double): Double`  
 Returns the greater of two values.  
 If either value is `NaN`, then the result is `NaN`.  
`fun max(a: Double, b: Double): Double`  
 Returns the cube root of [x]. For any `x`, `cbrt(-x) == -cbrt(x)`; that is, the cube root of a negative value is the negative of the cube root of that value's magnitude.  
 Special cases:  
 - If the argument is `NaN`, then the result is `NaN`.  
 - If the argument is infinite, then the result is an infinity with the same sign as the argument.  
 - If the argument is zero, then the result is a zero with the same sign as the argument.  
`fun cbrt(x: Double): Double`  
 Raises this value to the power [x].  
 Special cases:  
 - `b.pow(0.0)` is `1.0`.  
 - `b.pow(1.0) == b`.  
 - `b.pow(NaN)` is `NaN`.  
 - `NaN.pow(x)` is `NaN` for `x != 0.0`.  
 - `b.pow(Inf)` is `NaN` for `abs(b) == 1.0`.  
 - `b.pow(x)` is `NaN` for `b < 0` and `x` is finite and not an integer.  
`fun Double.pow(x: Double): Double`  
 Raises this value to the integer power [n].  
 See the other overload of `[pow]` for details.  
`fun Double.pow(n: Int): Double`  
 Returns the absolute value of this value.  
 Special cases:  
 - `NaN.absoluteValue` is `NaN`.  
 @see `abs` function.  
`fun Double.absoluteValue: Double`  
 Returns the sign of this value: `-1.0` if the value is negative, `0` if the value is zero, `1.0` if the value is positive.  
 Special case: `NaN.sign` is `NaN`.  
`fun Double.sign: Double`  
 Returns this value with the sign bit same as of the [sign] value.  
 If [sign] is `NaN` the sign of the result is undefined.  
`fun Double.withSign(sign: Double): Double`  
 Returns this value with the sign bit same as of the [sign] value.  
`fun Double.withSign(sign: Int): Double`  
 Returns the ulp (unit in the last place) of this value.  
 An ulp is a positive distance between this value and the next nearest [Double] value larger in magnitude.  
 Special Cases:  
 - `NaN.ulp` is `NaN`.  
 - `x.ulp` is `+Inf` when `x` is `+Inf` or `-Inf`.  
 - `0.0.ulp` is `Double.MIN_VALUE`.  
`fun Double.ulp: Double`  
 Returns the [Double] value nearest to this value in direction of positive infinity.  
`fun Double.nextUp(): Double`  
 Returns the [Double] value nearest to this value in direction of negative infinity.  
`fun Double.nextDown(): Double`  
 Returns the [Double] value nearest to this value in direction from this value towards the value [to].  
 Special cases:  
 - `x.nextTowards(y)` is `NaN` if either `x` or `y` are `NaN`.  
 - `x.nextTowards(x) == x`.  
`fun Double.nextTowards(to: Double): Double`  
 Rounds this [Double] value to the nearest integer and converts the result to [Int].  
 Ties are rounded towards positive infinity.  
 Special cases:  
 - `x.roundToInt() == Int.MAX_VALUE` when `x > Int.MAX_VALUE`.  
 - `x.roundToInt() == Int.MIN_VALUE` when `x < Int.MIN_VALUE`.  
 @throws `IllegalArgumentException` when this value is `NaN`.  
`fun Double.roundToInt(): Int`

Double.roundToInt(): Int\n\n\*\*\n \* Rounds this [Double] value to the nearest integer and converts the result to [Long].\n \* Ties are rounded towards positive infinity.\n \* Special cases:\n \* - `x.roundToLong() == Long.MAX\_VALUE` when `x > Long.MAX\_VALUE`\n \* - `x.roundToLong() == Long.MIN\_VALUE` when `x < Long.MIN\_VALUE`\n \* @throws IllegalArgumentException when this value is `NaN`\n \*^n@SinceKotlin("1.2")\npublic expect fun Double.roundToLong(): Long\n\n// endregion\n\n// region\n\n===== Float Math =====\n\n\*\* Computes the sine of the angle [x] given in radians.\n \* Special cases:\n \* - `sin(NaN|+Inf|-Inf)` is `NaN`\n \*^n@SinceKotlin("1.2")\npublic expect fun sin(x: Float): Float\n\n\*\* Computes the cosine of the angle [x] given in radians.\n \* Special cases:\n \* - `cos(NaN|+Inf|-Inf)` is `NaN`\n \*^n@SinceKotlin("1.2")\npublic expect fun cos(x: Float): Float\n\n\*\* Computes the tangent of the angle [x] given in radians.\n \* Special cases:\n \* - `tan(NaN|+Inf|-Inf)` is `NaN`\n \*^n@SinceKotlin("1.2")\npublic expect fun tan(x: Float): Float\n\n\*\* Computes the arc sine of the value [x];\n \* the returned value is an angle in the range from  $-\pi/2$  to  $\pi/2$  radians.\n \* Special cases:\n \* - `asin(x)` is `NaN`, when  $abs(x) > 1$  or x is `NaN`\n \*^n@SinceKotlin("1.2")\npublic expect fun asin(x: Float): Float\n\n\*\* Computes the arc cosine of the value [x];\n \* the returned value is an angle in the range from  $0.0$  to  $\pi$  radians.\n \* Special cases:\n \* - `acos(x)` is `NaN`, when  $abs(x) > 1$  or x is `NaN`\n \*^n@SinceKotlin("1.2")\npublic expect fun acos(x: Float): Float\n\n\*\* Computes the arc tangent of the value [x];\n \* the returned value is an angle in the range from  $-\pi/2$  to  $\pi/2$  radians.\n \* Special cases:\n \* - `atan(NaN)` is `NaN`\n \*^n@SinceKotlin("1.2")\npublic expect fun atan(x: Float): Float\n\n\*\* Returns the angle `theta` of the polar coordinates `(r, theta)` that correspond\n \* to the rectangular coordinates `(x, y)` by computing the arc tangent of the value  $y / x$ ;\n \* the returned value is an angle in the range from  $-\pi$  to  $\pi$  radians.\n \* Special cases:\n \* - `atan2(0.0, 0.0)` is  $0.0$ \n \* - `atan2(0.0, x)` is  $0.0$  for  $x > 0$  and  $\pi$  for  $x < 0$ \n \* - `atan2(-0.0, x)` is  $-0.0$  for  $x > 0$  and  $-\pi$  for  $x < 0$ \n \* - `atan2(y, +Inf)` is  $0.0$  for  $0 < y < +Inf$  and  $-0.0$  for  $-\infty < y < 0$ \n \* - `atan2(y, -Inf)` is  $\pi$  for  $0 < y < +Inf$  and  $-\pi$  for  $-\infty < y < 0$ \n \* - `atan2(y, 0.0)` is  $\pi/2$  for  $y > 0$  and  $-\pi/2$  for  $y < 0$ \n \* - `atan2(+Inf, x)` is  $\pi/2$  for finite  $x \neq 0$ \n \* - `atan2(-Inf, x)` is  $-\pi/2$  for finite  $x \neq 0$ \n \* - `atan2(NaN, x)` and `atan2(y, NaN)` is `NaN`\n \*^n@SinceKotlin("1.2")\npublic expect fun atan2(y: Float, x: Float): Float\n\n\*\* Computes the hyperbolic sine of the value [x].\n \* Special cases:\n \* - `sinh(NaN)` is `NaN`\n \* - `sinh(+Inf)` is  $+\infty$ \n \* - `sinh(-Inf)` is  $-\infty$ \n \*^n@SinceKotlin("1.2")\npublic expect fun sinh(x: Float): Float\n\n\*\* Computes the hyperbolic cosine of the value [x].\n \* Special cases:\n \* - `cosh(NaN)` is `NaN`\n \* - `cosh(+Inf|-Inf)` is  $+\infty$ \n \*^n@SinceKotlin("1.2")\npublic expect fun cosh(x: Float): Float\n\n\*\* Computes the hyperbolic tangent of the value [x].\n \* Special cases:\n \* - `tanh(NaN)` is `NaN`\n \* - `tanh(+Inf)` is  $1.0$ \n \* - `tanh(-Inf)` is  $-1.0$ \n \*^n@SinceKotlin("1.2")\npublic expect fun tanh(x: Float): Float\n\n\*\* Computes the inverse hyperbolic sine of the value [x].\n \* The returned value is `y` such that  $\sinh(y) == x$ .\n \* Special cases:\n \* - `asinh(NaN)` is `NaN`\n \* - `asinh(+Inf)` is  $+\infty$ \n \* - `asinh(-Inf)` is  $-\infty$ \n \*^n@SinceKotlin("1.2")\npublic expect fun asinh(x: Float): Float\n\n\*\* Computes the inverse hyperbolic cosine of the value [x].\n \* The returned value is positive `y` such that  $\cosh(y) == x$ .\n \* Special cases:\n \* - `acosh(NaN)` is `NaN`\n \* - `acosh(x)` is `NaN` when  $x < 1$ \n \* - `acosh(+Inf)` is  $+\infty$ \n \*^n@SinceKotlin("1.2")\npublic expect fun acosh(x: Float): Float\n\n\*\* Computes the inverse hyperbolic tangent of the value [x].\n \* The returned value is `y` such that  $\tanh(y) == x$ .\n \* Special cases:\n \* - `tanh(NaN)` is `NaN`\n \* - `tanh(x)` is `NaN` when  $x > 1$  or  $x < -1$ \n \* - `tanh(1.0)` is  $+\infty$ \n \* - `tanh(-1.0)` is  $-\infty$ \n \*^n@SinceKotlin("1.2")\npublic expect fun atanh(x: Float): Float\n\n\*\* Computes  $\sqrt{x^2 + y^2}$  without intermediate overflow or underflow.\n \* Special cases:\n \* - returns  $+\infty$  if any of arguments is infinite\n \* - returns `NaN` if any of arguments is `NaN` and the other is not infinite\n \*^n@SinceKotlin("1.2")\npublic expect fun hypot(x: Float, y: Float): Float\n\n\*\* Computes the positive square root of the value [x].\n \* Special cases:\n \* - `sqrt(x)` is `NaN` when  $x < 0$  or `x` is `NaN`\n \*^n@SinceKotlin("1.2")\npublic expect fun sqrt(x: Float): Float\n\n\*\* Computes Euler's number `e` raised to the power of the value [x].\n \* Special cases:\n \* -

`exp(NaN)` is `NaN` \* `-exp(+Inf)` is `+Inf` \* `-exp(-Inf)` is `0.0` \* `^` \* `@SinceKotlin("1.2")` \* `public expect fun exp(x: Float): Float` \* `Computes exp(x) - 1` \* `This function can be implemented to produce more precise result for [x] near zero` \* `Special cases:` \* `-expm1(NaN)` is `NaN` \* `-expm1(+Inf)` is `+Inf` \* `-expm1(-Inf)` is `-1.0` \* `@see [exp] function` \* `^` \* `@SinceKotlin("1.2")` \* `public expect fun expm1(x: Float): Float` \* `Computes the logarithm of the value [x] to the given [base]` \* `Special cases:` \* `-log(x, b)` is `NaN` if either `x` or `b` are `NaN` \* `-log(x, b)` is `NaN` when `x < 0` or `b <= 0` or `b == 1.0` \* `-log(+Inf, +Inf)` is `NaN` \* `-log(+Inf, b)` is `+Inf` for `b > 1` and `-Inf` for `b < 1` \* `-log(0.0, b)` is `-Inf` for `b > 1` and `+Inf` for `b > 1` \* `See also logarithm functions for common fixed bases: [ln], [log10] and [log2]` \* `^` \* `@SinceKotlin("1.2")` \* `public expect fun log(x: Float, base: Float): Float` \* `Computes the natural logarithm (base E) of the value [x]` \* `Special cases:` \* `-ln(NaN)` is `NaN` \* `-ln(x)` is `NaN` when `x < 0.0` \* `-ln(+Inf)` is `+Inf` \* `-ln(0.0)` is `-Inf` \* `^` \* `@SinceKotlin("1.2")` \* `public expect fun ln(x: Float): Float` \* `Computes the common logarithm (base 10) of the value [x]` \* `@see [ln] function for special cases` \* `^` \* `@SinceKotlin("1.2")` \* `public expect fun log10(x: Float): Float` \* `Computes the binary logarithm (base 2) of the value [x]` \* `@see [ln] function for special cases` \* `^` \* `@SinceKotlin("1.2")` \* `public expect fun log2(x: Float): Float` \* `Computes ln(x + 1)` \* `This function can be implemented to produce more precise result for [x] near zero` \* `Special cases:` \* `-ln1p(NaN)` is `NaN` \* `-ln1p(x)` is `NaN` where `x < -1.0` \* `-ln1p(-1.0)` is `-Inf` \* `-ln1p(+Inf)` is `+Inf` \* `@see [ln] function` \* `@see [expm1] function` \* `^` \* `@SinceKotlin("1.2")` \* `public expect fun ln1p(x: Float): Float` \* `Rounds the given value [x] to an integer towards positive infinity` \* `@return the smallest Float value that is greater than or equal to the given value [x] and is a mathematical integer` \* `Special cases:` \* `-ceil(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer \* `^` \* `@SinceKotlin("1.2")` \* `public expect fun ceil(x: Float): Float` \* `Rounds the given value [x] to an integer towards negative infinity` \* `@return the largest Float value that is smaller than or equal to the given value [x] and is a mathematical integer` \* `Special cases:` \* `-floor(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer \* `^` \* `@SinceKotlin("1.2")` \* `public expect fun floor(x: Float): Float` \* `Rounds the given value [x] to an integer towards zero` \* `@return the value [x] having its fractional part truncated` \* `Special cases:` \* `-truncate(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer \* `^` \* `@SinceKotlin("1.2")` \* `public expect fun truncate(x: Float): Float` \* `Rounds the given value [x] towards the closest integer with ties rounded towards even integer` \* `Special cases:` \* `-round(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer \* `^` \* `@SinceKotlin("1.2")` \* `public expect fun round(x: Float): Float` \* `Returns the absolute value of the given value [x]` \* `Special cases:` \* `-abs(NaN)` is `NaN` \* `@see absoluteValue extension property for [Float]` \* `^` \* `@SinceKotlin("1.2")` \* `public expect fun abs(x: Float): Float` \* `Returns the sign of the given value [x]:` \* `-1.0` if the value is negative, \* `0` if the value is zero, \* `1.0` if the value is positive \* `Special case:` \* `-sign(NaN)` is `NaN` \* `^` \* `@SinceKotlin("1.2")` \* `public expect fun sign(x: Float): Float` \* `Returns the smaller of two values` \* `If either value is NaN, then the result is NaN` \* `^` \* `@SinceKotlin("1.2")` \* `public expect fun min(a: Float, b: Float): Float` \* `Returns the greater of two values` \* `If either value is NaN, then the result is NaN` \* `^` \* `@SinceKotlin("1.2")` \* `public expect fun max(a: Float, b: Float): Float` \* `Returns the cube root of [x]. For any x, cbrt(-x) == -cbrt(x); that is, the cube root of a negative value is the negative of the cube root of that value's magnitude` \* `Special cases:` \* `- If the argument is NaN, then the result is NaN` \* `- If the argument is infinite, then the result is an infinity with the same sign as the argument` \* `- If the argument is zero, then the result is a zero with the same sign as the argument` \* `^` \* `@SinceKotlin("1.8")` \* `@WasExperimental(ExperimentalStdlibApi::class)` \* `public expect fun cbrt(x: Float): Float` \* `// extensions` \* `Raises this value to the power [x]` \* `Special cases:` \* `-b.pow(0.0)` is `1.0` \* `-b.pow(1.0) == b` \* `-b.pow(NaN)` is `NaN` \* `-NaN.pow(x)` is `NaN` for `x !=`

`0.0` \* - `b.pow(Inf)` is `NaN` for `abs(b) == 1.0` \* - `b.pow(x)` is `NaN` for `b < 0` and `x` is finite and not an integer \* `@SinceKotlin("1.2")` \* `public expect fun Float.pow(x: Float): Float` \* Raises this value to the integer power [n]. \* See the other overload of `[pow]` for details. \* `@SinceKotlin("1.2")` \* `public expect fun Float.pow(n: Int): Float` \* Returns the absolute value of this value. \* Special cases: \* - `NaN.absoluteValue` is `NaN` \* - `@see abs function` \* `@SinceKotlin("1.2")` \* `public expect val Float.absoluteValue: Float` \* Returns the sign of this value: \* - `-1.0` if the value is negative, \* - zero if the value is zero, \* - `1.0` if the value is positive \* Special case: \* - `NaN.sign` is `NaN` \* `@SinceKotlin("1.2")` \* `public expect val Float.sign: Float` \* Returns this value with the sign bit same as of the [sign] value. \* If [sign] is `NaN` the sign of the result is undefined. \* `@SinceKotlin("1.2")` \* `public expect fun Float.withSign(sign: Float): Float` \* Returns this value with the sign bit same as of the [sign] value. \* `@SinceKotlin("1.2")` \* `public expect fun Float.withSign(sign: Int): Float` \* Rounds this [Float] value to the nearest integer and converts the result to [Int]. \* Ties are rounded towards positive infinity. \* Special cases: \* - `x.roundToInt() == Int.MAX_VALUE` when `x > Int.MAX_VALUE` \* - `x.roundToInt() == Int.MIN_VALUE` when `x < Int.MIN_VALUE` \* \* `@throws IllegalArgumentException` when this value is `NaN` \* `@SinceKotlin("1.2")` \* `public expect fun Float.roundToInt(): Int` \* Rounds this [Float] value to the nearest integer and converts the result to [Long]. \* Ties are rounded towards positive infinity. \* Special cases: \* - `x.roundToLong() == Long.MAX_VALUE` when `x > Long.MAX_VALUE` \* - `x.roundToLong() == Long.MIN_VALUE` when `x < Long.MIN_VALUE` \* \* `@throws IllegalArgumentException` when this value is `NaN` \* `@SinceKotlin("1.2")` \* `public expect fun Float.roundToLong(): Long` \* `endregion` \* `region` \* `Integer Math` \* `abs` \* Returns the absolute value of the given value [n]. \* Special cases: \* - `abs(Int.MIN_VALUE)` is `Int.MIN_VALUE` due to an overflow \* \* `@see absoluteValue extension property for [Int]` \* `@SinceKotlin("1.2")` \* `public expect fun abs(n: Int): Int` \* Returns the smaller of two values. \* `@SinceKotlin("1.2")` \* `public expect fun min(a: Int, b: Int): Int` \* Returns the greater of two values. \* `@SinceKotlin("1.2")` \* `public expect fun max(a: Int, b: Int): Int` \* Returns the absolute value of this value. \* Special cases: \* - `Int.MIN_VALUE.absoluteValue` is `Int.MIN_VALUE` due to an overflow \* \* `@see abs function` \* `@SinceKotlin("1.2")` \* `public expect val Int.absoluteValue: Int` \* Returns the sign of this value: \* - `-1` if the value is negative, \* - `0` if the value is zero, \* - `1` if the value is positive \* `@SinceKotlin("1.2")` \* `public expect val Int.sign: Int` \* Returns the absolute value of the given value [n]. \* Special cases: \* - `abs(Long.MIN_VALUE)` is `Long.MIN_VALUE` due to an overflow \* \* `@see absoluteValue extension property for [Long]` \* `@SinceKotlin("1.2")` \* `public expect fun abs(n: Long): Long` \* Returns the smaller of two values. \* `@SinceKotlin("1.2")` \* `public expect fun min(a: Long, b: Long): Long` \* Returns the greater of two values. \* `@SinceKotlin("1.2")` \* `public expect fun max(a: Long, b: Long): Long` \* Returns the absolute value of this value. \* Special cases: \* - `Long.MIN_VALUE.absoluteValue` is `Long.MIN_VALUE` due to an overflow \* \* `@see abs function` \* `@SinceKotlin("1.2")` \* `public expect val Long.absoluteValue: Long` \* Returns the sign of this value: \* - `-1` if the value is negative, \* - `0` if the value is zero, \* - `1` if the value is positive \* `@SinceKotlin("1.2")` \* `public expect val Long.sign: Int` \* `endregion` \* `"/` \* Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors. \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file. \* `package kotlin.js` \* Exposes the JavaScript [Math object]([https://developer.mozilla.org/en/docs/Web/JavaScript/Reference/Global\\_Objects/Math](https://developer.mozilla.org/en/docs/Web/JavaScript/Reference/Global_Objects/Math)) to Kotlin. \* `@PublishedApi` \* `@JsName("Math")` \* `internal external object JsMath {` \* `val LN2: Double` \* `fun abs(value: Double): Double` \* `fun acos(value: Double): Double` \* `fun asin(value: Double): Double` \* `fun atan(value: Double): Double` \* `fun atan2(y: Double, x: Double): Double` \* `fun cos(value: Double): Double` \* `fun sin(value: Double): Double` \* `fun exp(value: Double): Double` \* `fun max(vararg values: Int): Int` \* `fun`



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max(vararg values: Float): Float\n fun max(vararg values: Double): Double\n fun min(vararg values: Int): Int\n
fun min(vararg values: Float): Float\n fun min(vararg values: Double): Double\n fun sqrt(value: Double):
Double\n fun tan(value:
Double): Double\n fun log(value: Double): Double\n fun cbrt(value: Double): Double\n fun pow(base:
Double, exp: Double): Double\n fun round(value: Number): Double\n fun floor(value: Number): Double\n fun
ceil(value: Number): Double\n}\n\ninternal const val defineTaylorNBound = \"\"\"\n var epsilon =
2.220446049250313E-16;\n var taylor_2_bound = Math.sqrt(epsilon);\n var taylor_n_bound =
Math.sqrt(taylor_2_bound);\n\"\"\"\n\ninternal const val defineUpperTaylor2Bound = \"\"\"\n
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W,qB;;UAK3CO,Q;UAAA,OAAa,SAAR,sBAAQ,CAAb,W;UAAAd,OAAc,cAAAd,C;YAAc,uB;YACV,cAAc,UAAK  
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T,C;YACA,e;;YAEA,c;;UNuoVA,iB;UACA,IAAK,WA1SyD,cA0SrD,CAAe,OAAf,CAAJ,C;;QA1ST,OA4SO,W;  
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,iB;UACA,IAAK,WAAI,OAAJ,C;;QAET,OAAO,W;O;KAdX,C;0FAiBA,yB;MAAA,+D;MAAA,sD;QASoB,Q;Q  
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Ue,WM9+UH,WN8+UwB,GM9+UxB,C;UACL,IAAI,aAAJ,C;YACH,aN4+UuC,gB;YAA5B,WM3+UX,aN2+Ug  
C,GM3+UhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;UNw+UA,iB;UACA,IAAK,WAAI,OAAJ,C;;QAET,OAAO,W;  
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hB,IAtvZO,qBAAQ,CAsvZf,C;YAAe,qBAAO,OAwyBH,OAxyBG,C;YAAP,uB;;UACqB,kBAAvB,eAAa,mBAA  
O,CAAP,IAAb,C;UAA+B,sBAuyBzB,OAvyByB,C;UAA5C,akB16oBO,W;UIB26oBP,kBA5yBmB,O;UAryBnB,i  
D;YAAgB,cAAhB,e;YACI,cAoyBwB,SAPyBV,CAAU,WAAV,EAAuB,OAAvB,C;YACd,MAAO,WAAI,WAAJ,  
C;;UAEX,qBAAO,M;;;QAiyBP,yB;O;KafJ,C;gFAkBA,yB;MAjyBA,gD;MAAA,gE;MAiyBA,gD;QAEW,sB;;UA/  
xBS,Q;UAHhB,IAtwZO,qBAAQ,CAswZf,C;YAAe,qBAAO,OAkyBH,OAlyBG,C;YAAP,uB;;UACqB,kBAAvB,e  
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UA/xBnB,iD;YAAgB,cAAhB,e;YACI,cA8xBwB,SA9xBV,CAAU,WAAV,EAAuB,OAAvB,C;YACd,MAAO,WA  
AI,WAAJ,C;;UAEX,qBAAO,M;;;QA2xBP,yB;O;KafJ,C;gFAkBA,yB;MA3xBA,gD;MAAA,gE;MA2xBA,gD;QA  
eW,sB;;UAzxBS,Q;UAHhB,IAtxZO,qBAAQ,CAsxZf,C;YAAe,qBAAO,OA4xBH,OA5xBG,C;YAAP,uB;;UACqB  
,kBAAvB,eAAa,mBAAO,CAAP,IAAb,C;UAA+B,sBA2xBzB,OA3xByB,C;UAA5C,akB19oBO,W;UIB29oBP,kB  
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d,MAAO,WAAI,WAAJ,C;;UAEX,qBAAO,M;;;QAqxBP,yB;O;KafJ,C;gFAkBA,yB;MARxBA,gD;MAAA,gE;MA  
qxBA,gD;QAEW,sB;;UANxBS,Q;UAHhB,IAtyZO,qBAAQ,CAsyZf,C;YAAe,qBAAO,OAxBH,OAxBG,C;YAAP  
,uB;;UACqB,kBAAvB,eAAa,mBAAO,CAAP,IAAb,C;UAA+B,sBAqxBzB,OArxByB,C;UAA5C,akB1/oBO,W;UI  
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vB,C;YACd,MAAO,WAAI,WAAJ,C;;UAEX,qBAAO,M;;;QA+wBP,yB;O;KafJ,C;gFAkBA,yB;MA/wBA,gD;M

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A/BA,uC;QAOW,kBAaA,eAAa,mCAAwB,EAAXB,CAAb,C;QAGCP,gB;QADb,YAAY,C;QACC,2B;QAAb,OAA  
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B/5FoE,KAAx,IAAf,C;;QkBi6FrD,OAAO,G;O;KAdX,C;mFAiBA,yB;MD/IFA,+B;MC+IFA,sC;QAWoB,Q;QAD  
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yB,MAAM,6B;QAC/B,eAAe,SAAS,QAAS,OAAIB,C;QACf,OAAO,QAAS,UAAhB,C;UACI,QAAQ,SAAS,QAA S,OAAIB,C;UACR,WZ/3CG,MAAO,KY+3CO,QZ/3CP,EY+3CiB,CZ/3CjB,C,;QYi4Cd,OAAO,Q;O;KAtBX,C;IF AyBA,yB;MAAA,sE;MAAA,sC;QAaI,eAAe,oB;QACf,IAAI,CAAC,QAAS,UAAAd,C;UAAyB,MAAM,6B;QAC/B, eAAe,SAAS,QAAS,OAAIB,C;QACf,OAAO,QAAS,UAAhB,C;UACI,QAAQ,SAAS,QAAS,OAAIB,C;UACR,IAA I,2BAAW,CAAX,KAAJ,C;YACI,WAAW,C,;QAGnB,OAAO,Q;O;KAtBX,C;6FAyBA,yB;MZ15CA,iB;MY05CA ,sC;QAaI,eAAe,oB;QACf,IAAI,CAAC,QAAS,UAAAd,C;UAAyB,OAAO,I;QACChC,eAAe,SAAS,QAAS,OAAIB,C; QACf,OAAO,QAAS,UAAhB,C;UACI,QAAQ,SAAS,QAAS,OAAIB,C;UACR,WZp6CG,MAAO,KYo6CO,QZp6 CP,EYo6CiB,CZp6CjB,C,;QYs6Cd,OAAO,Q;O;KApBX,C;6FAuBA,yB;MZ57CA,iB;MY47CA,sC;QAaI,eAAe,o B;QACf,IAAI,CAAC,QAAS,UAAAd,C;UAAyB,OAAO,I;QACChC,eAAe,SAAS,QAAS,OAAIB,C;QACf,OAAO,QA AS,UAAhB,C;UACI,QAAQ,SAAS,QAAS,OAAIB,C;UACR,WZt8CG,MAAO,KYs8CO,QZt8CP,EYs8CiB,CZt8C jB,C,;QYw8Cd,OAAO,Q;O;KApBX,C;6FAuBA,+B;MAWI,eAAe,oB;MACf,IAAI,CAAC,QAAS,UAAAd,C;QAAy B,OAAO,I;MACChC,eAAe,SAAS,QAAS,OAAIB,C;MACf,OAAO,QAAS,UAAhB,C;QACI,QAAQ,SAAS,QAAS, OAAIB,C;QACR,IAAI,2BAAW,CAAX,KAAJ,C;UACI,WAAW,C,;MAGnB,OAAO,Q;K;yFAGX,yB;MAAA,sE; MAAA,kD;QAaI,eAAe,oB;QACf,IAAI,CAAC,QAAS,UAAAd,C;UAAyB,MAAM,6B;QAC/B,eAAe,SAAS,QAAS, OAAIB,C;QACf,OAAO,QAAS,UAAhB,C;UACI,QAAQ,SAAS,QAAS,OAAIB,C;UACR,IAAI,UAAW,SAAQ,QA AR,EAakB,CAaIB,CAAX,GAakC,CAAtC,C;YACI,WAAW,C,;QAGnB,OAAO,Q;O;KAtBX,C;qGAyBA,2C;M AWI,eAAe,oB;MACf,IAAI,CAAC,QAAS,UAAAd,C;QAAyB,OAAO,I;MACChC,eAAe,SAAS,QAAS,OAAIB,C;MA Cf,OAAO,QAAS,UAAhB,C;QACI,QAAQ,SAAS,QAAS,OAAIB,C;QACR,IAAI,UAAW,SAAQ,QAAR,EAakB,C AaIB,CAAX,GAakC,CAAtC,C;UACI,WAAW,C,;MAGnB,OAAO,Q;K;IAGX,iC;MASI,eAAe,oB;MACf,IAAI, CAAC,QAAS,UAAAd,C;QAAyB,OAAO,I;MACChC,UAAU,QAAS,O;MACnB,OAAO,QAAS,UAAhB,C;QACI,QA AQ,QAAS,O;QACjB,MZrhDG,MAAO,KYqhDE,GZrhDF,EYqhDO,CZrhDP,C,;MYuhDd,OAAO,G;K;IAGX,iC; MASI,eAAe,oB;MACf,IAAI,CAAC,QAAS,UAAAd,C;QAAyB,OAAO,I;MACChC,UAAU,QAAS,O;MACnB,OAAO ,QAAS,UAAhB,C;QACI,QAAQ,QAAS,O;QACjB,MZnjDG,MAAO,KYmjDE,GZnjDF,EYmjDO,CZnjDP,C,;MY qjDd,OAAO,G;K;IAGX,iC;MAOI,eAAe,oB;MACf,IAAI,CAAC,QAAS,UAAAd,C;QAAyB,OAAO,I;MACChC,UAA U,QAAS,O;MACnB,OAAO,QAAS,UAAhB,C;QACI,QAAQ,QAAS,O;QACjB,IAAI,sBAAM,CAAN,KAAJ,C;UA Aa,MAAM,C,;MAEvB,OAAO,G;K;IAGX,2C;MAWI,eAAe,oB;MACf,IAAI,CAAC,QAAS,UAAAd,C;QAAyB,MA AM,6B;MAC/B,UAAU,QAAS,O;MACnB,OAAO,QAAS,UAAhB,C;QACI,QAAQ,QAAS,O;QACjB,IAAI,UAA W,SAAQ,GAAR,EAAa,CAAb,CAAX,GAA6B,CAAjC,C;UAAoC,MAAM,C,;MAE9C,OAAO,G;K;IAGX,iD;MA OI,eAAe,oB;MACf,IAAI,CAAC,QAAS,UAAAd,C;QAAyB,OAAO,I;MACChC,UAAU,QAAS,O;MACnB,OAAO,Q AAS,UAAhB,C;QACI,QAAQ,QAAS,O;QACjB,IAAI,UAAW,SAAQ,GAAR,EAAa,CAAb,CAAX,GAA6B,CAAj C,C;UAAoC,MAAM,C,;MAE9C,OAAO,G;K;IAGX,2B;MAaI,eAAe,oB;MACf,IAAI,CAAC,QAAS,UAAAd,C;QA AyB,MAAM,6B;MAC/B,UAAU,QAAS,O;MACnB,OAAO,QAAS,UAAhB,C;QACI,QAAQ,QAAS,O;QACjB,MZ l6CG,MAAO,KYk6CE,GZl6CF,EYk6CO,CZl6CP,C,;MYo6Cd,OAAO,G;K;IAGX,2B;MAaI,eAAe,oB;MACf,IAA I,CAAC,QAAS,UAAAd,C;QAAyB,MAAM,6B;MAC/B,UAAU,QAAS,O;MACnB,OAAO,QAAS,UAAhB,C;QACI, QAAQ,QAAS,O;QACjB,MZp8CG,MAAO,KYo8CE,GZp8CF,EYo8CO,CZp8CP,C,;MYs8Cd,OAAO,G;K;IAGX, 2B;MAWI,eAAe,oB;MACf,IAAI,CAAC,QAAS,UAAAd,C;QAAyB,MAAM,6B;MAC/B,UAAU,QAAS,O;MACnB, OAAO,QAAS,UAAhB,C;QACI,QAAQ,QAAS,O;QACjB,IAAI,sBAAM,CAAN,KAAJ,C;UAAa,MAAM,C,;MAE vB,OAAO,G;K;iFAGX,yB;MAAA,sE;MAAA,sC;QAaI,eAAe,oB;QACf,IAAI,CAAC,QAAS,UAAAd,C;UAAyB,M AAM,6B;QAC/B,cAAc,QAAS,O;QACvB,IAAI,CAAC,QAAS,UAAAd,C;UAAyB,OAAO,O;QACChC,eAAe,SAAS, OAAI,C,;UAEX,QAAQ,QAAS,O;UACjB,QAAQ,SAAS,CAAT,C;UACR,IAAI,2BAAW,CAAX,KAAJ,C;YACI, UAAU,C;YACV,WAAW,C,;QAED,QAAT,QAAS,W;QACIB,OAAO,O;O;KA1BX,C;6FA6BA,+B;MASI,eAAe,o B;MACf,IAAI,CAAC,QAAS,UAAAd,C;QAAyB,OAAO,I;MACChC,cAAc,QAAS,O;MACvB,IAAI,CAAC,QAAS,U AAd,C;QAAyB,OAAO,O;MACChC,eAAe,SAAS,OAAT,C,;QAEX,QAAQ,QAAS,O;QACjB,QAAQ,SAAS,CAAT, C;QACR,IAAI,2BAAW,CAAX,KAAJ,C;UACI,UAAU,C;UACV,WAAW,C,;MAED,QAAT,QAAS,W;MACIB,O AAO,O;K;iFAGX,yB;MAAA,sE;MZjhDA,iB;MYihDA,sC;QAeI,eAAe,oB;QACf,IAAI,CAAC,QAAS,UAAAd,C;U AAyB,MAAM,6B;QAC/B,eAAe,SAAS,QAAS,OAAIB,C;QACf,OAAO,QAAS,UAAhB,C;UACI,QAAQ,SAAS,Q AAS,OAAIB,C;UACR,WZ7hDG,MAAO,KY6hDO,QZ7hDP,EY6hDiB,CZ7hDjB,C,;QY+hDd,OAAO,Q;O;KAtB X,C;iFAyBA,yB;MAAA,sE;MZrjDA,iB;MYqjDA,sC;QAeI,eAAe,oB;QACf,IAAI,CAAC,QAAS,UAAAd,C;UAAy

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,C;;QAEIB,OAAO,W;O;KAtBX,C;4GAYBA,yB;MAAA,wE;MAAA,uC;QAoBmD,Q;QAL/C,eAAe,SAAK,W;QA  
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A,qC;QAOI,OAAO,iBAAM,OAAN,C;O;KAPX,C;IAUA,qC;MAMI,aAAa,qBAAiB,YAAY,iBAAO,CAAP,IAAZ,  
CAAjB,C;MACb,MAAO,gBAAO,SAAP,C;MACP,MAAO,WAAI,OAAJ,C;MACP,OAAO,M;K;IAGX,sC;MAOI,  
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ACA,SAAP,MAAO,EAAO,QAAP,C;MACP,OAAO,M;K;IAGX,sC;MAMuD,UAAAT,M;MAA1C,aAAa,qBAAiB,  
YAAY,WAAS,4BAAT,QAAS,CAAT,YAA4C,cAAL,WAAvC,4BAA2D,SAAK,KAAL,GAAY,CAAZ,IAAvE,CA  
AjB,C;MACb,MAAO,gBAAO,SAAP,C;MACA,OAAP,MAAO,EAAO,QAAP,C;MACP,OAAO,M;K;IAGX,sC;M  
AOI,aAAa,qBAAiB,YAAY,SAAK,KAAL,GAAY,CAAZ,IAAZ,CAAjB,C;MACb,MAAO,gBAAO,SAAP,C;MAC  
A,SAAP,MAAO,EAAO,QAAP,C;MACP,OAAO,M;K;8FAGX,yB;MAAA,4C;MAAA,qC;QAOI,OAAO,gBAAK,  
OAAL,C;O;KAPX,C;InBvHA,oD;MAMuF,wC;K;IANvF,8CAOI,Y;MAAuC,8B;K;IAP3C,gF;ICGA,oD;MAQuF,  
wC;K;IARvF,8CASI,Y;MAAuC,8B;K;IAT3C,gF;gGmBYA,yB;MAAA,uD;MAAA,gC;MAAA,iD;QAOI,OAAW,  
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A,yB;MAAA,+C;MAAA,mC;QAOI,OAAy,UAAAL,SAAK,EAAU,KAAV,C;O;KAPhB,C;0EAUA,yB;MA6EA,6C;  
MAAA,oC;MAAA,gC;MA7EA,uC;QAOW,sB;;UA0ES,Q;UAAA,0B;UAAhB,OAAgB,cAAhB,C;YAAgB,oC;YA  
AM,IA1EH,SA0EO,CAAU,oBAAV,CAAJ,C;cAAwB,qBAAO,O;cAAP,uB;;UAC9C,qBAAO,I;;QA3EP,yB;O;K  
APJ,C;kFAUA,yB;MAyJA,mD;MAAA,+C;MAAA,oC;MAzJA,uC;QAOW,qB;;UAwJO,Q;UAAA,OAAa,SAAR,s  
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BAAV,CAAJ,C;cAAwB,oBAAO,O;cAAP,sB;;UAE5B,oBAAO,I;;QA5JP,wB;O;KAPJ,C;IAUA,6B;MAMI,ICiO  
gD,qBAAU,CDjO1D,C;QACI,MAAM,2BAAuB,yBAAvB,C;MACV,OAAO,qBAAK,CAAL,C;K;4EAGX,yB;MA  
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C;UAAAM,IAAI,UAAU,oBAAV,CAAJ,C;YAAwB,OAAO,O;;QACrD,MAAM,gCAAuB,6DAAvB,C;O;KANV,C;6  
FASA,yB;MAAA,iE;MAYA,6C;MAAA,oC;MAAA,gC;MAZA,uC;QAS8C,IAAnC,I;QAAA,+B;;UAYS,U;UAAA  
,4B;UAAhB,OAAgB,gBAAhB,C;YAAgB,sC;YACZ,aAbwB,SAaX,CAAU,oBAAV,C;YAcB,IAAI,cAAJ,C;cACI,  
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O,I;O;KAFx,C;IAKBA,mC;MAII,OCiLgD,qBAAU,CDjLnD,GA Ae,IAAf,GAAYB,qBAAK,CAAL,C;K;wFAGpC,y  
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ATX,C;wFAYA,yB;MAAA,mD;MAAA,+C;MAAA,oC;MAAA,uC;QAIkB,Q;QAAA,OAAQ,SAAR,sBAAQ,CAA  
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Gf,OAAO,E;O;KATX,C;IAYA,4B;MAQI,ICqHgD,qBAAU,CDrH1D,C;QACI,MAAM,2BAAuB,yBAAvB,C;MA  
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V,C;IAeA,kC;MAMI,OC2FgD,qBAAU,CD3FnD,GA Ae,IAAf,GAAYB,qBAAK,mBAAS,CAAT,IAAL,C;K;sFAG  
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D;QlBxTd,MAAM,gCAAYB,OAAQ,WAAjC,C;;MkByTV,OAAO,mBAAkB,gBAAZ,mBAAS,CAAT,IAAY,EAA  
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B,C;K;2FAGX,yB;MAAA,uD;MAAA,oC;MAAA,uC;QAMI,iBAAc,wBAAd,WAA+B,CAA/B,U;UACI,IAAI,CA  
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,CAAL,C;YACI,OL/JqE,oBK+JpD,KL/JoD,C;;QKqK7E,OAAO,E;O;KATX,C;8EAYA,yB;MAAA,yD;MAKFA,o  
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,CAAd,wB;UACI,cAAc,qBAAL,KAAJ,C;UACd,IA3E6B,SA2EzB,CAAU,oBAAV,CAAJ,C;YAAwB,WAAY,gBA  
AO,OAAP,C;;QA3ExC,OA6EO,WA7EqC,W;O;KANhD,C;4FASA,yB;MAAA,yD;MAAsBA,gC;MAmtBA,6C;MA  
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;O;KAZBX,C;oFASA,yB;MAAA,yD;MASA,6C;MAAA,oC;MAAA,gC;MATA,uC;QAMW,kBAAY,oB;QASH,Q;  
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QpCrc/B,6B;eoCqc+B,6B;UAAA,qB;YAAE,yBpC3bM,coC2bI,EpC3bJ,CoC2bN,C;W;S;OAAF,C;MAP/B,uC;QA  
OMb,kBAAR,iB;QAAQ,sB;;UvCm5BD,Q;UAAA,OAAQ,SAAR,wBAAQ,CAAR,W;UAAAd,OAAc,cAAd,C;YAA  
c,uB;YACV,IuCp5ByB,UpC3bM,cH+0CjB,YAAK,KAAL,CG/0CiB,CoC2bN,CvCo5BzB,C;cACI,qBAAO,K;cAA  
P,uB;;;UAGR,qBAAO,E;;;QuCx5BP,yB;O;KAPJ,C;+FAUA,yB;MAAA,sC;MvCw5BA,0D;MAAA,+C;MoBj1CA,  
+B;MmBybA,yBAO+B,yB;QnBhc/B,+B;emBgc+B,6B;UAAA,qB;YAAE,yBnBtbS,emBsbC,EnBtbD,CmBsbT,C;  
W;S;OAAF,C;MAP/B,uC;QAOMb,kBAAR,iB;QAAQ,sB;;UvCq5BD,Q;UAAA,OAAQ,SAAR,wBAAQ,CAAR,W  
;UAAAd,OAAc,cAAd,C;YAAc,uB;YACV,IuCt5ByB,UnBtbS,epB40CpB,YAAK,KAAL,CoB50CoB,CmBsbT,CvCs  
5BzB,C;cACI,qBAAO,K;cAAP,uB;;;UAGR,qBAAO,E;;;QuC15BP,yB;O;KAPJ,C;+FAUA,yB;MAAA,sC;MvC02  
BA,0D;MAAA,+C;ME12CA,+B;MqCggBA,yBAO+B,yB;QrCvgB/B,+B;eqCugB+B,6B;UAAA,qB;YAAE,yBrC7f  
S,eqC6fC,ErC7fD,CqC6fT,C;W;S;OAAF,C;MAP/B,uC;QAOMb,kBAAR,iB;QAAQ,sB;;UvCu2BD,Q;UAAA,OA  
AQ,SAAR,wBAAQ,CAAR,W;UAAAd,OAAc,cAAd,C;YAAc,uB;YACV,IuCx2ByB,UrC7fS,eFq2CpB,YAAK,KAA  
L,CEr2CoB,CqC6fT,CvCw2BzB,C;cACI,qBAAO,K;cAAP,uB;;;UAGR,qBAAO,E;;;QuC52BP,yB;O;KAPJ,C;+FA  
UA,yB;MAAA,sC;MvC42BA,0D;MAAA,+C;MIz2CA,iC;MmC6fA,yBAO+B,yB;QnCpgB/B,iC;emCogB+B,6B;U  
AAA,qB;YAAE,yBnC1fY,gBmC0fF,EnC1fE,CmC0fZ,C;W;S;OAAF,C;MAP/B,uC;QAOMb,kBAAR,iB;QAAQ,s  
B;;UvCy2BD,Q;UAAA,OAAQ,SAAR,wBAAQ,CAAR,W;UAAAd,OAAc,cAAd,C;YAAc,uB;YACV,IuC12ByB,Un  
C1fY,gBj02CvB,YAAK,KAAL,CIp2CuB,CmC0fZ,CvC02BzB,C;cACI,qBAAO,K;cAAP,uB;;;UAGR,qBAAO,E;;;  
QuC92BP,yB;O;KAPJ,C;+FAUA,yB;MAAA,4C;MpCteA,6B;MoCseA,4B;QAWI,OpCvemC,coCuepB,KAAAR,iBA  
AQ,CpCveoB,C;O;KoC4dvC,C;+FAUA,yB;MAAA,4C;MnBreA,+B;MmBqeA,4B;QAWI,OnBtesC,emBsevB,KAA  
R,iBAAQ,CnBteuB,C;O;KmB2d1C,C;+FAUA,yB;MAAA,4C;MrChjBA,+B;MqCgjBA,4B;QAWI,OrCjjBsC,eqCijB  
vB,KAAAR,iBAAQ,CrCjjBuB,C;O;KqCsiB1C,C;+FAUA,yB;MAAA,4C;MnCjjBA,iC;MmCijBA,4B;QAWI,OnCljB  
yC,gBmCkjB1B,KAAAR,iBAAQ,CnCljB0B,C;O;KmCuiB7C,C;+FAUA,yB;MAAA,+C;MAAA,iE;MA83FI,0D;MA9  
3FJ,uC;QAWkB,Q;QAAA,OAAa,SAm3FX,YAn3FF,SAm3FN,QAAQ,CAn3FW,CAAb,W;QAAAd,OAAc,cAAd,C;

UAAc,uB;UACV,cAAc,sBAAK,KAAL,C;UACd,IAAI,UAAU,OAAV,CAAJ,C;YAAwB,OAAO,O;;QAEEnC,MAA  
M,gCAAuB,mDAAvB,C;O;KafV,C;iFakBA,yB;MAAA,+C;MAAA,iE;MAo3FI,0D;MAP3FJ,uC;QAWkB,Q;QA  
AA,OAAa,SAy2FX,YAz2FF,SAy2FN,QAAQ,CAz2FW,CAAb,W;QAAd,OAAc,cAAd,C;UAAc,uB;UACV,cAAc,  
sBAAK,KAAL,C;UACd,IAAI,UAAU,OAAV,CAAJ,C;YAAwB,OAAO,O;;QAEEnC,MAAM,gCAAuB,mDAAvB,  
C;O;KafV,C;iFakBA,yB;MAAA,+C;MAAA,iE;MA02FI,0D;MA12FJ,uC;QAWkB,Q;QAAA,OAAa,SA+1FX,YA  
/1FF,SA+1FN,QAAQ,CA/1FW,CAAb,W;QAAd,OAAc,cAAd,C;UAAc,uB;UACV,cAAc,sBAAK,KAAL,C;UACd,  
IAAI,UAAU,OAAV,CAAJ,C;YAAwB,OAAO,O;;QAEEnC,MAAM,gCAAuB,mDAAvB,C;O;KafV,C;iFakBA,yB;  
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1FW,CAAb,W;QAAd,OAAc,cAAd,C;UAAc,uB;UACV,cAAc,sBAAK,KAAL,C;UACd,IAAI,UAAU,OAAV,CAA  
J,C;YAAwB,OAAO,O;;QAEEnC,MAAM,gCAAuB,mDAAvB,C;O;KafV,C;+FakBA,yB;MAAA,0D;MAAA,qC;Q  
AOI,OAAe,YAAR,iBAAQ,EAAY,OpCxsBM,KoCwsBIB,C;O;KAPnB,C;+FAUA,yB;MAAA,0D;MAAA,qC;QA  
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BAAO,CAAP,IAAL,C;K;IAGpC,kC;MAQI,OAAW,mBAAJ,GAAe,IAAf,GAAyB,sBAAK,iBAAO,CAAP,IAAL,  
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AO,O;;QAEEnC,OAAO,I;O;KAbX,C;6FAGBA,yB;MAAA,+C;MA0tFI,0D;MA1tFJ,uC;QASkB,Q;QAAA,OAAa,S  
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C;UACd,IAAI,UAAU,OAAV,CAAJ,C;YAAwB,OAAO,O;;QAEEnC,OAAO,I;O;KAbX,C;6FAGBA,yB;MAAA,+C;  
MAktFI,0D;MAItFJ,uC;QASkB,Q;QAAA,OAAa,SAysFX,YAzsFF,SAysFN,QAAQ,CAzsFW,CAAb,W;QAAd,O  
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UAAhB,OAAgB,cAAhB,C;YAAgB,yB;YACZ,cAmYwB,SAZYV,CAAU,WAAV,EAAuB,OAAvB,C;YACd,MA  
AO,WAAI,WAAJ,C;;UAEX,qBAAO,M;;;QAgYP,yB;O;KAhBJ,C;+FAMBA,yB;MAhYA,gD;MAAA,gE;MA17KI,  
0D;MAkzLJ,gD;QAIbW,6B;;UA9XO,gC;UAHd,IAAI,mBAAJ,C;YAAe,4BAAO,OAiYI,OAjYJ,C;YAAP,8B;;UA  
CqB,kBAAvB,eAAa,iBAAO,CAAP,IAAb,C;UAA+B,sBAgYIB,OAHykC,C;UAA5C,arB9pSO,W;UqB+pSP,kBA  
+X0B,O;UA9XZ,OA8KE,YAAR,iBAAQ,C;UAq8KF,mB;UAAA,kB;UAAA,kB;UAAAd,0D;YACI,cA6X+B,SA7  
XjB,CAAU,KA AV,EAAiB,WAAjB,EAA8B,sBAAK,KAAL,CAA9B,C;YACd,MAAO,WAAI,WAAJ,C;;UAEX,4  
BAAO,M;;;QA0XP,gC;O;KAjBJ,C;+FAoBA,yB;MA1XA,gD;MAAA,gE;MAp8KI,0D;MA8zLJ,gD;QAIbW,6B;;  
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,CAAP,IAAb,C;UAA+B,sBA0XIB,OA1XkC,C;UAA5C,arBxrSO,W;UqByrSP,kBAyX0B,O;UAxXZ,OA9KE,YA  
AR,iBAAQ,C;UAu9KF,mB;UAAA,kB;UAAA,kB;UAAAd,0D;YACI,cAuX+B,SAvXjB,CAAU,KA AV,EAAiB,WA  
AjB,EAA8B,sBAAK,KAAL,CAA9B,C;YACd,MAAO,WAAI,WAAJ,C;;UAEX,4BAAO,M;;;QAoXP,gC;O;KAjBJ  
,C;+FAoBA,yB;MApXA,gD;MAAA,gE;MA7KI,0D;MA00LJ,gD;QAIbW,6B;;UAIXO,gC;UAHd,IAAI,mBAAJ,  
C;YAAe,4BAAO,OAqXI,OA8XJ,C;YAAP,8B;;UACqB,kBAAvB,eAAa,iBAAO,CAAP,IAAb,C;UAA+B,sBAoXI

B,OApxkB,C;UAA5C,arBltsO,W;UqBmtSP,kBAmX0B,O;UAIXZ,OAz+KE,YAAR,iBAAQ,C;UAY+KF,mB;UAA  
AA,kB;UAAA,kB;UAAAd,0D;YACI,cAiX+B,SAjXjB,CAAU,KAAV,EAAiB,WAAjB,EAA8B,sBAAK,KAAL,CA  
A9B,C;YACd,MAAO,WAAI,WAAJ,C;;UAEX,4BAAO,M;;;QA8WP,gC;O;KAjBJ,C;+FAoBA,yB;MA9WA,gD;M  
AAA,gE;MAx+KI,0D;MA5ILJ,gD;QAIbW,6B;;UA5WO,gC;UAHd,IAAI,mBAAJ,C;YAAe,4BAAO,OA+WI,OA/  
WJ,C;YAAP,8B;;UACqB,kBAAvB,eAAa,iBAAO,CAAP,IAAb,C;UAA+B,sBA8WIB,OA9WkB,C;UAA5C,arB5u  
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,UAAgB,W;QACA,2B;QAAhB,OAAgB,cAAhB,C;UAAgB,yB;UACZ,MpC3mTiD,SoC2mTjD,GpC3mT2D,KAA  
K,GoC2mTzD,SAAS,OAAT,CpC3mToE,KAAx,IAAf,C;;QoC6mTrD,OAAO,G;O;KAbX,C;mFAGBA,yB;MAAA  
,wB;MAAA,sC;QAUoB,Q;QADhB,UAAgB,W;QACA,2B;QAAhB,OAAgB,cAAhB,C;UAAgB,yB;UACZ,MpC3n  
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B,G;MACF,2B;MAAhB,OAAgB,cAAhB,C;QAAgB,yB;QACZ,OAAO,SAAS,OAAT,C;;MAEX,OAAO,G;K;+FA  
GX,+B;MAUoB,Q;MADhB,UAAkB,G;MACF,2B;MAAhB,OAAgB,cAAhB,C;QAAgB,yB;QACZ,OAAO,SAAS,  
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;QAAgB,yB;QACZ,OAAO,SAAS,OAAT,C;;MAEX,OAAO,G;K;+FAGX,+B;MAUoB,Q;MADhB,UAAkB,G;MA  
CF,2B;MAAhB,OAAgB,cAAhB,C;QAAgB,yB;QACZ,OAAO,SAAS,OAAT,C;;MAEX,OAAO,G;K;kFAGX,+B;  
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;;MAEX,OAAO,G;K;mFAGX,+B;MAYoB,Q;MADhB,UAAoB,C;MACJ,2B;MAAhB,OAAgB,cAAhB,C;QAAgB,  
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Q;MADhB,UAAoB,C;MACJ,2B;MAAhB,OAAgB,cAAhB,C;QAAgB,yB;QACZ,OAAO,SAAS,OAAT,C;;MAEX,  
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AA,uC;MAAA,0C;O;MAIL,kE;MAEA,wF;MAEA,oF;MAEA,wE;MAEA,kE;MAEA,oF;MAEA,sF;MAEA,8E;MA  
EA,wE;MAEA,sF;MAEA,uF;MAEA,iE;MAEA,6E;MAEA,iE;MAEA,2E;K;IA5BA,8C;MAAA,6B;MAAA,sC;K;;  
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BIC,IAA+B,C;;MAInC,qBAAqB,sW;MACrB,WAAW,mBAAmB,cAAnB,EAAmC,UAAc,EAA+C,GAA/C,C;M  
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AtC,a;K;IAGJ,wC;MpCuTe,WoC/SY,KpC+SZ,IAAS,C;MAAT,S;QAAC,OOc/SF,KpC+SE,IAigHT,gBAAR,iBAA  
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D,iB;MACI,oCAAa,2BAAkB,KAAIB,EAAyB,SAAZB,C;MACb,OAAO,6BAAY,KAAZ,C;K;qDAEX,mB;MAES,  
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AS,uB;K;8FACW,Y;MAAQ,OAAA,gBAAY,K;K;+CAC3C,Y;MAAkC,OAAA,gBAAY,U;K;sDAC9C,mB;MAAi  
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CCTP,gB;;K;;ICAJ,wB;K;;IAIA,wB;K;;IAIA,wB;K;;IAKiC,uB;MAAC,oB;QAAA,OAA0B,E;MAA1B,gB;K;;IAE  
IC,kB;K;;IAqCqC,sB;MAAC,gB;K;;IAgCN,4B;MAAC,sB;K;;IAEjC,uB;K;;IA8DmC,4B;MAAC,kB;K;;IAEpC,oB  
;K;;IAMCA,+B;K;;ICvLA,oB;K;;IAIA,wB;K;;oFzDJA,qB;MAKqE,uC8BJtB,E;K;iG9BM/C,yB;MAAA,kD;MAA  
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,8CAAV,C;K;IAKU,gE;MAAA,qB;QAAE,QAAO,gBAAP,mB;O;K;sDAFvB,oB;MACI,qB;MACA,OAAO,kBAA  
U,8CAAV,C;K;6CAIX,Y;MAAqD,iD;K;mDAErD,mB;MAAoD,0BAAQ,OAAR,KAAoB,C;K;kDAExE,mB;MAC  
qB,Q;MAAA,6B;MAAJB,iBAAC,CAAd,yB;QACI,IAAI,wBAAI,KAAJ,GAAC,OAAd,CAAJ,C;UACI,OAAO,K;;  
MAGf,OAAO,E;K;sDAGX,mB;MACI,iBAAC,sBAAd,WAA+B,CAA/B,U;QACI,IAAI,wBAAI,KAAJ,GAAC,OA  
Ad,CAAJ,C;UACI,OAAO,K;;MAGf,OAAO,E;K;iDAGX,Y;MAA6D,iCAAA,CAAb,C;K;yDAC7D,iB;MAAuE,sD  
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AAe,0BAAa,SAAb,C;MACf,YAAO,UAAU,SAAV,I;M/DuDX,iBAAC,CAAd,UAAsB,KAAtB,U;Q+DtDiB,e;QAC  
A,iB;;K;2CAIjB,iB;MAMI,IAAI,UAAU,IAAd,C;QAAoB,OAAO,I;MAC3B,IAAI,2BAAJ,C;QAAuB,OAAO,K;M  
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C;K;IAG5C,kD;MAAA,oB;MACI,eACsB,C;MACTB,cAIqB,E;K;yDAErB,Y;MAAKC,sBAAQ,gB;K;sDAE1C,Y;  
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3CxB,MAAM,6BAAsB,OAAQ,WAA9B,C;;MkE6CF,6BAAS,WAAAT,C;MACA,eAAQ,W;MACR,cAAO,E;K;;IA  
OqB,6D;MAHpC,oB;MAGmD,wD;MAG3C,oCAAA,4BAAMB,KAAAnB,EAA0B,WAAyB,KAAAnD,C;MACb,eAA  
a,K;K;iEAGjB,Y;MAAsC,sBAAQ,C;K;+DAE9C,Y;MAAGC,mB;K;8DAEHc,Y;MACI,IAAI,CAAC,kBAAL,C;Q  
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Q,WAA9B,C;;MkEkFF,wBAAl,WAAJ,EAAU,OAAV,C;K;;IAIgb,+D;MAAuF,8B;MAAtF,kB;MAA0C,4B;MAC/D,eAAyB,C;MAGrB,oCAAA,2BAAkB,gBAAlB,EAA6B,OAA7B,EAA5C,WAAK,KAA3C,C;MACb,eAAa,UAAU,gBAAV,I;K;wDAGjB,0B;MACl,oCAAA,4BAAMb,KAAAnB,EAA0B,YAA1B,C;MAEb,WAAK,aAAI,mBAAY,KAAZ,IAAJ,EAAuB,OAAvB,C;MACl,mC;K;wDAGJ,iB;MACl,oCAAA,2BAAkB,KAAIB,EAAyB,YAAzB,C;MAEb,OAAO,wBAAK,mBAAY,KAAZ,IAAL,C;K;6DAGX,iB;MACl,oCAAA,2BAAkB,KAAIB,EAAyB,YAAzB,C;MAEb,aAAa,WAAK,kBAAS,mBAAY,KAAZ,IAAT,C;MAClB,mC;MACA,OAAO,M;K;wDAGX,0B;MACl,oCAAA,2BAAkB,KAAIB,EAAyB,YAAzB,C;MAEb,OAAO,WAAK,aAAI,mBAAY,KAAZ,IAAJ,EAAuB,OAAvB,C;K;mGAGO,Y;MAAQ,mB;K;2DAE/B,Y;MAA+C,WAAK,iB;K;;;ICxMN,8B;MAAiC,sB;MAwCnF,uBAaOC,I;MA+CpC,yBAA6C,I;K;IAIFR,oD;MAAC,wB;MAGlC,gBAAqB,K;K;IFAHa,Y;MAAA,yB;K;uGAKZ,Y;MAAQ,oB;K;8DAE9B,oB;MAKI,eAAe,IAAK,S;MACpB,gBAAC,Q;MACd,OAAO,Q;K;wDAGX,Y;MAA+B,iEAAc,IAAd,C;K;wDAC/B,Y;MAAkC,iEAAc,IAAd,C;K;sDACL,iB;MAA4C,+DAAY,IAAZ,EAakB,KAAIB,C;K;;IAIB5C,8E;MAAA,wE;MAAsC,2CAAK,KAAM,IAAX,EAAGb,KAAM,MAAtB,C;MAAtC,Y;K;IASBJ,+C;MACsE,6B;K;mEACIE,mB;MAAmD,kCAAc,OAAAd,C;K;IEAEnD,mB;MAAiD,gCAAY,OAAZ,C;K;;yCAIrD,Y;MACl,YAAQ,Q;K;IAOQ,+F;MAAA,sD;MAAS,6B;K;uFACb,mB;MAAwC,MAAM,qCAA8B,8BAA9B,C;K;mFAC9C,Y;MACl,4BAAwB,Q;K;4FAG5B,mB;MAAsD,sDAAY,OAAZ,C;K;IAI3C,oH;MAAA,kD;K;4GACH,Y;MAAkC,OAAA,0BAAc,U;K;yGACHd,Y;MAAYB,OAAA,0BAAc,OAAO,I;K;2GAC9C,Y;MAAwB,0BAAc,S;K;;sFAL9C,Y;MACl,oBAaOB,oCAAQ,W;MAC5B,6G;K;0FAOJ,mB;MACl,qB;MACA,IAAI,+CAAY,OAAZ,CAAJ,C;QACl,4BAAwB,cAAO,OAAp,C;QACxB,OAAO,I;;MAEX,OAAO,K;K;oIAGY,Y;MAAQ,OAAA,4BAAwB,K;K;4FAEvD,Y;MAAsC,4BAAwB,iB;K;;0FA9B1E,Y;MACl,IAAI,4BAAJ,C;QACl,6F;;MA+BJ,OAAO,mC;K;kDAKf,gB;MAEyB,Q;MADrB,qB;MACqB,OAAA,I5EkR2D,QAAQ,W;M4EIRxF,OAAqB,cAArB,C;QAAqB,wB;QAaf,U5EmMsD,U;Q4EnMjD,Y5EgNiD,Y;Q4E/MxD,iBAAl,GAAJ,EAAS,KAAT,C;;K;IAQc,iG;MAAA,sD;MAAS,oC;K;yFACf,mB;MAAwC,MAAM,qCAA8B,gCAA9B,C;K;qFAC9C,Y;MAAuB,4BAAwB,Q;K;8FAE/C,mB;MAAsD,wDAAc,OAAAd,C;K;IAI3C,sH;MAAA,kD;K;8GACH,Y;MAAkC,OAAA,0BAAc,U;K;2GACHd,Y;MAAYB,OAAA,0BAAc,OAAO,M;K;6GAC9C,Y;MAAwB,0BAAc,S;K;;wFAL9C,Y;MACl,oBAaOB,oCAAQ,W;MAC5B,+G;K;sIAOmB,Y;MAAQ,OAAA,4BAAwB,K;K;8FAEvD,Y;MAAsC,4BAAwB,iB;K;;4FAnB1E,Y;MACl,IAAI,8BAAJ,C;QACl,iG;;MAoBJ,OAAO,qC;K;gDAGf,e;MACl,qB;MACA,WAAW,YAAQ,W;MACnB,OAAO,IAAK,UAAZ,C;QACl,YAAY,IAAK,O;QACjB,QAAQ,KAAM,I;QACd,IAAI,YAAO,CAAP,CAAJ,C;UACl,YAAY,KAAM,M;UACIB,IAAK,S;UACL,OAAO,K;;MAGf,OAAO,I;K;kDAIX,Y;K;;IC3I+C,8B;MAAiC,oC;K;0CAEHf,iB;MAMI,IAAI,UAAU,IAAd,C;QAAoB,OAAO,I;MAC3B,IAAI,0BAAJ,C;QAAsB,OAAO,K;MAC7B,OAAO,mCAAY,mBAAU,IAAV,EAAGb,KAAhB,C;K;4CAGvB,Y;MAG+B,OAAA,mCAAY,2BAAkB,IAAIB,C;K;;ICbT,0B;MAAuD,8B;MAAIC,4B;MACvD,4BAAkC,K;K;gCAkBiC,Y;MAEI,qB;MACA,4BAaA,I;MACb,OAAO,I;K;qCAGX,Y;K;iDAGA,uB;K;iFAG8B,Y;MAAQ,OAAA,oBAAM,O;K;sCAC5C,iB;MACyC,Q;MAAA,oCAAM,0BAAW,KAAx,CAAN,4D;K;sCACzC,0B;MAIW,IAAa,I;MAHpB,qB;MACA,0BAAW,KAAx,C;MAEoB,gBAAb,qBAAM,KAAN,C;MAAqB,qC;MAA5B,OAAO,CAAA,OIE8BjB,SkE9BI,2D;K;oCAGX,mB;MACl,qB;MACM,oBAAY,MAAK,OAAAL,C;MACIB,qC;MACA,OAAO,I;K;sCAGX,0B;MACl,qB;MACM,oBAAY,QAAO,mCAAoB,KAAPB,CAAP,EAAMC,CAAnC,EAA5C,OAAAtC,C;MACIB,qC;K;yCAGJ,oB;MACl,qB;MACA,IAAI,QAAS,UAAb,C;QAAwB,OAAO,K;MAE/B,uBAAA,oBpEioDoB,QMhrD0C,Y8D+CrD,Q9D/CqD,CNgrD1C,C;MoEhoDpB,qC;MACA,OAAO,I;K;yCAGX,2B;MACl,qB;MACA,mCAAoB,KAAPB,C;MAEA,IAAI,UAAAS,SAAb,C;QAAMb,OAAO,oBAAO,QAAP,C;MAC1B,IAAI,QAAS,UAAb,C;QAAwB,OAAO,K;MAE3B,IADE,KACf,e;QAAQ,OAAO,oBAAO,QAAP,C;WACf,IAFE,KAef,O;QAAK,uB9D5DqD,Y8D4D7C,Q9D5D6C,CNgrD1C,QoEpnD6B,oBpEonD7B,C;;QoEnnDR,uBAAoC,cAA5B,oBAA4B,EAAY,CAAU,EAAP,KAAO,CAAY,Q9D7DE,Y8D6DK,Q9D7DL,C8D6DF,EAA4C,cAAN,oBAAM,EAAY,KAAZ,EAAMb,SAAnB,CAA5C,C;;MAG5D,qC;MACA,OAAO,I;K;2CAGX,iB;MACl,qB;MACA,0BAAW,KAAx,C;MACA,qC;MACA,OAAW,UAAAS,sBAAb,GACG,oBAAY,MADf,GAGG,oBAAY,QAAO,KAAP,EAAC,CAAd,CAAIB,CAAMC,CAAnC,C;K;uCAGR,mB;MAEkB,Q;MADd,qB;MACc,2B;MAAd,mD;QACl,IAAI,4BAAM,KAAN,GAAGb,OAahB,CAAJ,C;UACU,oBAAY,QAAO,KAAP,EAAC,CAAd,C;UACIB,qC;UACA,OAAO,I;;MAGf,OAAO,K;K;8CAGX,8B;MACl,qB;MACA,qC;MACM,oBAAY,QAAO,SAAP,EAakB,UAAU,SAAV,IAAIB,C;K;gCAGtB,Y;MACl,qB;MACA,uBhChHuC,E;MgCiHvC,qC;K;wCAIJ,mB;MAA+C,OAAAM,QAAN,oBAAM,EAAY,QAAR,C;K;4CAErD,mB;MAAmD,OAAM,YAAN,oBAAM,EAAY,OAAZ,C;K;mCAE

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AAO,W;K;8BAGX,Y;MACI,gBAAI,Q;K;:uCAOR,mB;MAA6D,OAAA,gBAAI,mBAAY,OAAZ,C;K;gCAEjE,Y;  
MAAyC,OAAA,gBAAI,U;K;:CAE7C,Y;MAAqD,OAAA,gBAAI,KAAK,W;K;:qCAE9D,mB;MAAkD,OAAA,gB  
AAI,cAAO,OAAP,CAAJ,Q;K;:EAEPB,Y;MAAQ,OAAA,gBAAI,K;K;:IA5D1C,6B;MAAA,iD;MAGoB,8B;MAZ  
xB,mB;MAAq,oBAAM,gB;MAJV,Y;K;IAOA,yC;MAAA,iD;MAG2C,8B;MANb/C,mB;MAoBQ,oBAAM,eAAgB  
,QAAS,KAAzB,C;MACN,qBAAO,QAAP,C;MALJ,Y;K;IAQA,4D;MAAA,iD;MAQ2D,8B;MAhC/D,mB;MAiCQ,  
oBAAM,eAAgB,eAAhB,EAAiC,UAAjC,C;MATV,Y;K;IAYA,gD;MAAA,iD;MAA2C,eAAK,eAAL,EAAaB,GA  
AtB,Q;MAA3C,Y;K;IAEA,oC;MAAA,iD;MAM0C,8B;MA5C9C,mB;MA6CQ,oBAAW,G;MAPf,Y;K;IAmCJ,+B;  
MAKuC,gBAA5B,eAAQ,eAAR,C;MAAoC,6B;MAA3C,OvENO,S;K;IwEzD6B,uC;MAAC,kC;MAErC,oBAAkC,  
kB;MACIC,sBAAYB,C;K;2EAHY,Y;MAAA,8B;K;2FAGrC,Y;MAAA,0B;K;OAAA,gB;MAAA,0B;K;gDAGA,sB  
;MACI,eAAe,aAAS,qBAAY,GAAZ,C;MACxB,mBAAmB,6BAAsB,QAAtB,C;MACnB,IAAI,oBAAJ,C;QAEI,kB  
AAW,QAAX,IAAuB,mCAAY,GAAZ,EAAiB,KAAjB,C;:QAEvB,IAAI,6BAAJ,C;UAEI,YAA+B,Y;UAC/B,IAAI,  
aAAS,gBAAO,KAAM,IAAb,EAakB,GAAIB,CAAb,C;YACI,OAAO,KAAM,gBAAS,KAAT,C;:YAEb,kBAAW,  
QAAX,IAAuB,CAAQ,KAAR,EAAe,mCAAY,GAAZ,EAAiB,KAAjB,CAAf,C;YACvB,6B;YACA,OAAO,I;:;UAI  
X,YAAuC,Y;UACvC,cAAkB,wBAAN,KAAM,EAAiB,GAAjB,C;UACIB,IAAI,eAAJ,C;YACI,OAAO,OAAM,gB  
AAS,KAAT,C;:UAEX,KAAY,MAAK,mCAAY,GAAZ,EAAiB,KAAjB,CAAL,C;:;MAG1B,6B;MAEA,OAAO,I;  
K;:iDAGX,e;MAE0D,IAAnC,I;MADnB,eAAe,aAAS,qBAAY,GAAZ,C;MACL,oCAAsB,QAAtB,C;MAAA,iB;QA  
AmC,OAAO,I;:;MAA7D,mBAAmB,I;MACnB,IAAI,6BAAJ,C;QACI,YAAgC,Y;QACHC,IAAI,aAAS,gBAAO,KA  
AM,IAAb,EAakB,GAAIB,CAAb,C;U9BzDR,O8B0D6B,iB9B1DhB,C8B0D4B,Q9B1D5B,C;U8B2DD,6B;UACA  
,OAAO,KAAM,M;:;UAEb,OAAO,I;:;QAGX,YAAuC,Y;QACvC,8BAAc,KAAAd,iB;UACI,cAAY,MAAM,KAAN,C  
;UACZ,IAAI,aAAS,gBAAO,GAAP,EAAY,OAAM,IAAIB,CAAb,C;YACI,IAAI,KAAM,OAAN,KAAC,CAAIB,C;  
cACU,KAAN,UAA2B,C;c9BtE/C,O8BwEqC,iB9BxExB,C8BwEoC,Q9BxEpC,C;:c8B2Ea,KAAY,QAAO,KAAP,  
EAAc,CAAd,C;:YAEtB,6B;YAEA,OAAO,OAAM,M;:;MAIzB,OAAO,I;K;0CAGX,Y;MACI,oBAAa,kB;MACb,  
YAAO,C;K;:mDAGX,e;MAAyC,uBAAS,GAAT,S;K;8CAEzC,e;MAA+B,Q;MAAA,+BAAS,GAAT,8B;K;:CAE/  
B,e;MAC2E,IAApD,I;MAAA,oCAAsB,aAAS,qBAAY,GAAZ,CAA/B,C;MAAA,iB;QAAoD,OAAO,I;:;MAA9E,m  
BAAmB,I;MACnB,IAAI,6BAAJ,C;QACI,YAAgC,Y;QACHC,IAAI,aAAS,gBAAO,KAAM,IAAb,EAakB,GAAIB,  
CAAb,C;UACI,OAAO,K;:;UAEP,OAAO,I;:;QAGX,YAAuC,Y;QACvC,OAAa,wBAAN,KAAM,EAAiB,GAAjB,C  
;K;:uDAIrB,0B;MACI,sB;:;Q1FsoCY,Q;QAaHb,iD;UAAgB,cAAhB,e;UAAaB,I0FtoCK,aAAS,gB1FsoCA,00FtoC  
a,IAAb,M1FsoCd,C;YAAwB,qBAAO,O;YAAP,uB;:;QAC9C,qBAAO,I;:;M0FvoCH,yB;K;IAIO,8E;MAAA,wD;M  
ACH,aAAY,E;MAEZ,YAA0B,MAAa,MAAK,qCAAL,C;MACvC,gBAAe,E;MAEf,oBAA4B,I;MAC5B,eAAc,K;  
MACd,iBAAGB,E;MACHb,iBAAqC,I;K;:yEAER,C;Y;MACI,IAAI,6BAAwB,YAA5B,C;QACI,gBAAqB,iBAAqD,  
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W,UAAK,aAAL,CAAX,C;QACf,eAAU,iC;QACV,iBAAy,C;QACZ,OAAO,C;:;QAEp,oBAAe,I;QACf,OAAO,C;:  
K;mEAI,f;Y;MACI,IAAI,eAAS,EAAb,C;QACI,AAAQ,oB;MACZ,OAAO,eAAS,C;K;gEAGpB,Y;MAEoB,Q;MAD  
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;MAHJ,oB;MAKA,iBAaIB,S;MACjB,AAAQ,E;MACR,OAAO,S;K;KEAGX,Y;M3E/CR,I2EgDyB,c3EhDrB,QAA  
J,C;QACI,cAhByB,0B;QAIbZB,MAAM,6BAAsB,OAAQ,WAA9B,C;:;M2E+CE,6BAAYB,cAAO,6BAAy,IAAnB,  
C;MACzB,iBAAY,I;MAEZ,uC;K;:6CAtdZ,Y;MAEI,2D;K;4DAyDJ,oB;MACI,mBAAmB,kBAAW,QAAX,C;MA  
CnB,OAAW,iBAaIB,SAArB,GAAgC,IAAhC,GAA0C,Y;K;:;wCCtKrD,Y;MACI,aAAGB,MAAM,OAAT,CAAIb  
,IAAjB,C;MAEb,OAAO,KAAP,IAAgB,C;M/BXpB,O+BYqB,M/BZR,C+BYgB,K/BZhB,C;M+BaT,OAAO,M;K;:  
ICNuB,qC;MAAC,kC;MAEnC,oBAAkC,kB;MACIC,sBAAYB,C;K;:yEAHU,Y;MAAA,8B;K;:yFAGnC,Y;MAAA,0  
B;K;OAAA,gB;MAAA,0B;K;:iDAWA,e;MACI,IAAI,0BAAJ,C;QAAoB,OAAO,K;MAC3B,OAAO,kBAAW,GAA  
X,MAAoB,S;K;4CAG/B,e;MACI,IAAI,0BAAJ,C;QAAoB,OAAO,I;MAC3B,YAAy,kBAAW,GAAx,C;MACZ,O



AAW,UAAU,SAArB,GAAgC,KAAhC,GAA2D,I;K;8CAI/D,sB;M7EVA,IAAI,E6EWQ,uB7EXR,CAAJ,C;QACI,c  
Ada,qB;QAeb,MAAM,gCAAyB,OAAQ,WAAjC,C;;M6EUN,eAAe,kBAAW,GAAX,C;MACf,kBAAW,GAAX,IA  
AkB,K;MAEIB,IAAI,aAAa,SAAjB,C;QACI,6B;QAEA,OAAO,I;;QAGP,OAAO,Q;;K;+CAIf,e;MACI,IAAI,0BAA  
J,C;QAAoB,OAAO,I;MAC3B,YAAy,kBAAW,GAAX,C;MACZ,IAAI,UAAU,SAAd,C;QhCnDJ,OgCoDyB,iBhC  
pDZ,CgCoDwB,GhCpDxB,C;QgCqDL,6B;QAEA,OAAO,K;;QAGP,OAAO,I;;K;wCAKf,Y;MACI,oBAAa,kB;MA  
Cb,YAAO,C;K;IAKA,0E;MAAA,oD;MACH,cAAkC,MAAa,MAAK,mCAAL,C;MAC/C,kBAA4B,qBAAL,WAA  
K,C;MAC5B,iBAA+B,I;K;iEAE/B,Y;MAAkC,OAAA,eAAS,U;K;8DAE3C,Y;MAIuB,gB;MAHnB,UAAU,eAAS,  
O;MACnB,iBAAU,G;MAES,+E;MAAnB,OAAO,iD;K;gEAGX,Y;MAEkC,UAA9B,M;MAAA,oC;MAA8B,YAAa  
,c;M7EchD,uB;MAeP,IAfoB,KAehB,QAAJ,C;QACI,cAhByB,0B;QAIbZB,MAAM,6BAAsB,OAAQ,WAA9B,C;;  
QAEN,sBAnBgB,K;;M6Ede,oBAAO,sFAAP,C;K;;2CAjBnC,Y;MACI,yD;K;IAqBkD,0F;MAAA,8B;MAAA,oD;K  
;kHAC9B,Y;MAAQ,uB;K;oHACN,Y;MAAQ,6CAAuB,gBAAvB,C;K;2EAE9B,oB;MAAwC,OAAA,2BAAuB,aA  
AI,gBAAJ,EAAS,QAAT,C;K;qEAE/D,Y;MAA+B,OAAA,mCAAY,uBAAc,IAAd,C;K;qEAC3C,Y;MAAkC,OAA  
A,mCAAY,uBAAc,IAAd,C;K;mEAC9C,iB;MAA4C,OAAA,mCAAY,qBAAY,IAAZ,EAakB,KAAIB,C;K;;gDAR  
5D,e;MAAsD,iE;K;;MCIiD,sBAOsC,I;MA6CtC,yB;MAOA,4BAakC,K;;IArIE,sD;MAZpC,oB;MAYyD,0CAAq  
C,GAArC,EAA0C,KAA1C,C;MACrD,oBAAuC,I;MACvC,oBAAuC,I;K;wDAEvC,oB;MACI,WAAmB,iB;MACn  
B,OAAa,mEAAS,QAAT,C;K;;IAIrB,wC;MAAA,oB;MAA+B,8C;K;IAE3B,sD;MAAA,oB;MACI,cAcS,C,I;MAEt  
C,cAcS,C,I;MAGlC,cAAO,iC;K;6DAIX,Y;MACI,OAAO,gBAAS,I;K;0DAGpB,Y;MAEI,IAAI,CAAC,cAAL,C;Q  
AAgB,MAAM,6B;MAEtB,cAAc,0B;MACd,cAAO,O;MACa,gBAAb,OAAQ,a;;MAAf,c3E0DS,S2E1DoB,KAAO,  
iC3E0DzC,GAAqB,SAArB,GAA+B,I;M2EzD1B,OAAO,O;K;4DAGX,Y;M9EwBR,IAAI,E8EvBc,eAAQ,I9EuBtB  
,CAAJ,C;QACI,cAdW,e;QAeX,MAAM,6BAAsB,OAAQ,WAA9B,C;;M8ExBE,WAAc,iB;MAGP,oCAAP,0BAA  
O,C;MACP,gCAAI,cAAO,0BAAO,IAAd,C;MAEJ,cAAO,I;K;;iDAIf,mB;MAAyD,MAAM,qCAA8B,iCAA9B,C;  
K;6CAC/D,Y;MACI,WAAmB,Q;K;6DAGvB,mB;MAAgE,OAAA,WAAmB,uBAAc,OAAc,C;K;gDAEnF,Y;MA  
AwE,qD;K;2DAExE,mB;MACI,qB;MACA,IAAI,iBAAS,OAAT,CAAJ,C;QACI,WAAmB,cAAO,OAAQ,IAAf,C;  
QACnB,OAAO,I;;MAEX,OAAO,K;K;8FAGY,Y;MAAQ,OAAA,WAAmB,K;K;sDAEID,Y;MAAsC,WAAmB,iB;  
K;;iDAa7D,qB;M9ErBA,IAAI,E8E0BM,0BAAQ,IAAR,IAAgB,0BAAQ,I9E1B9B,CAAJ,C;QACI,cAdW,e;QAeX,  
MAAM,6BAAsB,OAAQ,WAA9B,C;;M8E0BN,YAAy,mB;MACZ,IAAI,SAAS,IAAb,C;QACI,sBAAO,S;QACP,y  
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,0B;UAIbZB,MAAM,6BAAsB,SAAQ,WAA9B,C;;UAEN,sBAnBgB,K;;Q8EkBZ,+B;QAEA,yBAAO,K;QACP,yB  
AAO,K;QAEP,qBAaA,S;QACb,qBAaA,S;;K;+CAIrB,qB;MAII,IAAI,SAAK,aAAL,KAAc,SAaIB,C;QAEI,sBAA  
O,I;;QAEP,IAAI,wBAAS,SAAb,C;UAEI,sBAAO,sB;;QAEX,qDAAc,sB;QACd,qDAAc,sB;;MAEIB,yBAAO,I;M  
ACP,yBAAO,I;K;oCA8CX,Y;MAEI,qB;MACA,4BAaA,I;MACb,OAAO,I;K;oCAGX,Y;MACI,qB;MACA,kBAAI  
,Q;MACJ,sBAAO,I;K;gDASX,e;MAAmD,OAAA,kBAAI,mBAAY,GAAZ,C;K;kDAEvD,iB;MACyC,IAAR,I;MA  
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,C;UACI,OAAO,I;;QAEX,OAAO,cAAA,IAAK,aAAL,C;;MACF,iBAAS,mBAAT,C;MACT,OAAO,K;K;6CAIX,  
Y;MAAoF,uC;K;wCAEPf,e;MAAmD,Q;MAAJ,QAAL,OAAJ,kBAAI,WAAI,GAJJ,CAAJ,6B;K;0CAE/C,sB;MA  
CI,qB;MAEA,UAAU,kBAAI,WAAI,GAJJ,C;MACd,IAAI,OAAO,IAAX,C;QACI,eAAe,mCAAW,GAAX,EAAG  
B,KAAhB,C;QACf,kBAAL,aAAI,GAJJ,EAAS,QAAT,C;QACK,wBAAT,QAAS,C;QACT,OAAO,I;;QAEP,OAA  
O,GAAI,gBAAS,KAAT,C;;K;2CAInB,e;MACI,qB;MAEA,YAAy,kBAAI,cAAO,GAAP,C;MACHB,IAAI,SAAS,I  
AAb,C;QACU,sBAAN,KAAM,C;QACN,OAAO,KAAM,M;;MAEjB,OAAO,I;K;qFAGmB,Y;MAAQ,OAAA,kBA  
AI,K;K;6CAE1C,Y;MACI,IAAI,yBAAJ,C;QAAgB,MAAM,oC;K;;IANg1B,mC;MAAA,uD;MAGuB,qB;MA9J3B,  
yB;MA+JQ,sBAAM,gB;MAJV,Y;K;IAOA,iD;MAAA,uD;MAAoD,qB;MAIKxD,yB;MAoKc,Q;MAAN,sBAAM,+  
D;MAFV,Y;K;IAKA,kE;MAAA,uD;MAQ8D,eAAM,eAAN,EAauB,UAAvB,Q;MA/KIE,yB;MAGLQ,sBAAM,gB  
;MATV,Y;K;IAYA,sD;MAAA,uD;MAA2C,qBAAK,eAAL,EAAsB,GAAtB,Q;MAA3C,Y;K;IAEA,+C;MAAA,uD  
;MAG2C,qB;MAxL/C,yB;MAyLQ,sBAAM,gB;MACN,KAAK,gBAAO,QAAP,C;MALT,Y;K;IA6EJ,kC;MAKwD  
,gBAA7C,qBAAYB,eAAzB,C;MAAqD,wB;MAA5D,O3EjMO,S;K;;oC4EvCP,Y;MAEK,Q;MAA8B,CAA9B,2EA  
A8B,S;MAC/B,OAAO,I;K;6CAGX,Y;MAA+C,gBAAI,iB;K;;IAhCnD,wC;MAAA,uD;MAAmD,eAAM,GAAN,Q;  
MAPvD,yB;MAOI,Y;K;IAEA,qC;MAAA,uD;MAGuB,eAAM,oBAAN,Q;MAZ3B,yB;MASI,Y;K;IAKA,+C;MAA  
A,uD;MAG8C,eAAM,oBAAN,Q;MAjBID,yB;MAkBQ,qBAAO,QAAP,C;MAJJ,Y;K;IAOA,kE;MAAA,uD;MAQ8

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vD,O5EoBO,S;K;;;kF6EzEX,uB;MAQI,OAAO,O;K;ICXX,sB;K;mCACI,Y;MACI,mBAAM,IAAN,C;K;2CAGJ,  
mB;MACI,mBAAM,OAAN,C;MACA,c;K;iCAKJ,Y;K;;IAKuB,oC;MAA8B,qB;MAA7B,gC;K;2CACxB,mB;MA  
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,C;K;;IAIhB,0B;MAEQC,qB;MACjC,cAAa,E;K;6CAEb,mB;MACI,eAoCyC,OApCxB,OAoCwB,C;K;qCAjC7C,Y  
;MACI,cAAS,E;K;;IAIjB,sC;MAE4C,yB;K;yDACxC,mB;MACI,QAwbYc,OAxB1B,OAwb0B,C;MAvBzC,QAA  
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,C;;MoEjLzE,4BAAU,C;K;iDAGd,Y;MACI,OAAQ,KAAI,WAAJ,C;MACR,cAAS,E;K;;;IAWjB,yB;MACiD,cAA  
a,KAAb,C;K;IAEjD,mB;MAEI,MAAO,U;K;IAGX,4B;MAEI,MAAO,iBAAQ,OAAR,C;K;IAGX,wB;MAEI,MAA  
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CAA9B,C;K;ICIGID,mD;MACI,0B;MASA,gBAA2B,a;K;2FAFvB,Y;MAAQ,OAAA,eAAS,Q;K;oDAIrB,kB;MA  
CI,UAAU,IAAK,S;MAEX,YAAQ,2CAAR,C;QACI,gBAAC,MAAO,M;WAEzB,YAAQ,yBAAR,C;QACI,gBAAC,  
yC;QACd,eAAS,oBAAW,MAAX,C;;QAEL,MAAM,6BAAsB,iBAAtB,C;K;4CAItB,Y;MAOW,Q;MALP,IAAI,kB  
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AAe,2CAAf,C;MADzD,Y;K;;;;ICRA,2C;MAAA,+D;MAAuB,iC;MAF3B,iC;MAEL,Y;K;IACA,sD;MAAA,+D;M  
AAuC,6BAAM,OAAN,Q;MAH3C,iC;MAGI,Y;K;IACA,6D;MAAA,+D;MAAmD,kCAAM,OAAN,EAAe,KAAf,  
C;MAJvD,iC;MAII,Y;K;IACA,oD;MAAA,+D;MAAiC,6BAAM,KAAN,Q;MALrC,iC;MAKI,Y;K;I1C4CJ,yE;MA  
SI,sC;MAAA,4C;K;IATJ,iGAWY,Y;MAAQ,2B;KAXpB,E;IAAA,0DAaQ,kB;MACI,wBAAW,MAAX,C;K;IAdZ,  
sF;I2C5C2E,0C;M5CkKhE,Q;MADP,e4ChKA,M5CgKA,C;MACO,Q4CjKP,M5CiKO,+D;M4ChKX,W;K;;+FCuH  
A,gB;MACI,aAAa,IAAO,MAAP,E;MACb,KAAK,MAAL,C;MACA,OAAO,M;K;wFC3HX,yB;MAAA,uD;MAA  
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MAAQ,c;;Qzlu4Y7C,Q;QAahB,wBAAgB,SAAhB,gB;UAAgB,cAAA,SAAhB,M;UAAsB,IAAc,OyIv4Y+B,czlu4  
Y7C,C;YAAwB,aAAO,I;YAAP,e;;QAC9C,aAAO,K;;MyIx4Y8C,iB;K;sDAErD,wC;MACI,KAak,qBAAL,SAA  
K,EAAC,MAAd,EAAsB,SAAtB,CAAL,C;QAAyC,M;MAEzC,YAAY,SAAK,M;MACjB,OAAO,aAAP,C;QACI,K  
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wC;MASgB,IAAiB,IAAjB,EA2BE,M;MAnCd,aAAO,gBAAO,MAAP,CAAE,gBAAO,SAAP,C;MACtB,gBAAgB,  
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,2D;MACZ,IAAI,aAAJ,C;QvHyBG,SuHxBwB,WAAAN,KAAM,EAAQ,SAAR,C;QAAvB,iBAAoD,KAak,CAAT,  
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AAc,CAAIb,C;YAAA,SAAqB,C;;YxG0+BpC,U;YADhB,YAAY,C;YACI,oBwG1+B+C,SxG0+B/C,C;YAAhB,O  
AAgB,gBAAhB,C;cAAGB,sC;cAAM,IwG1+BgE,UxG0+BiD,oBwG1+BkD,MAAK,ExG0+BrE,C;gBAAwB,qB;;  
YwG1+Bf,SAA4B,IxG2+BpD,KwG3+BoD,I;;UAA/C,yB;U1GyrCC,kB;UADb,YAAY,C;UACC,S0GxrCK,aAAN,  
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B,U0GvrCN,gBAAJ,C;cAA2B,aAAO,uB;YACIC,aAAO,gB1GsrCgC,I0GtrChC,CAAA,gBAAO,IAAP,C;;UAGxB  
,aAAO,gBAAO,KAAP,CAAc,gBAAO,IAAP,C;;QAGzB,aAAO,gBAAO,SAAP,CAakB,gBAAO,IAAP,C;;MAG7  
B,iBAAiB,mC;MACjB,IpIyHoD,CoIzHhD,UpIyHiD,UoIzHrD,C;QACI,uBAAuB,SAAS,M;QACtB,8B;QAAV,OA  
AU,gBAAV,C;UAAU,qB;UACJ,qBAAF,CAAE,EAAC,gBAAAd,EAAgC,cAAhC,C;;MAGV,OAAO,I;K;yDAGX,6  
B;MAIwB,Q;MAHpB,mBAAwB,C;MACxB,gBAAqB,C;MACrB,mBAAwB,C;MACJ,OtHyIjB,MAAO,KsHzIjB,  
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AA/B,C,K;;yHC/H+C,Y;MAAQ,W;K;IAEtE,gD;MACkB,UAMP,M;MANO,IAAI,aAAY,CAAhB,C;QACV,Y;;Q  
AEA,UxBuZ8C,MAAW,KwBvZ/C,IxBuZ+C,EwBvZtC,QxBuZsC,C;QwBtZzD,OAAA,IAAO,OxB2UmC,MAAW  
,KwB3UpC,KxB2UoC,CwB3UxC,GAAa,GAAnB,CAAP,GAAiC,GAAjC,GxBwV2C,WwBxVC,KxBwVD,C;;Mw  
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Y,SAAQ,QAAR,C;;QAGpB,exBoU0C,MAAW,KwBpU1C,OxBuUkC,C;QwBnUrD,qBAA8B,QAAY,axBgRC,MA  
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,MAHR,C;MAIA,2DAGM,MAHN,C;MAIA,yDAGK,OAHL,C;K;;IAxBA,gD;MAAA,yB;MAAA,wC;K;;IAIA,iD;  
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B,Y;MAHZ,W;K;IAOJ,oE;MAGW,Q;MADP,0BAA2C,iBAAjB,UAAW,cAAM,EAAU,UAAW,cAARb,C;MAEvC  
,0BAAsB,CAAtB,C;QAA2B,sBAA8C,uBAArC,UAAW,cAAX,GAAMb,UAAW,cAAO,CAA9C,C;WAC3B,0BA  
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,C;M4IsCM,S5I6DN,OAAI,CAAJ,C;mB4I5DY,eAAQ,SAAR,OAAQ,gBAAR,yB;MAAV,S5IvCF,OAAI,CAAJ,C;  
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AkC,4BAAa,IAAb,EAAMB,GAAmB,EAAwB,GAAxB,kBAA6B,wCAA7B,C;K;2CAIIC,Y;MAI4C,uBAAgB,IAA  
hB,C;K;mDAE5C,iB;MAI4D,yBAAgB,IAAhB,EAAsB,KAAtB,C;K;;IC/BhE,8B;MAAA,e;MAAA,iB;MAAA,uB;  
K;IAAA,4B;MAAA,+B;O;MACI,4C;MACA,kD;MACA,0C;MACA,8C;K;;IAHA,mC;MAAA,kB;MAAA,2B;K;;I  
ACA,sC;MAAA,kB;MAAA,8B;K;;IACA,kC;MAAA,kB;MAAA,0B;K;;IACA,oC;MAAA,kB;MAAA,4B;K;;IAJJ,  
wB;MAAA,sH;K;;IAAA,6B;MAAA,a;aAAA,O;UAAA,gC;aAAA,U;UAAA,mC;aAAA,M;UAAA,+B;aAAA,Q;U  
AAA,iC;;UAAA,6D;;K;;IAOA,4B;MAKI,mD;MACA,2BAA4B,I;K;yCAE5B,Y;MAEiB,IAAN,I;MzJUX,IAAI,Ey  
JXQ,mDzJWR,CAAJ,C;QACI,cAda,qB;QAeb,MAAM,gCAAyB,OAAQ,WAAjC,C;;MyJZC,QAAM,oBAAN,M;a  
ACH,M;UAAc,Y;UAAAd,K;aACA,O;UAAe,W;UAAf,K;;UACQ,wC;UAHL,K;;MAAP,W;K;sCAOJ,Y;MAIW,Q;  
MAHP,IAAI,CAAC,cAAL,C;QAAgB,MAAM,6B;MActB,mD;MAEA,OAAO,2F;K;4DAGX,Y;MACI,iD;MACA,  
kB;MACA,OAAO,kD;K;+CAeX,iB;MAII,2BAAY,K;MACZ,gD;K;sCAGJ,Y;MAII,+C;K;;ICjDkC,wB;MAoFtC,o  
C;MApFgE,6B;K;sCAIhE,Y;MAAuC,0C;K;2CAEvC,mB;MAAwD,uB;;QpJoU3C,Q;QADb,YAAy,C;QACC,sB;  
QAAb,OAAa,cAAb,C;UAAa,sB;UACT,IoJrUmE,OpJqUrD,IoJrUqD,UpJqUnE,C;YACI,sBAAO,K;YAAP,wB;;U  
ACJ,qB;;QAEJ,sBAAO,E;;MoJzUiD,0B;K;+CAExD,mB;MAA4D,sB;;QpJ6V5D,eAAoB,0BAAa,SAAb,C;QACp  
B,OAAO,QAAS,cAAhB,C;UACI,IoJ/VsE,OpJ+VxD,QAAS,WoJ/V+C,UpJ+VtE,C;YACI,qBAAO,QAAS,Y;YAA  
hB,uB;;QAGR,qBAAO,E;;MoJnWqD,yB;K;0CAE5D,Y;MAA+C,+CAAiB,CAAjB,C;K;kDAE/C,iB;MAAyD,+C  
AAiB,KAAjB,C;K;6CAEzD,8B;MAA8D,gCAAQ,IAAR,EAAC,SAAd,EAAYB,OAAzB,C;K;IAEiC,wD;MAAGf,u  
B;MAA/E,kB;MAAmC,4B;MAC5D,eAAyB,C;MAGrB,+DAAKB,gBAAIB,EAA6B,OAA7B,EAAc,WAAK,KA  
A3C,C;MACA,eAAa,UAAU,gBAAV,I;K;iDAGjB,iB;MACI,+DAAKB,KAAIB,EAAyB,YAAzB,C;MAEA,OAAO,  
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,OAAO,I;MAC3B,IAAI,2BAAJ,C;QAAuB,OAAO,K;MAE9B,OAAO,2DAAC,IAAd,EAAoB,KAApB,C;K;sCAG X,Y;MAG+B,oEAAgB,IAAhB,C;K;IAE/B,2C;MAAA,oB;MACI,eACsB,C;K;kDAEtB,Y;MAAkC,sBAAQ,gB;K; +CAE1C,Y;MAEe.gB;MADX,IAAI,CAAC,cAAL,C;QAAgB,MAAM,6B;MACX,iE;MAAX,OAAO,+B;K;;IAO0 B,sD;MAHzC,oB;MAGwD,iD;MAGhD,gEAAMb,KAAAnB,EAA0B,WAakB,KAA5C,C;MACA,eAAa,K;K;0DAG jB,Y;MAAsC,sBAAQ,C;K;wDAE9C,Y;MAAgC,mB;K;uDAEhC,Y;MACI,IAAI,CAAC,kBAAL,C;QAAoB,MAA M,6B;MAC1B,OAAO,yBAAL,mCAAJ,EAAI,YAAJ,E;K;4DAGX,Y;MAAoC,sBAAQ,CAAR,I;K;;IAGxC,kC;MA AA,sC;K;iEACI,uB;MACI,IAAI,QAAQ,CAAR,IAAa,SAAS,IAA1B,C;QACI,MAAM,8BAA0B,YAAS,KAAT,gB AAuB,IAAjD,C;;K;kEAIId,uB;MACI,IAAI,QAAQ,CAAR,IAAa,QAAQ,IAAzB,C;QACI,MAAM,8BAA0B,YAAS, KAAT,gBAAuB,IAAjD,C;;K;iEAIId,oC;MACI,IAAI,YAAAY,CAAZ,IAAiB,UAAU,IAA/B,C;QACI,MAAM,8BAA 0B,gBAAa,SAAb,mBAAkC,OAAIC,gBAaKd,IAA5E,C;;MAEV,IAAI,YAAAY,OAAhB,C;QACI,MAAM,gCAAYB ,gBAAa,SAAb,oBAAMC,OAA5D,C;;K;kEAIId,sC;MACI,IAAI,aAAa,CAAb,IAAkB,WAAW,IAAjC,C;QACI,MA AM,8BAA0B,iBAAC,UAAAd,oBAAqC,QAArC,gBAAsD,IAAhF,C;;MAEV,IAAI,aAAa,QAAjB,C;QACI,MAAM,g CAAYB,iBAAC,UAAAd,qBAAsC,QAA/D,C;;K;+DAId,a;MAEc,UACsB,M;MAFhC,iBAAE,C;MACL,mB;MAAV ,OAAU,cAAV,C;QAAU,mB;QACN,aAAW,MAAK,UAAAL,SAAiB,6DAAiB,CAAlC,K;;MAEf,OAAO,U;K;6DAG X,oB;MAIiB,Q;MAHb,IAAI,CAAE,KAAF,KAAU,KAAM,KAApB,C;QAA0B,OAAO,K;MAEjC,oBAAoB,KAA M,W;MACb,mB;MAAb,OAAa,cAAb,C;QAAa,sB;QACT,gBAAGB,aAAc,O;QAC9B,IAAI,cAAQ,SAAR,CAAJ,C; UACI,OAAO,K;;MAGf,OAAO,I;K;;IAjDf,8C;MAAA,6C;QAAA,4B;;MAAA,sC;K;;ICnFwC,uB;MAyHxC,mC; MAzCA,uBAC6B,I;MAMC7B,yBACsC,I;K;8CAnHtC,e;MACI,OAAO,6BAAC,GAAd,S;K;gDAGX,iB;MAAwE,g BAAR,Y;MAAQ,c;;QrJwrDxD,Q;QADhB,IAAI,wCAAsB,mBAA1B,C;UAAqC,aAAO,K;UAAP,e;;QACrB,2B;Q AAhB,OAAgB,cAAhB,C;UAAgB,yB;UAAM,IqJxrDwD,OrJwrD1C,OqJxrD6C,MAAH,QrJwrDxD,C;YAAwB,aA AO,I;YAAP,e;;QAC9C,aAAO,K;;MqJzrDyD,iB;K;kDAEhE,iB;MAEI,IAAI,gCAAJ,C;QAA+B,OAAO,K;MACt C,UAAU,KAAM,I;MACHB,YAAAY,KAAM,M;MpKkNO,Q;MoKINzB,epKkN4C,CAAnB,mDAAMB,YoKINzB, GpKkNyB,C;MoKhN5C,IAAI,eAAS,QAAT,CAAJ,C;QACI,OAAO,K;;MAIP,6B;MAAA,W;QpK4NqB,U;QoK5N D,UpK4NoB,CAAnB,uDAAMB,oBoK5NP,GpK4NO,C;;MoK5N5C,W;QACI,OAAO,K;;MAGX,OAAO,I;K;mCA IX,iB;MAMI,IAAI,UAAU,IAAd,C;QAAoB,OAAO,I;MAC3B,IAAI,0BAAJ,C;QAAyB,OAAO,K;MACHC,IAAI,c AAQ,KAAM,KAAIB,C;QAAwB,OAAO,K;MAEV,gBAAd,KAAM,Q;MAAQ,c;;QrJmoDT,Q;QADhB,IAAI,wCA AsB,mBAA1B,C;UAAqC,aAAO,I;UAAP,e;;QACrB,2B;QAAhB,OAAgB,cAAhB,C;UAAgB,yB;UAAM,IAAI,CqJ noDK,2BrJmoDM,OqJnoDN,CrJmoDT,C;YAAyB,aAAO,K;YAAP,e;;QAC/C,aAAO,I;;MqJpoDH,iB;K;sCAGJ,e ;MAAwC,Q;MAAA,4CAAC,GAAd,8B;K;qCAGxC,Y;MAK+B,OAAQ,SAAR,YAAQ,C;K;oCAEvC,Y;MAAkC,q BAAQ,C;K;mFACnB,Y;MAAQ,OAAA,YAAQ,K;K;IAWnB,0E;MAAA,wC;MAAS,sB;K;8EACb,mB;MAAsD,+ CAAY,OAAZ,C;K;IAI3C,sG;MAAA,kD;K;8FACH,Y;MAAkC,OAAA,0BAAC,U;K;2FACHD,Y;MAAyB,OAAA, 0BAAC,OAAO,I;K;;wEAJtD,Y;MACI,oBAAoB,6BAAQ,W;MAC5B,+F;K;sHAMmB,Y;MAAQ,OAAA,qBAAiB, K;K;;mFAB5D,Y;MACI,IAAI,4BAAJ,C;QACI,+E;;MacJ,OAAO,mC;K;IAOwD,uD;MAAA,qB;QAAE,2CAAS,E AAT,C;O;K;qCAAzE,Y;MAAkC,OAAQ,eAAR,YAAQ,EAAa,IAAb,EAAmB,GAAnB,EAAwB,GAAXB,kBAA6B ,iCAA7B,C;K;+CAE1C,iB;MAAuD,+BAAS,KAAM,IAAf,IAAsB,GAAtB,GA4B,wBAAS,KAAM,MAAF,C;K;+ CAEnF,a;MAAwC,OAAI,MAAM,IAAV,GAAGB,YAAhB,GAAoC,SAAF,CAAE,C;K;IAWtD,4E;MAAA,wC;MA AS,6B;K;gFACf,mB;MAAsE,iDAAC,OAAd,C;K;IAI3D,wG;MAAA,kD;K;gGACH,Y;MAAkC,OAAA,0BAAC,U; K;6FACHD,Y;MAAyB,OAAA,0BAAC,OAAO,M;K;;0EAJtD,Y;MACI,oBAAoB,6BAAQ,W;MAC5B,iG;K;wHA MmB,Y;MAAQ,OAAA,qBAAiB,K;K;;qFAB5D,Y;MACI,IAAI,8BAAJ,C;QACI,mF;;MacJ,OAAO,qC;K;oDAMf, e;MAA8D,gBAAR,Y;MAAQ,sB;;QrJmJ9C,Q;QAAA,2B;QAAhB,OAAgB,cAAhB,C;UAAgB,yB;UAAM,IqJnJsD ,OrJmJxC,OqJnJ2C,IAAH,MrJmJtD,C;YAAwB,qBAAO,O;YAAP,uB;;QAC9C,qBAAO,I;;MqJpJ+C,yB;K;IAEt D,iC;MAAA,qC;K;4DAEI,a;MAAiE,gC;MAAX,OAAU,CAAC,kBAAN,CAAM,0DAAMB,CAApB,KAA4B,oBA AjC,CAAIc,8DAAqB,CAAjD,C;K;4DACHe,a;MAAyD,OAAU,SAAL,CAAO,IAAF,mBAAL,CAAY,MAAP,C;K; 0DACnE,oB;MACI,IAAI,gCAAJ,C;QAA+B,OAAO,K;MACtC,OAAO,OAAA,CAAE,IAAF,EAAS,KAAM,IAAf, KAAsB,OAAA,CAAE,MAAF,EAAW,KAAM,MAAjB,C;K;;IANrC,6C;MAAA,4C;QAAA,2B;;MAAA,qC;K;;IC hIqC,uB;MAKBrC,mC;MAIB+D,6B;K;mCAE/D,iB;MAMI,IAAI,UAAU,IAAd,C;QAAoB,OAAO,I;MAC3B,IAAI, 0BAAJ,C;QAAsB,OAAO,K;MAC7B,OAAO,sDAAU,IAAV,EAAGB,KAAhB,C;K;qCAGX,Y;MAG+B,qEAAkB,I AAIB,C;K;IAE/B,iC;MAAA,qC;K;gEACI,a;MAEoB,Q;MADhB,iBAAE,C;MACC,mB;MAAhB,OAAgB,cAAhB,

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D,Y;MAMsC,iB;K;wCANtC,Y;MAM6D,iB;K;0CAN7D,wB;MAAA,wBAMsC,qCANtC,EAM6D,qCAN7D,C;K;s  
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0KvTX,+B;K;IAGJ,8C;MAUQ,kBADE,SACF,kB;QADJ,OACkC,YAAT,SAAK,IAAI,EAAY,YAAZ,C;;QADIC,O  
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+B,OAAI,SAAJ,QAAL,C;K;4CACnC,Y;MAAkC,OAAA,QAAL,W;K;0FACf,Y;MAAQ,OAAA,QAAL,K;K;2CACn  
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C,0B;K;4EAA3C,Y;MAAA,yB;K;iDAC1C,iB;MAA4C,OAAI,OA AJ,QA AI,EAAO,KAAP,C;K;mDACHD,Y;MA  
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;MAA4C,oCAAsB,KAAM,U;K;kCACxE,Y;MAA+B,Q;K;kCAC/B,Y;MAAkC,W;K;gFAEX,Y;MAAQ,Q;K;iCAC  
/B,Y;MAAkC,W;K;2CAEIC,e;MAA+C,Y;K;6CAC/C,iB;MAAsD,Y;K;mCACtD,e;MAAwC,W;K;mFACY,Y;MA  
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;uFA2BA,yB;MgBnCA,uE;MhBmCA,0C;QgB/ByC,gBAA9B,mBhBsDiB,QgBtDjB,C;QhBsD2B,aY7FIC,W;QZ6  
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;Uf90Ba,We+0Bb,aAAGB,Of/0Be,Ie+0B/B,Ef7xB2C,Se6xBjB,CAAe,OAAf,CAA1B,C;;Qf7xBhB,OAID6B,W;O;  
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AAZ,EAAwB,OAAF,CAAE,CAAxB,C;K;;;IAFIC,2C;MAAA,0C;QAAA,yB;;MAAA,mC;K;;IAUiB,uC;MA8BjB,gC;MA9BmD,0BAAE,KAAf,EAAxB,YAAtB,EAAoC,CAAPC,C;K;iFAC3B,Y;MAAQ,iB;K;wFACD,Y;MAAQ,gB;K;wFAKR,Y;MAC3B,IAAI,cAAQ,UAAZ,C;QOIFyC,MAAM,6BPjFd,6EOIF4C,WAA9B,C;;MPHF/C,OAAO,YAAO,CAAP,I;K;0CAGX,iB;MAA6C,qBAAS,KAAT,IAAkB,SAAS,S;K;iCAExE,Y;MAKkC,oBAAQ,S;K;gCAE1C,iB;MACI,0CAAsB,kBAaA,KAAM,UAAAnB,KACtB,eAAS,KAAM,MAAf,IAAwB,cAAQ,KAAM,KADhB,CAAtB,C;K;kCAGJ,Y;MACI,OAAI,cAAJ,GAAe,EAAf,GAAwB,MAAK,UAAAL,QAAa,SAAb,I;K;kCAE5B,Y;MAAKC,OAAE,UAAF,qBAAU,S;K;IAE5C,8B;MAAA,kC;MACI,aAC6B,aAAS,CAAT,EAAY,CAAZ,C;K;;;IAFjC,0C;MAAA,yC;QAAA,wB;;MAAA,kC;K;;IAUkB,wC;MA8BIB,iC;MA9BsD,2BAAGB,KAAhB,EAAuB,YAAvB,K;K;kFAC7B,Y;MAAQ,iB;K;yFACD,Y;MAAQ,gB;K;yFAKR,Y;MAC5B,IAAI,2CAAJ,C;QOyCyC,MAAM,6BPzCb,6EOyC2C,WAA9B,C;;MPxC/C,OAAO,kCAAQ,CAAP,E;K;2CAGX,iB;MAA8C,kCAAS,KAAT,UAAkB,sBAAS,SAAT,M;K;kCAEhE,Y;MAKkC,kCAAQ,SAAR,K;K;iCAE1C,iB;MACI,2CAAuB,kBAaA,KAAM,UAAAnB,KACvB,mBAAS,KAAM,MAAf,KAAwB,kBAAQ,KAAM,KAAd,CADD,CAAvB,C;K;mCAGJ,Y;MACI,OAAI,cAAJ,GAAe,EAAf,GAAwB,iCAAM,eAAW,8BAAW,EAAX,CAAX,CAAN,MAAoC,cAAU,6BAAU,EAAY,CAAV,CAApC,CAA8D,Q;K;mCAE1F,Y;MAAKC,OAAE,UAAF,qBAAU,SAAV,W;K;IAE1C,+B;MAAA,mC;MACI,aAC8B,qB;K;;;IAFIC,2C;MAAA,0C;QAAA,yB;;MAAA,mC;K;;ImM9GkC,oD;MAA2C,uB;MAAjB,gB;MAC5D,sBAAGC,I7Kmcu,I;M6KIC1C,iBAAmC,YAAO,CAAX,GAAc,SAAS,IAAvB,GAAiC,SAAS,I;MACzE,cAA4B,cAA5B,GAaQc,K7KiCK,I6KjC1C,GAaQd,mB;K;gDAErD,Y;MAAKC,qB;K;iDAE1C,Y;MACI,YAAy,W;MACZ,IAAI,UAA S,mBAAb,C;QACI,IAAI,CAAC,cAAL,C;UAAc,MAAa,6B;QAC3B,iBAAU,K;;QAGV,4BAAQ,SAAR,I;;MAEJ,OAAa,OAAN,KAAM,C;K;;IAQgB,mD;MAAyC,sB;MAAjB,gB;MACzD,sBAAGC,I;MACHc,iBAAmC,YAAO,CAAX,GAAc,SAAS,IAAvB,GAAiC,SAAS,I;MACzE,cAA4B,cAAJ,GAAa,KAAb,GAAwB,mB;K;+CAEhD,Y;MAAKC,qB;K;+CAE1C,Y;MACI,YAAy,W;MACZ,IAAI,UAA S,mBAAb,C;QACI,IAAI,CAAC,cAAL,C;UAAc,MAAa,6B;QAC3B,iBAAU,K;;QAGV,4BAAQ,SAAR,I;;MAEJ,OAAO,K;K;;IAQuB,oD;MAA4C,uB;MAA1B,gB;MAC5D,sBAAiC,I;MACjC,iBAAmC,uBAAO,CAAX,GAAc,sBAAS,IAAT,MAAd,GAAiC,sBAAS,IAAT,M;MACHe,cAA6B,cAAJ,GAAa,KAAb,GAAwB,mB;K;gDAEjD,Y;MAAKC,qB;K;iDAE1C,Y;MACI,YAAy,W;MACZ,IAAI,cAA S,mBAAT,CAAJ,C;QACI,IAAI,CAAC,cAAL,C;UAAc,MAAa,6B;QAC3B,iBAAU,K;;QAGV,8BAAQ,SAAR,C;;MAEJ,OAAO,K;K;;IC9DX,oD;MA6CA,uC;MAtCI,IAAI,SAAQ,CAAZ,C;QAAe,MAAa,gCAAyB,wBAAzB,C;MAC5B,IAAI,SAAQ,WAAZ,C;QAA2B,MAAa,gCAAyB,wEAAzB,C;MAG5C,aAGyB,K;MAEzB,YAGuF,OAA/D,0BAA0B,K9KeR,I8KfIB,EAAc,Y9KepB,I8KfIB,EAAyD,IAAzD,CAA+D,C;MAEvF,YAGuB,I;K;yCAEvB,Y;MAAwC,mCAAwB,UAAxB,EAA+B,SAA/B,EAAqC,SAArC,C;K;wCAExC,Y;MAMqC,OAAI,YAAO,CAAX,GAAc,aAAQ,SAAtB,GAAgC,aAAQ,S;K;uCAE7E,iB;MACI,iDAA6B,kBAaA,KAAM,UAAAnB,KAC7B,eAAS,KAAM,MAAf,IAAwB,cAAQ,KAAM,KAAtC,IAA8C,cAAQ,KAAM,KAD/B,CAA7B,C;K;yCAGJ,Y;MACI,OAAI,cAAJ,GAAe,EAAf,GAAwB,OAAM,OAAK,U9KPG,I8KOR,UAAkB,S9KPV,I8KOR,KAAN,SAAqC,SAArC,I;K;yCAE5B,Y;MAAKC,OAAI,YAAO,CAAX,GAAc,oBAAE,UAAF,+BAAU,SAAV,eAAqB,SAAnC,GAA8C,oBAAE,UAAF,qCAAgB,SAAhB,gBAA4B,CAAC,SAAD,IAA5B,C;K;IAEhF,qC;MAAA,yC;K;kEACI,sC;MAQ2F,2BAAGB,UAAhB,EAA4B,QAA5B,EAAc,IAAtC,C;K;;IAT/F,iD;MAAA,gD;QAAA,+B;;MAAA,yC;K;;IAiBA,mD;MA6CA,sC;MAtCI,IAAI,SAAQ,CAAZ,C;QAAe,MAAa,gCAAyB,wBAAzB,C;MAC5B,IAAI,SAAQ,WAAZ,C;QAA2B,MAAa,gCAAyB,wEAAzB,C;MAG5C,aAGwB,K;MAExB,YAGuB,0BAA0B,KAA1B,EAAiC,YAAjC,EAA+C,IAA/C,C;MAEvB,YAGuB,I;K;wCAEvB,Y;MAAuC,kCAAuB,UAAvB,EAA8B,SAA9B,EAAoC,SAAPC,C;K;uCAEvC,Y;MAMqC,OAAI,YAAO,CAAX,GAAc,aAAQ,SAAtB,GAAgC,aAAQ,S;K;sCAE7E,iB;MACI,gDAA4B,kBAaA,KAAM,UAAAnB,KAC5B,eAAS,KAAM,MAAf,IAAwB,cAAQ,KAAM,KAAtC,IAA8C,cAAQ,KAAM,KADhC,CAA5B,C;K;wCAGJ,Y;MACI,OAAI,cAAJ,GAAe,EAAf,GAAwB,OAAM,MAAK,UAAAL,QAAa,SAAb,IAAN,SA A2B,SAA3B,I;K;wCAE5B,Y;MAAKC,OAAI,YAAO,CAAX,GAAgB,UAAF,qBAAU,SAAV,cAAqB,SAAnC,GAAGd,UAAF,2BAAGB,SAAhB,eAA4B,CAAC,SAAD,IAA5B,C;K;IAEhF,oC;MAAA,wC;K;iEACI,sC;MAQwF,0BAAe,UAAf,EAA2B,QAA3B,EAAqC,IAArC,C;K;;IAT5F,gD;MAAA,+C;QAAA,8B;;MAAA,wC;K;;IAiBA,oD;M A6CA,uC;MAtCI,IAAI,gBAAJ,C;QAAgB,MAAa,gCAAyB,wBAAzB,C;MAC7B,IAAI,sCAAJ,C;QAA4B,MAAa,gCAAyB,yEAAzB,C;MAG7C,aAGyB,K;MAEzB,YAGwB,4BAA0B,KAA1B,EAAiC,YAAjC,EAA+C,IAA/C,C;MAExB,YAGwB,I;K;yCAExB,Y;MAAwC,mCAAwB,UAAxB,EAA+B,SAA/B,EAAqC,SAArC,C;K;wCAExC,Y;MAMqC,OAAI,uBAAO,CAAX,GAAc,2BAAQ,SAAR,KAAd,GAAgC,2BAAQ,SAAR,K;K;uCAErE,iB;MACI,iD

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AA,+B;;MAAA,yC;K;;;6CCIKa,iB;MAKkD,+BAAS,UAAT,UAAkB,wBAAS,iBAAT,M;K;oCAEpE,Y;MAKgC,  
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AcR,gD;MAI3B,gBAAqB,K;MACrB,uBAA4B,Y;K;0FACD,Y;MAAQ,oB;K;iGACD,Y;MAAQ,2B;K;2DAE1C,g  
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Y;MAAkC,OAAE,aAAf,sBAAY,oB;K;;IAGID,uC;MAO4E,8BAAmB,SAAnB,EAAyB,IAAZB,C;K;IAQ9C,+C;M  
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Z,C;K;wCAEIC,iB;MACI,OAAO,2CAA8B,kBAaA,KAAM,UAAAnB,KAC7B,kBAAU,KAAM,SAAhB,IAA0B,yB  
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AQ,oB;K;0CAC1E,Y;MAAkC,SAAE,gBAAS,oBAAX,C;K;yCAEIC,iB;MACI,OAAO,4CAA+B,kBAaA,KAAM,  
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kC,OAAE,aAAf,sBAAY,oB;K;;IAGID,uC;MAOyE,6BAAkB,SAAlB,EAAwB,IAAxB,C;K;oFAGzE,8B;MAQI,0  
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,yC;MACI,YAGqC,oBAAgB,IAAhB,EAAhB,IAAtB,C;K;iGAQJ,Y;MAAQ,gB;K;4DAEzC,gB;MAOI,8DAAqC,I  
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;;IAVA,2C;MAAA,sB;MAAA,mC;K;;IAKA,oC;MAAA,sB;MAAA,4B;K;;IAKA,qC;MAAA,sB;MAAA,6B;K;;IA  
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D;;K;;6ECAA,yB;MAAA,4F;MAAA,2B;QASI,MAAM,mCAA8B,0EAA9B,C;O;KATV,C;ICkCA,+D;MAAw,Q;  
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7EhB,+B;MAY6B,kBAaIB,QAAQ,SAAR,EAAc,EAAd,C;MACH,IX0EE,WW1EE,GAAK,CAAT,C;QAAy,MA  
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B,SFrMyB,CAAY,cAfrB,YAAY,CAAZ,CEoNhB,KFrMyB,oBEqMI,UFrMJ,CAAY,cAfrB,YAAY,CAAZ,C;;MEo  
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,E;MAAI,4B;QAAA,eAAuB,G;MrMEnF,IAAI,CmBwR+C,CAAC,QkLzR5C,YILyR4C,CnBxRpD,C;QACI,cqMFi  
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ES,C;M/Lg7CT,kBAAoB,gB;MAwSd,gB;MADb,YAAY,C;MACC,O+LnyDN,O/LmyDM,W;kBAAb,OAAa,cAAb  
,C;QAAa,sB;QA9RsB,U;QAAA,cA8RT,oBAAMB,cAAnB,EAAMB,sBAAnB,U;Q+LntDIB,kB;;YAHA,CAAC,Y  
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qC,IYjrDrC,YAAK,OAAL,EmLjHqC,CAAG,CnLiHtD,C;gBACI,sBAAO,O;gBAAP,wB;;YAGR,sBAAO,E;;Um  
LrHH,iD;UAGI,gCAA2B,EAA3B,C;YAHJ,2BAGqC,I;IBACjC,IAAK,a/L8xD0C,I+L9xD1C,gBAAyB,uBAAzB,C  
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AY,WAAL,OAAJ,C;;M+L9wBrD,kB/L+wBE,W;MAMrBA,oBAAM,iBAAa,qCAAwB,EAAXB,CAAb,C;MAuEA,  
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Ac,MAAa,6B;QAC3B,iBAAU,K;;QAEV,cnO1D6C,SmO0D7C,WnO1DuD,KAAK,GmO0DpD,WnO1D+D,KAA  
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;K;sGAsBA,yB;MIB+RA,WAS6D,wB;MAT7D,+B;MkBvQA,gD;MAxBA,wB;QAM0D,OAYBS,aAAa,IAAK,KA  
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,yB;MjBmSA,kBAS6D,sB;MAT7D,+B;MiB3RA,gD;MARA,wB;QAMyD,OASU,aAAa,IAAK,KAAIB,EAA8B,Cj  
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,gD;MAAA,wB;QAOMe,oBAAa,IAAK,KAAIB,EAAwB,KAAM,KAA9B,C;O;KAPnE,C;4FASA,yB;MIB8PA,W  
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,KAAAtB,CD/MiB,ECsDmB,KDtDnB,C;O;KcGdPpD,C;sGAOA,yB;MAyJA,aAS6D,0B;MAT7D,+B;MgB/MA,8C; MhBsDA,wB;QAMkD,OgB1DI,YhBsNjB,eAAW,oBAAL,SAAK,CAAL,YAAN,CgBtNiB,EhB0DoB,KgB1DpB,C ;O;KhBoDtD,C;4FAQA,yB;MAuIA,6B;MDnLA,kD;MDiPJ,0B;MAAA,+B;MErMI,wB;QAQ6C,OFwMR,eAAW, OCtPI,cCsLjB,cAAU,SAAL,GAAiB,KAAAtB,CDtLiB,EDqLjB,cEvI4B,KFuIIB,KAAL,GAAiB,GAAAtB,CCrLiB,C A4Lf,KD0DW,CAAX,C;O;KEhNrC,C;4FASA,yB;MA8HA,6B;MDnLA,kD;MCKPJ,4B;MAAA,iC;MA7LI,wB;Q AQ+C,OAgMR,gBAAY,QDvPC,cCsLjB,cAAU,SAAL,GAAiB,KAAAtB,CDtLiB,ECsLjB,cA/H8B,KA+HpB,KAA L,GAAiB,KAAAtB,CDtLiB,CAsMb,KCiDY,CAAZ,C;O;KAXMvC,C;4FASA,yB;MAqHA,6B;MDnLA,kD;MC8DA ,wB;QAQ2C,ODhES,cCsLjB,cAAU,SAAL,GAAiB,KAAAtB,CDtLiB,ECgES,KDhET,C;O;KCwDpD,C;4FASA,yB; MAsHA,aAS6D,0B;MAT7D,+B;MgBtLA,oD;MhBgEA,wB;QAQ6C,OgBIES,ehByLjB,eAAW,oBAAL,SAAK,CA AL,YAAN,CgBzLiB,EhBkEU,KgBIEV,C;O;KhB0DtD,C;4EAUA,yB;MAAA,4B;MAAA,iC;MAAA,mB;QAM2C, uBAAY,QAAL,SAAK,KAAZ,C;O;KAN3C,C;4EAQA,yB;MAAA,4B;MAAA,iC;MAAA,mB;QAM2C,uBAAY,Q AAL,SAAK,KAAZ,C;O;KAN3C,C;oGAQA,yB;MAAA,8C;MAkFA,6B;MAIFA,wB;QAE+D,0BAyF5B,cAAU,S AAL,GAAiB,KAAAtB,CAzF4B,EAyF5B,cAzFqD,KAyF3C,KAAL,GAAiB,KAAAtB,CAzF4B,C;O;KAF/D,C;0GAI A,yB;MAAA,yC;MA8EA,6B;MA9EA,wB;QAQkE,aA+E/B,cAAU,SAAL,GAAiB,KAAAtB,CA/E+B,EA+E/B,cA/E mD,KA+EzC,KAAL,GAAiB,KAAAtB,CA/E+B,C;O;KARIE,C;4FAUA,yB;MAAA,iC;M4L7NJ,4B;M5L6NI,wB;Q AEqD,uB4L5NiC,Q5L4N1B,IAAK,K4L5NX,G5L4NoB,KAAM,K4L5NM,C5L4NjC,C;O;KAFrD,C;0FAGA,yB; MAAA,iC;M4L3NJ,4B;M5L2NI,wB;QAEoD,uB4L1NgC,Q5L0NzB,IAAK,K4L1NX,G5L0NmB,KAAM,K4L1N M,C5L0NhC,C;O;KAFpD,C;4FAGA,yB;MAAA,iC;M4LzNJ,4B;M5LyNI,wB;QAEqD,uB4LxNiC,Q5LwN1B,IAA K,K4LxNX,G5LwNoB,KAAM,K4LxNM,C5LwNjC,C;O;KAFrD,C;4EAGA,yB;MAAA,iC;M4LvNJ,4B;M5LuNI, mB;QAEkC,uB4LtnsB,QAAP,C5LsNR,S4LtnE,C5LsntB,C;O;KAFIC,C;kFAIA,yB;MAAA,0B;MAAA,mB;QAU mC,OAAK,OAAL,SAAK,C;O;KAVxC,C;oFAWA,Y;MASqC,gB;K;gFACrC,Y;MASiC,OAAK,SAAL,GAAiB,K; K;kFACID,yB;MAAA,aASqD,0B;MATrD,mB;QASmC,OAAK,oBAAL,SAAK,CAAL,Y;O;KATnC,C;oFAWA,y B;MF+DJ,0B;MAAA,+B;ME/DI,mB;QASqC,OFiEE,eAAW,OEjEb,SFiEa,CAAX,C;O;KE1EvC,C;sFAUA,Y;MA EuC,W;K;kFACvC,yB;MAAA,6B;MAAA,mB;QASmC,qBAAU,SAAL,GAAiB,KAAAtB,C;O;KATnC,C;oFAUA,y B;MAAA,aAS6D,0B;MAT7D,+B;MAAA,mB;QASqC,sBAAW,oBAAL,SAAK,CAAL,YAAN,C;O;KATrC,C;oFA WA,Y;MAMqC,OApDC,SAAL,GAAiB,K;K;sFAqDID,Y;MAMuC,OA3DD,SAAL,GAAiB,K;K;gCA6DID,Y;MA AyC,OAAQ,CA7DX,SAAL,GAAiB,KA6DD,Y;K;,,,gCarVrD,Y;MAAA,c;MAGuG,qD;MAHvG,a;K;8BAAA,iB; MAAA,2IAGuG,oCAHvG,G;K;0EAyVA,yB;MAAA,iC;MAAA,4B;QAW4C,uBAAY,SAAZ,C;O;KAX5C,C;4EA YA,yB;MAAA,iC;MAAA,4B;QAU6C,uBAAO,SAAP,C;O;KAV7C,C;4EAWA,yB;MAAA,4B;MAAA,iC;MAAA, 4B;QAW2C,uBAAY,QAAL,SAAK,CAAZ,C;O;KAX3C,C;4EAYA,yB;MAAA,4B;MAAA,iC;MAAA,4B;QAW4 C,uBAAY,QAAL,SAAK,SAAZ,C;O;KAX5C,C;IkCzXA,8B;MACqB,sB;K;wCAKjB,iB;MAM8C,OICgWL,WkCh WK,aAAQ,KAAR,CICgWL,C;K;wCkC9VzC,wB;MAOI,aAAQ,KAAR,IAAiB,KICsPgB,K;K;mFkCIPP,Y;MAAQ ,OAAA,YAAQ,O;K;qCAE9C,Y;MAC+E,gCAAS,YAAT,C;K;IAEzD,qC;MAAC,oB;MACnB,eAAoB,C;K;6CACp B,Y;MAAyB,sBAAQ,YAAM,O;K;0CACvC,Y;MAAoD,Q;MAA9B,IAAI,eAAQ,YAAM,OAAIB,C;QAAA,OIC2 Ue,WkC3US,aAAM,mBAAN,EAAM,2BAAN,OIC2UT,C;,,,QkC3UwC,MAAM,2BAAuB,YAAM,WAA7B,C;K;2 CAGvF,mB;MAIS,Q;MAAL,IAAI,eAAC,0EAAD,SAAJ,C;QAAkC,OAAO,K;MAEzC,OAAe,WAAR,YAAQ,EA AS,OICiOs,KkCjOIB,C;K;gDAGnB,oB;MACY,Q;MAA2B,gBAA3B,gE;MAA2B,c;QjBioDvB,U;QADhB,IAAI, wCAAsB,mBAA1B,C;UAAqC,aAAO,I;UAAp,e;QACrB,6B;QAAhB,OAAgB,gBAAhB,C;UAAgB,2B;UiBjoD6B ,2BjBioDR,OiBjoDQ,S;UAAA,W;YAAwB,oBAAR,YAAQ,EjBioDhC,OjBp6CA,KkC7NgC,C;UjBioD/C,IAAI,O AAJ,C;YAAyB,aAAO,K;YAAP,e;QAC/C,aAAO,I;MiBloDH,iB;K;oCAGJ,Y;MAAkC,OAAA,IAAK,QAAQ,O AAb,KAAqB,C;K;IA9CvD,uC;MAAA,qD;MACgC,wBAAK,eAAW,IAAX,CAAL,C;MADhC,Y;K;,,,qCAPJ,Y;M AAA,OAKqB,sDALrB,M;K;qCAAA,Y;MAAA,c;MAKqB,wD;MALrB,a;K;mCAAA,iB;MAAA,2IAKqB,0CALrB ,G;K;kFAwDA,yB;MAAA,2C;MAWwC,0C;QAAA,wB;UAAW,OAAA,aAAK,KAAL,CIC4MV,K;S;O;MkCvNzC ,6B;QAWI,OAAO,qBAAY,gCAAW,IAAX,GAAiB,wBAAjB,CAAZ,C;O;KAXX,C;oFAcA,oB;MAGwE,e;K;IqM 3ExE,sC;MAQ2D,OAAa,WAAb,SzOkRjB,KAAL,GAAiB,GyOIRkB,EAAS,KAAT,C;K;IAExE,sC;MAQ4D,OAA a,WAAb,SvOyQIB,KAAL,GAAiB,KuOzQmB,EAAS,KAAT,C;K;IAGzE,sC;MAQ0D,OAAc,WxO2R5B,oBwO3R c,SxO2RnB,KAAK,CAAL,iBwO3RiC,EAAS,KAAT,C;K;IAExE,sC;MAOgD,uBAAc,SvNmRvB,KuNnRS,EA6 B,WAAW,KAAAX,CAA7B,C;K;IAGhD,8B;MAMqC,Q;MAAA,0DAAmB,kBAAkB,SAAlB,C;K;IAExD,qC;MAO

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in path(s):

```
* /opt/cola/permits/1719637930_1686604657.212766/0/kotlin-1-8-10-2-tgz/package/kotlin.js.map
```

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```
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```

## 1.182 snake-yaml 2.0

### 1.182.1 Available under license :

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/**  
 * A Base64 encoder/decoder.  
 *  
 * <p>  
 * This class is used to encode and decode data in Base64 format as described in RFC 1521.  
 *  
 * <p>  
 * Project home page: <a href="http://www.source-code.biz/base64coder/java/">www.  
 * source-code.biz/base64coder/java</a><br>  
 * Author: Christian d'Heureuse, Inventec Informatik AG, Zurich, Switzerland<br>  
 * Multi-licensed: EPL / LGPL / GPL / AL / BSD.  
 */
```

Found in path(s):

```
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-  
jar/org/yaml/snakeyaml/external/biz/base64Coder/Base64Coder.java
```

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/*
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\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/external/com/google/gdata/util/common/base/Escaper.java  
\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/external/com/google/gdata/util/common/base/PercentEscaper.java  
\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/external/com/google/gdata/util/common/base/UnicodeEscaper.java  
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Found in path(s):

\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/META-INF/maven/org.yaml/snakeyaml/pom.xml  
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Found in path(s):

\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/util/ArrayStack.java  
\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/tokens/StreamStartToken.java  
\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-

```

jar/org/yaml/snakeyaml/introspector/PropertyUtils.java
*
/opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/resolver/Resolver.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/nodes/AnchorNode.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/tokens/BlockEntryToken.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/util/EnumUtils.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/constructor/AbstractConstruct.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/constructor/SafeConstructor.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/TypeDescription.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/scanner/Constant.java
*
/opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/tokens/AliasToken.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/Yaml.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/constructor/CustomClassLoaderConstructor.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/emitter/EmitterException.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/events/NodeEvent.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/composer/ComposerException.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/resolver/ResolverTuple.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/tokens/DocumentStartToken.java
*
/opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/error/MarkedYAMLException.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/util/PlatformFeatureDetector.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/events/SequenceStartEvent.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/tokens/KeyToken.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/events/MappingEndEvent.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/extensions/compactnotation/PackageCompactConstructor.java

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\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/reader/StreamReader.java  
\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/comments/CommentEventsCollector.java  
\*  
/opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/nodes/ScalarNode.java  
\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/scanner/ScannerImpl.java  
\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/tokens/TagTuple.java  
\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/error/YAMLErrorException.java  
\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/events/StreamStartEvent.java  
\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/nodes/CollectionNode.java  
\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/emitter/ScalarAnalysis.java  
\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/inspector/TrustedTagInspector.java  
\*  
/opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/events/Event.java  
\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/inspector/TrustedPrefixesTagInspector.java  
\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/nodes/Node.java  
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\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/tokens/FlowSequenceStartToken.java  
\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/scanner/Scanner.java  
\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/events/DocumentEndEvent.java  
\*  
/opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/representer/Representer.java  
\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/tokens/BlockMappingStartToken.java  
\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/parser/ParserImpl.java  
\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/events/CollectionEndEvent.java  
\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/scanner/ScannerException.java  
\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-



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jar/org/yaml/snakeyaml/introspector/MissingProperty.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/internal/Logger.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/parser/ParserException.java
*
/opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/tokens/StreamEndToken.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/introspector/MethodProperty.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/tokens/BlockEndToken.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/util/ArrayUtils.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/events/ScalarEvent.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/parser/Production.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/comments/CommentType.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/serializer/Serializer.java
*
/opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/extensions/compactnotation/CompactData.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/nodes/NodeId.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/env/EnvScalarConstructor.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/introspector/FieldProperty.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/introspector/Property.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/tokens/DirectiveToken.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/error/MissingEnvironmentVariableException.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/introspector/BeanAccess.java
*
/opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/introspector/GenericProperty.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/emitter/Emitter.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/representer/SafeRepresenter.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/serializer/SerializerException.java

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\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/tokens/FlowMappingEndToken.java

\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/tokens/BlockSequenceStartToken.java

\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/events/DocumentStartEvent.java

\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/inspector/TagInspector.java

\*

/opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/tokens/AnchorToken.java

\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/LoaderOptions.java

\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/events/CommentEvent.java

\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/events/AliasEvent.java

\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/serializer/NumberAnchorGenerator.java

\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/tokens/CommentToken.java

\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/constructor/ConstructorException.java

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/opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/comments/CommentLine.java

\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/nodes/Tag.java

\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/DumperOptions.java

\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/tokens/FlowEntryToken.java

\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/representer/BaseRepresenter.java

\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/composer/Composer.java

\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/tokens/ValueToken.java

\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/nodes/MappingNode.java

\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/reader/ReaderException.java

\*

/opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/tokens/DocumentEndToken.java

\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/tokens/Token.java

\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-

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jar/org/yaml/snakeyaml/events/SequenceEndEvent.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/nodes/NodeTuple.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/serializer/AnchorGenerator.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/constructor/DuplicateKeyException.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
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*
/opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
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* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/parser/VersionTagsTuple.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/events/ImplicitTuple.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/tokens/FlowMappingStartToken.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
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* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/extensions/compactnotation/CompactConstructor.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/tokens/FlowSequenceEndToken.java
*
/opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/constructor/Constructor.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/util/UriEncoder.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/representer/Represent.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/error/Mark.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/nodes/SequenceNode.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/inspector/UnTrustedTagInspector.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/introspector/PropertySubstitute.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/constructor/BaseConstructor.java
*
/opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/scanner/SimpleKey.java
* /opt/cola/permits/1720484947_1686744817.7895513/0/snakeyaml-2-0-sources-6-
jar/org/yaml/snakeyaml/constructor/Construct.java

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\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/emitter/EmitterState.java  
\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/reader/UnicodeReader.java  
\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/events/StreamEndEvent.java  
\* /opt/cola/permits/1720484947\_1686744817.7895513/0/snakeyaml-2-0-sources-6-jar/org/yaml/snakeyaml/parser/Parser.java

# 1.183 openjdk-jre 11.0.19u7

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The implementations of GSSAPI mechglue in GSSAPI-SPNEGO in "src/lib/gssapi", including the following files:

- lib/gssapi/generic/gssapi\_err\_generic.et
- lib/gssapi/mechglue/g\_accept\_sec\_context.c
- lib/gssapi/mechglue/g\_acquire\_cred.c
- lib/gssapi/mechglue/g\_canon\_name.c
- lib/gssapi/mechglue/g\_compare\_name.c
- lib/gssapi/mechglue/g\_context\_time.c
- lib/gssapi/mechglue/g\_delete\_sec\_context.c
- lib/gssapi/mechglue/g\_dsp\_name.c
- lib/gssapi/mechglue/g\_dsp\_status.c
- lib/gssapi/mechglue/g\_dup\_name.c
- lib/gssapi/mechglue/g\_exp\_sec\_context.c
- lib/gssapi/mechglue/g\_export\_name.c
- lib/gssapi/mechglue/g\_glue.c
- lib/gssapi/mechglue/g\_imp\_name.c
- lib/gssapi/mechglue/g\_imp\_sec\_context.c
- lib/gssapi/mechglue/g\_init\_sec\_context.c
- lib/gssapi/mechglue/g\_initialize.c
- lib/gssapi/mechglue/g\_inquire\_context.c
- lib/gssapi/mechglue/g\_inquire\_cred.c
- lib/gssapi/mechglue/g\_inquire\_names.c
- lib/gssapi/mechglue/g\_process\_context.c
- lib/gssapi/mechglue/g\_rel\_buffer.c
- lib/gssapi/mechglue/g\_rel\_cred.c
- lib/gssapi/mechglue/g\_rel\_name.c
- lib/gssapi/mechglue/g\_rel\_oid\_set.c
- lib/gssapi/mechglue/g\_seal.c
- lib/gssapi/mechglue/g\_sign.c
- lib/gssapi/mechglue/g\_store\_cred.c
- lib/gssapi/mechglue/g\_unseal.c
- lib/gssapi/mechglue/g\_userok.c
- lib/gssapi/mechglue/g\_utils.c
- lib/gssapi/mechglue/g\_verify.c
- lib/gssapi/mechglue/gssd\_pname\_to\_uid.c

lib/gssapi/mechglue/mglueP.h  
lib/gssapi/mechglue/oid\_ops.c  
lib/gssapi/spnego/gssapiP\_spnego.h  
lib/gssapi/spnego/spnego\_mech.c

and the initial implementation of incremental propagation, including the following new or changed files:

include/iprop\_hdr.h  
kadmin/server/ipropd\_svc.c  
lib/kdb/iprop.x  
lib/kdb/kdb\_convert.c  
lib/kdb/kdb\_log.c  
lib/kdb/kdb\_log.h  
lib/krb5/error\_tables/kdb5\_err.et  
slave/kpropd\_rpc.c  
slave/kproplog.c

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This package is maintained by Michael Stone <mstone@debian.org> and built from sources obtained from:

<ftp://ftp.gnu.org/gnu/coreutils/coreutils-8.24.tar.xz>

This debian package was first created by Michael Stone <mstone@debian.org>, from coreutils 4.5.1.

Changes:

- \* added Debian GNU/Linux package maintenance system files
- \* at times, bug fixes awaiting inclusion in the upstream source

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lib/fts.c

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Upstream-Name: ncurses

Upstream-Contact: [bug-ncurses@gnu.org](mailto:bug-ncurses@gnu.org)

Thomas Dickey <[dickey@his.com](mailto:dickey@his.com)>

Source: <https://invisible-mirror.net/archives/ncurses/>

Files: \*

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Files: progs/tset.c ncurses/tinfo/read\_termcap.c

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It was downloaded from <ftp://sourceware.org/pub/libffi/>

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GCC developers

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This package was put together by Klee Dienes <klee@debian.org> from sources from `ftp.python.org:/pub/python`, based on the Debianization by the previous maintainers Bernd S. Brentrup <bsb@uni-muenster.de> and Bruce Perens.

Current maintainer is Matthias Klose <doko@debian.org> until the final 2.3 version is released.

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## A. HISTORY OF THE SOFTWARE

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Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see <http://www.cwi.nl>) in the Netherlands as a successor of a language called ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see <http://www.cnri.reston.va.us>) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations (now Zope Corporation, see <http://www.zope.com>). In 2001, the Python Software Foundation (PSF, see <http://www.python.org/psf/>) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member of the PSF.

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Release	Derived from	Year	Owner	GPL-compatible? (1)
0.9.0 thru 1.2				
	1991-1995	CWI		yes
1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.2	2.1.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2.1	2.2	2002	PSF	yes
2.2.2	2.2.1	2002	PSF	yes
2.2.3	2.2.2	2003	PSF	yes
2.3	2.2.2	2002-2003	PSF	yes
2.3.1	2.3	2002-2003	PSF	yes
2.3.2	2.3.1	2002-2003	PSF	yes
2.3.3	2.3.2	2002-2003	PSF	yes
2.3.4	2.3.3	2004	PSF	yes
2.3.5	2.3.4	2005	PSF	yes
2.4	2.3	2004	PSF	yes
2.4.1	2.4	2005	PSF	yes
2.4.2	2.4.1	2005	PSF	yes
2.4.3	2.4.2	2006	PSF	yes
2.4.4	2.4.3	2006	PSF	yes
2.5	2.4	2006	PSF	yes
2.5.1	2.5	2007	PSF	yes
2.5.2	2.5.1	2008	PSF	yes
2.5.3	2.5.2	2008	PSF	yes
2.6	2.5	2008	PSF	yes
2.6.1	2.6	2008	PSF	yes
2.6.2	2.6.1	2009	PSF	yes
2.6.3	2.6.2	2009	PSF	yes
2.6.4	2.6.3	2009		
	PSF	yes		
3.0	2.6	2008	PSF	yes
3.0.1	3.0	2009	PSF	yes
3.1	3.0.1	2009	PSF	yes
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Upstream-Contact: Thorsten Kukuk <kukuk@thkukuk.de>

Source: <https://github.com/thkukuk/libnsl>

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configure.ac

config.h.in

libnsl.pc.in

Makefile.am

NEWS

README

src/Makefile.am

src/do\_ypcall.c

src/internal.h

src/libnsl.map

src/nisplus/nis\_error.c

src/taddr2host.c

src/taddr2ipstr.c

src/taddr2port.c

src/yp\_first.c

src/yp\_get\_default\_domain.c

src/yp\_maplist.c

src/yp\_master.c

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Files: src/libc-lock.h

src/nisplus/nis\_add.c

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src/nisplus/nis\_call.c

src/nisplus/nis\_callback.c

src/nisplus/nis\_checkpoint.c

src/nisplus/nis\_clone\_dir.c

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src/nisplus/nis\_clone\_res.c

src/nisplus/nis\_creategroup.c  
src/nisplus/nis\_defaults.c  
src/nisplus/nis\_destroygroup.c  
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src/nisplus/nis\_remove.c  
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src/nisplus/nis\_rmdir.c  
src/nisplus/nis\_server.c  
src/nisplus/nis\_subr.c  
src/nisplus/nis\_table.c  
src/nisplus/nis\_util.c  
src/nisplus/nis\_verifygroup.c  
src/nisplus/nis\_xdr.c  
src/nisplus/nis\_xdr.h  
src/rpcsvc/nislib.h  
src/rpcsvc/ypclnt.h

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src/rpcsvc/nis\_callback.x  
src/rpcsvc/nis\_object.x  
src/rpcsvc/nis\_tags.h  
src/rpcsvc/nis.h  
src/rpcsvc/nis.x  
src/rpcsvc/yp.h  
src/rpcsvc/yp.x  
src/rpcsvc/yp\_prot.h  
src/rpcsvc/yppasswd.h  
src/rpcsvc/yppasswd.x  
src/rpcsvc/ypupd.h  
src/yp\_xdr.c

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depcomp

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m4/iconv.m4

m4/intlmacosx.m4

m4/lib-ld.m4

m4/lib-link.m4

m4/lib-prefix.m4

m4/libtool.m4  
m4/ltoptions.m4  
m4/ltsugar.m4  
m4/ltversion.m4  
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m4/nls.m4  
m4/po.m4  
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Files: ABOUT-NLS

po/Makefile.in.in  
po/Makevars  
po/POTFILES.in  
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po/boldquot.sed  
po/en@boldquot.header  
po/en@quot.header  
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Special thanks to Marek Michalkiewicz (marekm@i17linuxb.ists.pwr.wroc.pl)  
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Upstream-Name: perl

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Comment:

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.

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cpan/ExtUtils-Manifest/\*  
dist/I18N-Collate/\*  
dist/Safe/\*  
ext/Fcntl/\*  
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ext/GDBM\_File/\*  
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cpan/File-Fetch/\*

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cpan/podlators/t/lib/Test/RRA/Config.pm  
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cpan/Tie-RefHash/\*

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Source: <http://people.redhat.com/~dhowells/keyutils/>

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lib/accelerated/x86/elf/aes-ssse3-x86.s  
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Jaroslav IMRICH <jimrich@jimrich.sk>

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lib/unistring/\*

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Files: fuzz/gnutls\_base64\_decoder\_fuzzer.c

fuzz/gnutls\_base64\_encoder\_fuzzer.c

fuzz/gnutls\_ocsp\_req\_parser\_fuzzer.c

fuzz/gnutls\_ocsp\_resp\_parser\_fuzzer.c fuzz/gnutls\_server\_fuzzer.c

fuzz/gnutls\_set\_trust\_file\_fuzzer.c fuzz/gnutls\_handshake\_server\_fuzzer.c

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fuzz/gnutls\_dn\_parser\_fuzzer.c fuzz/gnutls\_idna\_parser\_fuzzer.c

fuzz/gnutls\_pkcs12\_key\_parser\_fuzzer.c fuzz/gnutls\_pkcs8\_key\_parser\_fuzzer.c

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fuzz/gnutls\_pkcs7\_parser\_fuzzer.c fuzz/gnutls\_private\_key\_parser\_fuzzer.c

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Files: fuzz/mem.h

fuzz/psk.h fuzz/srp.h fuzz/certs.h

fuzz/gnutls\_psk\_server\_fuzzer.c

fuzz/gnutls\_psk\_client\_fuzzer.c fuzz/gnutls\_srp\_client\_fuzzer.c

fuzz/gnutls\_srp\_server\_fuzzer.c

fuzz/handshake.h

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\* For English description, check RFC 5830.

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tests/system-override-hash.c tests/resume-lifetime.c  
tests/system-override-kx.sh tests/system-override-profiles.sh  
tests/system-override-sig.c tests/system-override-sig-hash.sh  
tests/system-override-tls.sh tests/system-override-versions.sh  
tests/iov.c tests/tls13-without-timeout-func.c  
tests/cert-tests/certtool-crl-decoding.sh  
tests/cert-tests/certtool-long-cn.sh tests/cert-tests/certtool-long-oids.sh  
tests/cert-tests/certtool-subca.sh tests/cert-tests/certtool-utf8.sh  
tests/cert-tests/crq.sh tests/cert-tests/inhibit-anypolicy.sh  
tests/cert-tests/pkcs12-utf8.s tests/cert-tests/pkcs7-broken-sigs.sh  
tests/cert-tests/pkcs7-constraints2.sh tests/cert-tests/pkcs7-constraints.sh  
tests/cert-tests/pkcs7-eddsa.sh tests/cert-tests/privkey-import.sh  
tests/cert-tests/provable-dh-default.sh tests/cert-tests/provable-dh.sh



tests/ocsp-tests/ocsp-load-chain.sh  
tests/ocsp-tests/ocsp-must-staple-connection.sh  
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tests/cert-tests/cert-critical.sh tests/cert-tests/certtool-ecdsa.sh  
tests/cert-tests/certtool-eddsa.sh tests/cert-tests/certtool-rsa-pss.sh  
tests/cert-tests/certtool-verify-profiles.sh tests/cert-tests/crl.sh  
tests/cert-tests/illegal-rsa.sh tests/cert-tests/invalid-sig.sh  
tests/cert-tests/pkcs7-cat.sh tests/cert-tests/pkcs8.sh  
tests/cert-tests/provable-privkey-dsa2048.sh  
tests/cert-tests/provable-privkey-gen-default.sh  
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tests/cert-tests/provable-privkey.sh tests/ocsp-tests/ocsp-test.sh  
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tests/cert-tests/reject-invalid-time.sh  
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tests/gnutls-ids.c tests/cert-tests/cert-sanity.sh  
tests/cert-tests/cert-time.sh tests/pkcs11/list-objects.c  
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man/strtou.3bsd  
man/unvis.3bsd  
man/vis.3bsd  
man/wcsncpy.3bsd

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Source: <https://github.com/tatsuhiro-t/nghttp2>

Files: \*

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Source: <https://metacpan.org/release/Error>

Upstream-Contact: Shlomi Fish <shlomif@iglu.org.il>

Upstream-Name: Error

Files: \*

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Comment:

# Based on my original Error.pm, and Exceptions.pm by Peter Seibel

# <peter@weblogic.com> and adapted by Jesse Glick <jglick@sig.bsh.com>.

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Because of this blurred distinction, using the ordinary General Public License for libraries did not effectively promote software sharing, because most developers did not use the libraries. We concluded that weaker conditions might promote sharing better.

However, unrestricted linking of non-free programs would deprive the users of those programs of all benefit from the free status of the libraries themselves. This Library General Public License is intended to permit developers of non-free programs to use free libraries, while preserving your freedom as a user of such programs to change the free libraries that are incorporated in them. (We have not seen how to achieve this as regards changes in header files, but we have achieved it as regards changes in the actual functions of the Library.) The hope is that this will lead to faster development of free libraries.

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

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to use the modified definitions.)

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That's all there is to it!

This package was created by Peter Tobias tobias@et-inf.fho-emden.de on  
Wed, 24 Aug 1994 21:33:28 +0200 and maintained by Anthony Towns  
<ajt@debian.org> until 2001.  
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Finally, every program is threatened constantly by software patents. States should not allow patents to restrict development and use of software on general-purpose computers, but in those that do, we wish to avoid the special danger that patents applied to a free program could make it effectively proprietary. To prevent this, the GPL assures that

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The

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From: Juan Gomez <juang@us.ibm.com>  
To: Stephen Frost <sfrost@debian.org>  
X-Mailer: Lotus Notes Release 5.0.2a (Intl) 23 November 1999  
Subject: Re: Juan C. Gomez license in OpenLDAP Source

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Local-Date: Thu, 05 Jun 2003 16:53:32 -0400  
Date: Thu, 5 Jun 2003 16:53:32 -0400 (EDT)  
From: Mark Adamson <adamson@andrew.cmu.edu>  
To: Stephen Frost <sfrost@debian.org>  
Subject: Re: Mark Adamson license in OpenLDAP source

Hi Stephen,

I don't see how this conflicts with the Debian FSG. The first statement in the copyright pertaining to CMU say only that we don't license out the software. The second mention denies the right to say things like,  
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-Mark

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OL2

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After discussing this license with the OpenLDAP Foundation we received clarification on it:

---

\* To: Stephen Frost <[sfrost@snowman.net](mailto:sfrost@snowman.net)>

\* Subject: Re: OpenLDAP Licenseing issues

\* From: "Kurt D. Zeilenga" <[Kurt@OpenLDAP.org](mailto:Kurt@OpenLDAP.org)>

\* Date: Wed, 28 May 2003 10:55:44 -0700  
\* Cc: Steve Langasek <vorlon@netexpress.net>,debian-legal@lists.debian.org, openldap-devel@OpenLDAP.org  
\* In-reply-to: <20030528162613.GB8524@ns.snowman.net>  
\* Message-id: <5.2.0.9.0.20030528094229.02924780@127.0.0.1>  
\* Old-return-path: <Kurt@OpenLDAP.org>

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Regards, Kurt

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## Harfbuzz v2.8

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## xwd v1.0.7

```
### xwd utility
```

```
<pre>
```

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J. Ramos Goncalves <ramos@debian.org> on Thu, 13 Feb 1997 23:15:18 +0000

Nicols Lichtmaier <nick@debian.org> on Sat, 18 Oct 1997 21:23:12 -0300

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file\_io/unix/mktemp.c, strings/apr\_strings.c:

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From strings/apr\_strnatcmp.c, include/apr\_strings.h:

strnatcmp.c -- Perform 'natural order' comparisons of strings in C.  
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From test/CuTest.c, test/CuTest.h:

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It was downloaded from <ftp://ftp.gnu.org/gnu/findutils>

Debian maintainer history: The original package was put together by Ian Murdock <imurdock@debian.org>, afterwards Kevin Dalley <kevind@rahul.net> took over. 2003-07 Andreas Metzler <ametzler@debian.org> followed.

Upstream Authors:

\* GNU find was written by Eric Decker <cire@cisco.com>, with enhancements by David MacKenzie <djm@gnu.org>, Jay Plett <jay@silence.princeton.nj.us>, and Tim Wood <axolotl!tim@toad.com>.

The idea for -print0 and xargs -0 came from

Dan Bernstein <brnstnd@kramden.acf.nyu.edu>.

Improvements have been made by James Youngman <jay@gnu.org>.

\* GNU xargs

was originally written by Mike Rendell, with enhancements by David MacKenzie. Modifications by James Youngman Dmitry V. Levin

\* GNU locate and its associated utilities were originally

written by James Woods, with enhancements by David MacKenzie, James Youngman and Bas van Gompel.

Upstream's AUTHORS lists these major contributors:

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Paul Sheer

Dmitry V. Levin

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Andreas Metzler

Kamil Dudka <kdudka@redhat.com>

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Current upstream maintainer is James Youngman <jay@gnu.org>.



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This is the Debian GNU/Linux prepackaged version of libxcrypt.

It has been packaged by Marco d'Itri <md@linux.it>.

Original sources were obtained from:

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Comment: This is the pre-packaged Debian Linux version of the zlib compression library. It was packaged by Michael Alan Dorman <mdorman@debian.org> from sources originally retrieved from ftp.uu.net in the directory /pub/archiving/zip/zlib as the file zlib-1.0.4.tar.gz.

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The deflate format used by zlib was defined by Phil Katz. The deflate and zlib specifications were written by Peter Deutsch. Thanks to all the people who reported problems and suggested various improvements in zlib; they are too numerous to cite here.

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Jean-loup Gailly      Mark Adler  
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Murdock, Ted Hajek <tedhajek@boombox.micro.umn.edu>, and Sven Rudolph  
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Since Nov 27 1996, it was maintained by Guy Maor <maor@debian.org>. He rewrote most of it.

Since May 20 2000, it is maintained by Roland Bauerschmidt  
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## A. HISTORY OF THE SOFTWARE

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Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see <http://www.cwi.nl>) in the Netherlands as a successor of a language called

ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see <http://www.cnri.reston.va.us>) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to

BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations (now Zope Corporation, see <http://www.zope.com>). In 2001, the Python Software Foundation (PSF, see <http://www.python.org/psf/>) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member of the PSF.

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1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
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2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.2	2.1.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2 and above	2.1.1	2001-now	PSF	yes

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Mersenne Twister

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The `'_random'` module includes code based on a download from `'http://www.math.keio.ac.jp/~matumoto/MT2002/emt19937ar.html'`. The following are the verbatim comments from the original code:

A C-program for MT19937, with initialization improved 2002/1/26.  
Coded by Takuji Nishimura and Makoto Matsumoto.

Before using, initialize the state by using `init_genrand(seed)`  
or `init_by_array(init_key, key_length)`.

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<http://www.math.keio.ac.jp/matumoto/emt.html>

email: [matumoto@math.keio.ac.jp](mailto:matumoto@math.keio.ac.jp)

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The `socket' module uses the functions, `getaddrinfo', and `getnameinfo', which are coded in separate source files from the WIDE Project, `http://www.wide.ad.jp/about/index.html'.

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UUencode and UUdecode functions

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Modified by Jack Jansen, CWI, July 1995:

- Use binascii module to do the actual line-by-line conversion between ascii and binary. This results in a 1000-fold speedup. The C version is still 5 times faster, though.
- Arguments more compliant with python standard

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.  
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3.0 (December 2000)

.  
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.  
@author Vincent Rijmen <vincent.rijmen@esat.kuleuven.ac.be>

@author Antoon Bosselaers <antoon.bosselaers@esat.kuleuven.ac.be>

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This is the Debian GNU/Linux prepackaged version of the GNU compiler collection, containing Ada, C, C++, D, Fortran 95, Go, Objective-C, Objective-C++, and Modula-2 compilers, documentation, and support libraries. In addition, Debian provides the gm2 compiler, either in the same source package, or built from a separate same source package.

Packaging is done by the Debian GCC Maintainers  
<debian-gcc@lists.debian.org>, with sources obtained from:

<ftp://gcc.gnu.org/pub/gcc/releases/> (for full releases)

<svn://gcc.gnu.org/svn/gcc/> (for prereleases)

<ftp://sourceware.org/pub/newlib/> (for newlib)

<git://git.savannah.gnu.org/gm2.git> (for Modula-2)

The current gcc-9 source package is taken from the SVN gcc-9-branch.

Changes: See changelog.Debian.gz

Debian splits the GNU Compiler Collection into packages for each language, library, and documentation as follows:

Language	Compiler package	Library package	Documentation
Ada	gnat-9	libgnat-9	gnat-9-doc
BRIG	gccbrig-9	libhsail-rt0	
C	gcc-9		gcc-9-doc
C++	g++-9	libstdc++6	libstdc++6-9-doc
D	gdc-9		
Fortran 95	gfortran-9	libgfortran3	gfortran-9-doc
Go	gccgo-9	libgo0	
Objective C	gobjc-9	libobjc2	
Objective C++	gobjc++-9		
Modula-2	gm2-9	libgm2	

For some language run-time libraries, Debian provides source files, development files, debugging symbols and libraries containing position-independent code in separate packages:

Language	Sources	Development	Debugging	Position-Independent
C++		libstdc++6-9-dev	libstdc++6-9-dbg	libstdc++6-9-pic
D	libphobos-9-dev			

Additional packages include:

All languages:

libgcc1, libgcc2, libgcc4

GCC intrinsics (platform-dependent)

gcc-9-base Base files common to all compilers

gcc-9-soft-float Software floating point (ARM only)

gcc-9-source The sources with patches

Ada:

libgnatvsn-dev, libgnatvsn9 GNAT version library

C:

cpp-9, cpp-9-doc GNU C Preprocessor

libssp0-dev, libssp0 GCC stack smashing protection library

libquadmath0 Math routines for the \_\_float128 type

fixincludes Fix non-ANSI header files

C, C++ and Fortran 95:



libgomp1-dev, libgomp1 GCC OpenMP (GOMP) support library  
libitm1-dev, libitm1 GNU Transactional Memory Library

Biarch support: On some 64-bit platforms which can also run 32-bit code, Debian provides additional packages containing 32-bit versions of some libraries. These packages have names beginning with 'lib32' instead of 'lib', for example lib32stdc++6. Similarly, on some 32-bit platforms which can also run 64-bit code, Debian provides additional packages with names beginning with 'lib64' instead of 'lib'. These packages contain 64-bit versions of the libraries. (At this time, not all platforms and not all libraries support biarch.) The license terms for these lib32 or lib64 packages are identical to the ones for the lib packages.

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gcc/tsystem.h, gcc/typeclass.h).

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- libgomp
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- libssp
- libstdc++-v3
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coshq.c, erfq.c, jnq.c, lgammaq.c, powq.c, roundq.c:

Changes for 128-bit \_\_float128 are

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ldexpq.c:

- \* Conversion to long double by Ulrich Drepper,
- \* Cygnus Support, drepper@cygnus.com.

cosq\_kernel.c, expq.c, sincos\_table.c, sincosq.c, sincosq\_kernel.c, sinq\_kernel.c, truncq.c:

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Cephes Math Library Release 2.2: January, 1991

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gcc/go/gofrontend,



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D:

gdc-9                    GNU D Compiler  
libphobos-9-dev        D standard runtime library

The D source package is made up of the following components.

The D front-end for GCC:

- d/\*

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The DMD Compiler implementation of the D programming language:  
- `d/dmd/*`

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The Zlib data compression library:  
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The Phobos standard runtime library:  
- `d/phobos/*`

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Information technology - programming languages

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mpi/hppa1.1/mpih-mul1.S, mpi/Makefile.am, tests/prime.c,  
tests/register.c, tests/ac.c, tests/basic.c, tests/tsexp.c,  
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This package was put together by Chris Fearnley <cjf@netaxs.com>, from sources obtained from:  
<ftp://ftp.whidbey.net/pub/brennan/mawk1.3.3.tar.gz>

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## JRuby Joni v2.1.16

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Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see <http://www.cwi.nl>) in the Netherlands as a successor of a language called ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see <http://www.cnri.reston.va.us>) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations, which became Zope Corporation. In 2001, the Python Software Foundation (PSF, see <https://www.python.org/psf/>) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation was a sponsoring member of the PSF.

All

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Release	Derived from	Year	Owner	GPL-compatible? (1)
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1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)

2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2 and above	2.1.1	2001-now	PSF	yes

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## THE BASIC LIBRARY FUNCTIONS

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Written by: Philip Hazel  
Email local part: ph10  
Email domain:  
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Files: imap-send.c

Copyright: 2000-2002, Michael R. Elkins <me@mutt.org>  
2002-2004, Oswald Buddenhagen <ossi@users.sf.net>  
2004, Theodore Y. Ts'o <tytso@mit.edu>  
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Name: git-imap-send - drops patches into an imap Drafts folder  
derived from isync/mbsync - mailbox synchronizer

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Files: perl/private-Error.pm

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Source: <https://github.com/Cyan4973/lz4>

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Upstream-Contact: sysvinit-devel@nongnu.org

Source: <https://download.savannah.gnu.org/releases/sysvinit/>

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Upstream-Name: XZ Utils

Upstream-Contact:

Lasse Collin <[lasse.collin@tukaani.org](mailto:lasse.collin@tukaani.org)>

<https://tukaani.org/xz/lists.html>

Source:

<https://tukaani.org/xz>

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Comment:

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To: Jonathan Nieder <jrnieder@gmail.com>

Subject: Re: XZ utils for Debian

Date: Sun, 19 Jul 2009 13:28:23 +0300

Message-Id: <200907191328.23816.lasse.collin@tukaani.org>

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[...]

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Origin: configure.ac from XZ Utils,  
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Source: <https://github.com/google/brotli>

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From strings/apr\_strnatcmp.c, include/apr\_strings.h:

strnatcmp.c -- Perform 'natural order' comparisons of strings in C.  
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Upstream-Name: libassuan  
Upstream-Contact: Werner Koch <wk@gnupg.org>  
Source: <https://gnupg.org/ftp/gcrypt/libassuan/>

Files: \*  
Makefile.am  
src/Makefile.am  
src/assuan-buffer.c

src/assuan-error.c  
src/assuan-inquire.c  
src/assuan-io.c  
src/assuan-listen.c  
src/assuan-pipe-server.c  
src/assuan-socket-connect.c  
src/assuan-socket-server.c  
src/assuan-socket.c  
src/assuan-uds.c  
src/client.c  
src/context.c  
src/funopen.c  
src/memrchr.c  
src/posix-fd-t.inc.h  
src/posix-includes.inc.h  
src/posix-sock-nonce.inc.h  
src/posix-sys-pth-impl.h  
src/posix-types.inc.h  
src/putc\_unlocked.c  
src/server.c  
src/setenv.c  
src/stpcpy.c  
src/system-posix.c  
src/system-w32.c  
src/system-w32ce.c  
src/system.c  
src/w32-fd-t.inc.h  
src/w32-includes.inc.h  
src/w32-sock-nonce.inc.h  
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aclocal.m4  
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m4/ltsugar.m4  
m4/ltversion.m4  
m4/lt~obsolete.m4  
m4/onceonly.m4

m4/socklen.m4

m4/sys\_socket\_h.m4

m4/Makefile.in

src/libassuan-config.in

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src/gpgcemgr.c

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tests/ce-creatpipe.c

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tests/version.c

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Upstream-Name: Pinentry  
Upstream-Contact: [gnupg-devel@gnupg.org](mailto:gnupg-devel@gnupg.org)  
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libacl/\*.c

libacl/\*.h

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This package was put together by Yann Dirson <dirson@debian.org>.

from sources obtained from a mirror of:  
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Packaging is done by the Debian GCC Maintainers <[debian-gcc@lists.debian.org](mailto:debian-gcc@lists.debian.org)>, with sources obtained from:

<ftp://gcc.gnu.org/pub/gcc/releases/> (for full releases)

<svn://gcc.gnu.org/svn/gcc/> (for prereleases)

<ftp://sourceware.org/pub/newlib/> (for newlib)

<git://git.savannah.gnu.org/gm2.git> (for Modula-2)

The current gcc-10 source package is taken from the SVN gcc-10-branch.

Changes: See [changelog.Debian.gz](http://changelog.Debian.gz)

Debian splits the GNU Compiler Collection into packages for each language, library, and documentation as follows:

Language	Compiler package	Library package	Documentation
Ada	gnat-10	libgnat-10	gnat-10-doc
BRIG	gccbrig-10	libhsail-rt0	
C	gcc-10		gcc-10-doc
C++	g++-10	libstdc++6	libstdc++6-10-doc
D	gdc-10		
Fortran 95	gfortran-10	libgfortran5	gfortran-10-doc
Go	gccgo-10	libgo0	
Objective C	gobjc-10	libobjc4	
Objective C++	gobjc++-10		
Modula-2	gm2-10	libgm2	

For some language run-time libraries, Debian provides source files, development files, debugging symbols and libraries containing position-independent code in separate packages:

Language	Sources	Development	Debugging	Position-Independent
C++		libstdc++6-10-dbg	libstdc++6-10-pic	
D	libphobos-10-dev			

Additional packages include:

All languages:

libgcc1,	
libgcc2, libgcc4	GCC intrinsics (platform-dependent)
gcc-10-base	Base files common to all compilers
gcc-10-soft-float	Software floating point (ARM only)
gcc-10-source	The sources with patches

Ada:

libgnat-util10-dev, libgnat-util10 GNAT version library

C:

cpp-10, cpp-10-doc	GNU C Preprocessor
libssp0-dev, libssp0	GCC stack smashing protection library
libquadmath0	Math routines for the __float128 type
fixincludes	Fix non-ANSI header files

C, C++ and Fortran 95:

libgomp1-dev, libgomp1 GCC OpenMP (GOMP) support library  
libitm1-dev, libitm1 GNU Transactional Memory Library

Biarch support: On some 64-bit platforms which can also run 32-bit code, Debian provides additional packages containing 32-bit versions of some libraries. These packages have names beginning with 'lib32' instead of 'lib', for example lib32stdc++6. Similarly, on some 32-bit platforms which can

also run 64-bit code, Debian provides additional packages with names beginning with 'lib64' instead of 'lib'. These packages contain 64-bit versions of the libraries. (At this time, not all platforms and not all libraries support biarch.) The license terms for these lib32 or lib64 packages are identical to the ones for the lib packages.

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D:

gdc-10                    GNU D Compiler  
libphobos-10-dev        D standard runtime library

The D source package is made up of the following components.

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- d/\*

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gcc/m2/gm2-libiberty:

gcc/m2/mc-boot/:

gcc/m2/mc-boot-ch/:

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gcc/m2/gm2-libs:

gcc/m2/gm2-libs-min:

gcc/m2/gm2-libs-pim:

gcc/m2/gm2-libs-ch:

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gcc/m2/gm2-libs-iso/\*.def:

Library module defined by the International Standard  
Information technology - programming languages  
BS ISO/IEC 10514-1:1996E Part 1: Modula-2, Base Language.

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libgm2/libpim/:

libgm2/liblog/:

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Files-Excluded: docs/doxygen
```

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## Mesa 3-D Graphics Library v21.0.3

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Gallium code	src/ gallium/	MIT
Ext headers	GL/ glxext.h	Khronos
	GL/ glxext.h	Khronos
	GL/ wglxext.h	Khronos
	KHR/ khrplatform.h	Khronos

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Mesa 3-D  
graphics library

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```
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include/GL/glxext.h
include/GL/wglxext.h :
```

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 */
```

Found in path(s):

```
* /opt/cola/permits/1738534381_1688660452.5104973/0/schema-registry-common-1-1-14-sources-
jar/com/amazonaws/services/schemaregistry/utils/AvroRecordType.java
* /opt/cola/permits/1738534381_1688660452.5104973/0/schema-registry-common-1-1-14-sources-
jar/com/amazonaws/services/schemaregistry/common/AWSSchemaNamingStrategyDefaultImpl.java
*
/opt/cola/permits/1738534381_1688660452.5104973/0/schema-registry-common-1-1-14-sources-
jar/com/amazonaws/services/schemaregistry/exception/AWSSchemaRegistryException.java
* /opt/cola/permits/1738534381_1688660452.5104973/0/schema-registry-common-1-1-14-sources-
jar/com/amazonaws/services/schemaregistry/common/AWSDeserializerInput.java
* /opt/cola/permits/1738534381_1688660452.5104973/0/schema-registry-common-1-1-14-sources-
jar/com/amazonaws/services/schemaregistry/common/GlueSchemaRegistryDefaultCompression.java
* /opt/cola/permits/1738534381_1688660452.5104973/0/schema-registry-common-1-1-14-sources-
jar/com/amazonaws/services/schemaregistry/caching/GlueSchemaRegistryCache.java
* /opt/cola/permits/1738534381_1688660452.5104973/0/schema-registry-common-1-1-14-sources-
```

```
jar/com/amazonaws/services/schemaregistry/common/AWSSchemaRegistryGlueClientRetryPolicyHelper.java
* /opt/cola/permits/1738534381_1688660452.5104973/0/schema-registry-common-1-1-14-sources-
jar/com/amazonaws/services/schemaregistry/common/GlueSchemaRegistryCompressionFactory.java
*
/opt/cola/permits/1738534381_1688660452.5104973/0/schema-registry-common-1-1-14-sources-
jar/com/amazonaws/services/schemaregistry/utils/GlueSchemaRegistryUtils.java
* /opt/cola/permits/1738534381_1688660452.5104973/0/schema-registry-common-1-1-14-sources-
jar/com/amazonaws/services/schemaregistry/common/GlueSchemaRegistryDataFormatDeserializer.java
* /opt/cola/permits/1738534381_1688660452.5104973/0/schema-registry-common-1-1-14-sources-
jar/com/amazonaws/services/schemaregistry/exception/GlueSchemaRegistryIncompatibleDataException.java
* /opt/cola/permits/1738534381_1688660452.5104973/0/schema-registry-common-1-1-14-sources-
jar/com/amazonaws/services/schemaregistry/common/AWSSchemaNamingStrategy.java
* /opt/cola/permits/1738534381_1688660452.5104973/0/schema-registry-common-1-1-14-sources-
jar/com/amazonaws/services/schemaregistry/common/configs/GlueSchemaRegistryConfiguration.java
* /opt/cola/permits/1738534381_1688660452.5104973/0/schema-registry-common-1-1-14-sources-
jar/com/amazonaws/services/schemaregistry/common/AWSSerializerInput.java
*
/opt/cola/permits/1738534381_1688660452.5104973/0/schema-registry-common-1-1-14-sources-
jar/com/amazonaws/services/schemaregistry/common/AWSSchemaRegistryClient.java
* /opt/cola/permits/1738534381_1688660452.5104973/0/schema-registry-common-1-1-14-sources-
jar/com/amazonaws/services/schemaregistry/utils/AWSSchemaRegistryConstants.java
* /opt/cola/permits/1738534381_1688660452.5104973/0/schema-registry-common-1-1-14-sources-
jar/com/amazonaws/services/schemaregistry/common/Schema.java
* /opt/cola/permits/1738534381_1688660452.5104973/0/schema-registry-common-1-1-14-sources-
jar/com/amazonaws/services/schemaregistry/common/GlueSchemaRegistryCompressionHandler.java
* /opt/cola/permits/1738534381_1688660452.5104973/0/schema-registry-common-1-1-14-sources-
jar/com/amazonaws/services/schemaregistry/common/GlueSchemaRegistryDataFormatSerializer.java
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```

Found in path(s):

```
* /opt/cola/permits/1738534381_1688660452.5104973/0/schema-registry-common-1-1-14-sources-jar/META-
```



# 1.190 aws-java-sdk-kms 1.12.349

## 1.190.1 Available under license :

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# 1.191 dynamodb 2.20.8

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\* /opt/cola/permits/1738534443\_1688660770.672255/0/aws-java-sdk-dynamodb-1-12-349-sources-jar/com/amazonaws/services/dynamodbv2/xspec/DeleteItemExpressionSpec.java  
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\* /opt/cola/permits/1738534443\_1688660770.672255/0/aws-java-sdk-dynamodb-1-12-349-sources-jar/com/amazonaws/services/dynamodbv2/xspec/PlusOperation.java  
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/opt/cola/permits/1738534443\_1688660770.672255/0/aws-java-sdk-dynamodb-1-12-349-sources-jar/com/amazonaws/services/dynamodbv2/xspec/NamedElement.java  
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\* /opt/cola/permits/1738534443\_1688660770.672255/0/aws-java-sdk-dynamodb-1-12-349-sources-jar/com/amazonaws/services/dynamodbv2/xspec/BinaryOperation.java

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\* /opt/cola/permits/1738534443\_1688660770.672255/0/aws-java-sdk-dynamodb-1-12-349-sources-jar/com/amazonaws/services/dynamodbv2/util/TableUtils.java

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jar/com/amazonaws/services/dynamodbv2/AmazonDynamoDBClientConfigurationFactory.java  
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jar/com/amazonaws/services/dynamodbv2/datamodeling/DynamoDBAutoGenerateStrategy.java  
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jar/com/amazonaws/services/dynamodbv2/datamodeling/AbstractDynamoDBMapper.java  
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\* /opt/cola/permits/1738534443\_1688660770.672255/0/aws-java-sdk-dynamodb-1-12-349-sources-jar/com/amazonaws/services/dynamodbv2/datamodeling/DynamoDBTypeConvertedEpochDate.java

# 1.198 utils 2.20.8

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jar/com/amazonaws/services/schemaregistry/utils/apicurio/DynamicSchema.java
* /opt/cola/permits/1738534318_1688660739.9118478/0/schema-registry-serde-1-1-14-sources-
jar/com/amazonaws/services/schemaregistry/utils/apicurio/EnumDefinition.java
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jar/com/amazonaws/services/schemaregistry/utils/apicurio/ProtobufMessage.java
* /opt/cola/permits/1738534318_1688660739.9118478/0/schema-registry-serde-1-1-14-sources-
jar/com/amazonaws/services/schemaregistry/utils/apicurio/ProtobufSchema.java
* /opt/cola/permits/1738534318_1688660739.9118478/0/schema-registry-serde-1-1-14-sources-
jar/com/amazonaws/services/schemaregistry/utils/apicurio/ProtobufSchemaLoader.java
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jar/com/amazonaws/services/schemaregistry/deserializers/SecondaryDeserializer.java
* /opt/cola/permits/1738534318_1688660739.9118478/0/schema-registry-serde-1-1-14-sources-
jar/com/amazonaws/services/schemaregistry/deserializers/GlueSchemaRegistryDeserializationFacade.java
*
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jar/com/amazonaws/services/schemaregistry/deserializers/GlueSchemaRegistryKafkaDeserializer.java
* /opt/cola/permits/1738534318_1688660739.9118478/0/schema-registry-serde-1-1-14-sources-
jar/com/amazonaws/services/schemaregistry/deserializers/json/JsonDeserializer.java
* /opt/cola/permits/1738534318_1688660739.9118478/0/schema-registry-serde-1-1-14-sources-
jar/com/amazonaws/services/schemaregistry/deserializers/GlueSchemaRegistryDeserializerFactory.java
* /opt/cola/permits/1738534318_1688660739.9118478/0/schema-registry-serde-1-1-14-sources-
jar/com/amazonaws/services/schemaregistry/serializers/json/JsonSerializer.java
* /opt/cola/permits/1738534318_1688660739.9118478/0/schema-registry-serde-1-1-14-sources-
jar/com/amazonaws/services/schemaregistry/serializers/avro/AvroSerializer.java
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\* /opt/cola/permits/1738534318\_1688660739.9118478/0/schema-registry-serde-1-1-14-sources-jar/com/amazonaws/services/schemaregistry/serializers/json/JsonValidator.java  
\*  
/opt/cola/permits/1738534318\_1688660739.9118478/0/schema-registry-serde-1-1-14-sources-jar/com/amazonaws/services/schemaregistry/serializers/GlueSchemaRegistrySerializerFactory.java  
\* /opt/cola/permits/1738534318\_1688660739.9118478/0/schema-registry-serde-1-1-14-sources-jar/com/amazonaws/services/schemaregistry/serializers/SerializationDataEncoder.java  
\* /opt/cola/permits/1738534318\_1688660739.9118478/0/schema-registry-serde-1-1-14-sources-jar/com/amazonaws/services/schemaregistry/deserializers/GlueSchemaRegistryDeserializerDataParser.java  
\* /opt/cola/permits/1738534318\_1688660739.9118478/0/schema-registry-serde-1-1-14-sources-jar/com/amazonaws/services/schemaregistry/deserializers/GlueSchemaRegistryDeserializerImpl.java  
\* /opt/cola/permits/1738534318\_1688660739.9118478/0/schema-registry-serde-1-1-14-sources-jar/com/amazonaws/services/schemaregistry/deserializers/avro/AWSKafkaAvroDeserializer.java  
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\* /opt/cola/permits/1738534318\_1688660739.9118478/0/schema-registry-serde-1-1-14-sources-jar/com/amazonaws/services/schemaregistry/deserializers/protobuf/ProtobufWireFormatDecoder.java  
\* /opt/cola/permits/1738534318\_1688660739.9118478/0/schema-registry-serde-1-1-14-sources-jar/com/amazonaws/services/schemaregistry/deserializers/avro/AvroDeserializer.java  
\* /opt/cola/permits/1738534318\_1688660739.9118478/0/schema-registry-serde-1-1-14-sources-jar/com/amazonaws/services/schemaregistry/serializers/GlueSchemaRegistrySerializationFacade.java  
\* /opt/cola/permits/1738534318\_1688660739.9118478/0/schema-registry-serde-1-1-14-sources-jar/com/amazonaws/services/schemaregistry/serializers/avro/AWSKafkaAvroSerializer.java  
\* /opt/cola/permits/1738534318\_1688660739.9118478/0/schema-registry-serde-1-1-14-sources-jar/com/amazonaws/services/schemaregistry/deserializers/protobuf/ProtobufDeserializer.java  
\*  
/opt/cola/permits/1738534318\_1688660739.9118478/0/schema-registry-serde-1-1-14-sources-jar/com/amazonaws/services/schemaregistry/serializers/json/JsonDataWithSchema.java  
\* /opt/cola/permits/1738534318\_1688660739.9118478/0/schema-registry-serde-1-1-14-sources-jar/com/amazonaws/services/schemaregistry/serializers/GlueSchemaRegistrySerializerImpl.java  
\* /opt/cola/permits/1738534318\_1688660739.9118478/0/schema-registry-serde-1-1-14-sources-jar/com/amazonaws/services/schemaregistry/serializers/protobuf/ProtobufSerializer.java  
\* /opt/cola/permits/1738534318\_1688660739.9118478/0/schema-registry-serde-1-1-14-sources-jar/com/amazonaws/services/schemaregistry/serializers/GlueSchemaRegistrySerializer.java  
\* /opt/cola/permits/1738534318\_1688660739.9118478/0/schema-registry-serde-1-1-14-sources-jar/com/amazonaws/services/schemaregistry/deserializers/GlueSchemaRegistryDeserializer.java  
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\* /opt/cola/permits/1738534318\_1688660739.9118478/0/schema-registry-serde-1-1-14-sources-jar/com/amazonaws/services/schemaregistry/serializers/protobuf/ProtobufWireFormatEncoder.java  
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\*

\* This will be removed once Apicurio releases the latest version with the json\_name fix

\* <https://github.com/Apicurio/apicurio-registry/blob/master/utis/protobuf-schema-utilities/src/main/java/io/apicurio/registry/utis/protobuf/schema/ProtobufFile.java>

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kafka-connect-converter-protobuf

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Found in path(s):

\* /opt/cola/permits/1738534318\_1688660739.9118478/0/schema-registry-serde-1-1-14-sources-jar/com/amazonaws/services/schemaregistry/utis/apicurio/ProtobufFile.java

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# 1.204 protocol-core 2.20.8

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*/
/**
 * <p>
 * Creates a new secret. A secret in Secrets Manager consists of both the protected secret data and the important
 * information needed to manage the secret.
 * </p>
 * <p>
 * Secrets Manager stores the encrypted secret data in one of a collection of "versions" associated with the secret.
 * Each version contains
a copy of the encrypted secret data. Each version is associated with one or more
 * "staging labels" that identify where the version is in the rotation cycle. The
 * <code>SecretVersionsToStages</code> field of the secret contains the mapping of staging labels to the active
 * versions of the secret. Versions without a staging label are considered deprecated and are not included in the
 * list.
 * </p>
 * <p>
 * You provide the secret data to be encrypted by putting text in either the <code>SecretString</code> parameter
or
 * binary data in the <code>SecretBinary</code> parameter, but not both. If you include
<code>SecretString</code> or
 * <code>SecretBinary</code> then Secrets Manager also creates an initial secret version and automatically
attaches
 * the staging label <code>AWSCURRENT</code> to the new version.
 * </p>
 * <note>
 * <ul>
 * <li>
 * <p>
 * If you call an operation that needs to encrypt or decrypt the
<code>SecretString</code> or
 * <code>SecretBinary</code> for a secret in the same account as the calling user and that secret doesn't specify a
 * AWS KMS encryption key, Secrets Manager uses the account's default AWS managed customer master key
(CMK) with the
 * alias <code>aws/secretsmanager</code>. If this key doesn't already exist in your account then Secrets Manager
 * creates it for you automatically. All users in the same AWS account automatically have access to use the default
 * CMK. Note that if an Secrets Manager API call results in AWS having to create the account's AWS-managed

```

CMK, it

- \* can result in a one-time significant delay in returning the result.

- \* </p>

- \* </li>

- \* <li>

- \* <p>

- \* If the secret is in a different AWS account from the credentials calling an API that requires encryption or

- \* decryption of the secret value then you must create and use a custom AWS KMS CMK because you can't access the

- \* default CMK

for the account using credentials from a different AWS account. Store the ARN of the CMK in the

- \* secret when you create the secret or when you update it by including it in the <code>KMSKeyId</code>. If you call

- \* an API that must encrypt or decrypt <code>SecretString</code> or <code>SecretBinary</code> using credentials from

- \* a different account then the AWS KMS key policy must grant cross-account access to that other account's user or

- \* role for both the kms:GenerateDataKey and kms:Decrypt operations.

- \* </p>

- \* </li>

- \* </ul>

- \* </note>

- \* <p>

- \* </p>

- \* <p>

- \* <b>Minimum permissions</b>

- \* </p>

- \* <p>

- \* To run this command, you must have the following permissions:

- \* </p>

- \* <ul>

- \* <li>

- \* <p>

- \* secretsmanager:CreateSecret

- \* </p>

- \* </li>

- \* <li>

- \* <p>

- \* kms:GenerateDataKey - needed only if you use a customer-managed AWS KMS key to encrypt the secret. You do not

- \* need

this permission to use the account's default AWS managed CMK for Secrets Manager.

- \* </p>

- \* </li>

- \* <li>

- \* <p>

- \* kms:Decrypt - needed only if you use a customer-managed AWS KMS key to encrypt the secret. You do not need this



- \* permission to use the account's default AWS managed CMK for Secrets Manager.

</p>

- </li>

</ul>

<p>

<b>Related operations</b>

</p>

- <ul>
- <li>
- <p>
- \* To delete a secret, use <a>DeleteSecret</a>.
- </p>
- </li>
- <li>
- <p>
- \* To modify an existing secret, use <a>UpdateSecret</a>.
- </p>
- </li>
- <li>
- <p>
- \* To create a new version of a secret, use <a>PutSecretValue</a>.
- </p>
- </li>
- <li>
- <p>
- \* To retrieve the encrypted secure string and secure binary values, use <a>GetSecretValue</a>.
- </p>
- </li>
- <li>
- <p>
- \* To retrieve all other details for a secret, use <a>DescribeSecret</a>.

This does not include the encrypted secure

- \* string and secure binary values.

</p>

- </li>
- <li>
- <p>
- \* To retrieve the list of secret versions associated with the current secret, use <a>DescribeSecret</a> and examine the <code>SecretVersionsToStages</code> response value.
- </p>
- </li>
- </ul>
- \*
- \* @param createSecretRequest
- \* @return A Java Future containing the result of the CreateSecret operation returned by the service.
- \* @sample AWSSecretsManagerAsync.CreateSecret
- \* @see <a href="http://docs.aws.amazon.com/goto/WebAPI/secretsmanager-2017-10-17/CreateSecret" target="\_top">AWS

```

*   API Documentation</a>
*/
/**
* <p>
* Stores a new encrypted secret value in the specified secret. To do this, the operation creates a new version and
* attaches it to the secret. The version can contain a new <code>SecretString</code> value or a new
* <code>SecretBinary</code>
value. You can also specify the staging labels that are initially attached to the new
* version.
* </p>
* <note>
* <p>
* The Secrets Manager console uses only the <code>SecretString</code> field. To add binary data to a secret
with
* the <code>SecretBinary</code> field you must use the AWS CLI or one of the AWS SDKs.
* </p>
* </note>
* <ul>
* <li>
* <p>
* If this operation creates the first version for the secret then Secrets Manager automatically attaches the
* staging label <code>AWSCURRENT</code> to the new version.
* </p>
* </li>
* <li>
* <p>
* If another version of this secret already exists, then this operation does not automatically move any staging
* labels other than those that you explicitly specify in the <code>VersionStages</code> parameter.
* </p>
* </li>
* <li>
* <p>
* If this operation moves the staging label <code>AWSCURRENT</code> from another version
to this version (because
* you included it in the <code>StagingLabels</code> parameter) then Secrets Manager also automatically moves
the
* staging label <code>AWSPREVIOUS</code> to the version that <code>AWSCURRENT</code> was
removed from.
* </p>
* </li>
* <li>
* <p>
* This operation is idempotent. If a version with a <code>VersionId</code> with the same value as the
* <code>ClientRequestToken</code> parameter already exists and you specify the same secret data, the
operation
* succeeds but does nothing. However, if the secret data is different, then the operation fails because you cannot
* modify an existing version; you can only create new ones.
* </p>

```

- \*
- \*
- \* **Note**
- \*
- \*
- \*
- \* If you call an operation that needs to encrypt or decrypt the `SecretString` or `SecretBinary` for a secret in the same account as the calling user and that secret doesn't specify a
  - \* AWS KMS encryption key, Secrets Manager uses the account's default AWS managed customer master key (CMK) with the
    - \* alias `aws/secretsmanager`. If this key doesn't already exist in your account then Secrets Manager
      - \* creates it for you automatically. All users in the same AWS account automatically have access to use the default
        - \* CMK. Note that if an Secrets Manager API call results in AWS having to create the account's AWS-managed CMK, it
          - \* can result in a one-time significant delay in returning the result.
  - \* If the secret is in a different AWS account from the credentials calling an API that requires encryption or decryption of the secret value then you must create and use a custom AWS KMS CMK because you can't access the
    - \* default CMK for the account using credentials from a different AWS account. Store the ARN of the CMK in the
      - \* secret when you create the
        - secret or when you update it by including it in the `KMSKeyId`. If you call
          - \* an API that must encrypt or decrypt `SecretString` or `SecretBinary` using
            - credentials from
              - \* a different account then the AWS KMS key policy must grant cross-account access to that other account's user
                - or
                  - \* role for both the `kms:GenerateDataKey` and `kms:Decrypt` operations.

**Minimum permissions**

To run this command, you must have the following permissions:

- \*
- \*
- \*
- \*
- \* `secretsmanager:PutSecretValue`
- \*
- \*
- \*

```

* <p>
* kms:GenerateDataKey - needed only if you use a customer-managed AWS KMS key to encrypt the secret. You
do not
* need this permission to use the account's default AWS managed CMK for Secrets Manager.
* </p>
* </li>
* </ul>
* <p>
* <b>Related
operations</b>
* </p>
* <ul>
* <li>
* <p>
* To retrieve the encrypted value you store in the version of a secret, use <a>GetSecretValue</a>.
* </p>
* </li>
* <li>
* <p>
* To create a secret, use <a>CreateSecret</a>.
* </p>
* </li>
* <li>
* <p>
* To get the details for a secret, use <a>DescribeSecret</a>.
* </p>
* </li>
* <li>
* <p>
* To list the versions attached to a secret, use <a>ListSecretVersionIds</a>.
* </p>
* </li>
* </ul>
*
* @param putSecretValueRequest
* @return A Java Future containing the result of the PutSecretValue operation returned by the service.
* @sample AWSSecretsManagerAsync.PutSecretValue
* @see <a href="http://docs.aws.amazon.com/goto/WebAPI/secretsmanager-2017-10-17/PutSecretValue"
target="_top">AWS
*   API Documentation</a>
*/
/**
* <p>
* Modifies many of the details of the specified secret. If you
include a <code>ClientRequestToken</code> and
* <i>either</i> <code>SecretString</code> or <code>SecretBinary</code> then it also creates a new version
attached
* to the secret.

```

\* </p>

\* <p>

\* To modify the rotation configuration of a secret, use <a>RotateSecret</a> instead.

\* </p>

\* <note>

\* <p>

\* The Secrets Manager console uses only the <code>SecretString</code> parameter and therefore limits you to

\* encrypting and storing only a text string. To encrypt and store binary data as part of the version of a secret,

\* you must use either the AWS CLI or one of the AWS SDKs.

\* </p>

\* </note>

\* <ul>

\* <li>

\* <p>

\* If a version with a <code>VersionId</code> with the same value as the <code>ClientRequestToken</code>

parameter

\* already exists, the operation results in an error. You cannot modify an existing version, you can only create a

\* new version.

\* </p>

\* </li>

\* <li>

\* <p>

\* If you include <code>SecretString</code> or <code>SecretBinary</code> to create a new secret version,

Secrets

\* Manager automatically attaches the staging label <code>AWSCURRENT</code> to the new version.

\* </p>

\* </li>

\* </ul>

\* <note>

\* <ul>

\* <li>

\* <p>

\* If you call an operation that needs to encrypt or decrypt the <code>SecretString</code> or

\* <code>SecretBinary</code> for a secret in the same account as the calling user and that secret doesn't specify a

\* AWS KMS encryption key, Secrets Manager uses the account's default AWS managed customer master key

(CMK) with the

\* alias <code>aws/secretsmanager</code>. If this key doesn't already exist in your account then Secrets Manager

\* creates it for you automatically. All users in the same AWS account automatically have access to use the default

\* CMK. Note that if an Secrets Manager API call results in AWS having to create the account's AWS-managed

CMK, it

\* can result in a one-time significant delay in returning the result.

\* </p>

\* </li>

\* <li>

\* <p>

\* If the secret is in a different AWS account from the credentials calling an API that requires encryption or

\* decryption of the secret value then you must create and use a custom AWS KMS CMK because you can't access

the

\* default CMK for the account using credentials from a different AWS account. Store the ARN of the CMK in the secret when you create the secret or when you update it by including it in the `KMSKeyId`. If you call

\* an API that must encrypt or decrypt `SecretString` or `SecretBinary` using credentials from

\* a different account then the AWS KMS key policy must grant cross-account access to that other account's user or

\* role for both the `kms:GenerateDataKey` and `kms:Decrypt` operations.

\* `</p>`

\* `</li>`

\* `</ul>`

\* `</note>`

\* `<p>`

\* **Minimum permissions**

\* `</p>`

\* `<p>`

\* To run this command, you must have the following permissions:

\* `</p>`

\* `<ul>`

\* `<li>`

\* `<p>`

\* `secretsmanager:UpdateSecret`

\* `</p>`

\* `</li>`

\* `<li>`

\* `<p>`

\* `kms:GenerateDataKey` - needed only if you use a custom AWS KMS key to encrypt the secret. You do not need this

\* permission to use the account's AWS managed CMK for Secrets Manager.

\* `</p>`

\* `</li>`

\* `<li>`

\* `<p>`

\* `kms:Decrypt` - needed only if you use a custom AWS KMS key to encrypt the secret. You do not need this permission

\* to use the account's AWS managed CMK for Secrets Manager.

\* `</p>`

\* `</li>`

\* `</ul>`

\* `<p>`

\* **Related operations**

\* `</p>`

\* `<ul>`

\* `<li>`

\* `<p>`

\* To create a new secret, use `CreateSecret`.

\* `</p>`

\* `</li>`

```

* <li>
* <p>
* To add only a new version to an existing secret, use <a>PutSecretValue</a>.
* </p>
* </li>
* <li>
* <p>
* To get the details for a secret, use <a>DescribeSecret</a>.
* </p>
* </li>
* <li>
* <p>
* To list the versions contained in a secret, use <a>ListSecretVersionIds</a>.
* </p>
* </li>
* </ul>
*
* @param updateSecretRequest
* @return A Java Future containing the result of the UpdateSecret operation returned by the service.
* @sample AWSSecretsManagerAsync.UpdateSecret
* @see <a href="http://docs.aws.amazon.com/goto/WebAPI/secretsmanager-2017-10-17/UpdateSecret"
target="_top">AWS
*   API Documentation</a>
*/

```

Found in path(s):

```

* /opt/cola/permits/1738534397_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-
jar/com/amazonaws/services/secretsmanager/AWSSecretsManagerAsync.java

```

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*/

```

Found in path(s):

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* /opt/cola/permits/1738534397_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-

```

jar/com/amazonaws/services/secretsmanager/model/transform/CancelRotateSecretRequestProtocolMarshaller.java  
\* /opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-  
jar/com/amazonaws/services/secretsmanager/model/UpdateSecretRequest.java  
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jar/com/amazonaws/services/secretsmanager/AWSSecretsManagerAsyncClient.java  
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jar/com/amazonaws/services/secretsmanager/model/transform/DeleteResourcePolicyRequestMarshaller.java  
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jar/com/amazonaws/services/secretsmanager/model/CancelRotateSecretRequest.java  
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jar/com/amazonaws/services/secretsmanager/model/transform/ListSecretVersionIdsRequestMarshaller.java  
\* /opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-  
jar/com/amazonaws/services/secretsmanager/model/transform/GetRandomPasswordRequestProtocolMarshaller.java  
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jar/com/amazonaws/services/secretsmanager/model/transform/UntagResourceRequestProtocolMarshaller.java  
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\* /opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-jar/com/amazonaws/services/secretsmanager/model/transform/CreateSecretRequestProtocolMarshaller.java  
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\* /opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-jar/com/amazonaws/services/secretsmanager/model/DecryptionFailureException.java

\* /opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-jar/com/amazonaws/services/secretsmanager/AbstractAWSSecretsManager.java

\* /opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-jar/com/amazonaws/services/secretsmanager/model/transform/GetResourcePolicyRequestProtocolMarshaller.java

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\* /opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-jar/com/amazonaws/services/secretsmanager/model/UpdateSecretResult.java

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\*  
/opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-  
jar/com/amazonaws/services/secretsmanager/model/transform/ListSecretVersionIdsRequestProtocolMarshaller.java  
\* /opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-  
jar/com/amazonaws/services/secretsmanager/model/CreateSecretResult.java  
\* /opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-  
jar/com/amazonaws/services/secretsmanager/model/transform/GetSecretValueRequestProtocolMarshaller.java  
\* /opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-  
jar/com/amazonaws/services/secretsmanager/model/PutSecretValueResult.java  
\* /opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-  
jar/com/amazonaws/services/secretsmanager/model/transform/CancelRotateSecretResultJsonUnmarshaller.java  
\*  
/opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-  
jar/com/amazonaws/services/secretsmanager/AWSSecretsManagerClientBuilder.java  
\* /opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-  
jar/com/amazonaws/services/secretsmanager/model/transform/SecretListEntryJsonUnmarshaller.java  
\* /opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-  
jar/com/amazonaws/services/secretsmanager/AWSSecretsManagerAsyncClientBuilder.java  
\* /opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-  
jar/com/amazonaws/services/secretsmanager/model/transform/CancelRotateSecretRequestMarshaller.java  
\* /opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-  
jar/com/amazonaws/services/secretsmanager/model/transform/UpdateSecretRequestProtocolMarshaller.java  
\*  
/opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-  
jar/com/amazonaws/services/secretsmanager/model/transform/ListSecretsResultJsonUnmarshaller.java  
\* /opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-  
jar/com/amazonaws/services/secretsmanager/model/ListSecretsRequest.java  
\* /opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-  
jar/com/amazonaws/services/secretsmanager/model/transform/UpdateSecretResultJsonUnmarshaller.java  
\* /opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-  
jar/com/amazonaws/services/secretsmanager/model/transform/GetRandomPasswordRequestMarshaller.java  
\* /opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-  
jar/com/amazonaws/services/secretsmanager/model/EncryptionFailureException.java  
\*  
/opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-  
jar/com/amazonaws/services/secretsmanager/model/transform/UpdateSecretVersionStageRequestProtocolMarshaller.java  
\* /opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-  
jar/com/amazonaws/services/secretsmanager/model/CreateSecretRequest.java  
\* /opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-  
jar/com/amazonaws/services/secretsmanager/model/SecretVersionsListEntry.java  
\* /opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-  
jar/com/amazonaws/services/secretsmanager/model/RotateSecretResult.java  
\* /opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-  
jar/com/amazonaws/services/secretsmanager/model/transform/UpdateSecretRequestMarshaller.java  
\* /opt/cola/permits/1738534397\_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-  
jar/com/amazonaws/services/secretsmanager/model/transform/DeleteSecretRequestProtocolMarshaller.java

```
*
/opt/cola/permits/1738534397_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-
jar/com/amazonaws/services/secretsmanager/model/InvalidParameterException.java
* /opt/cola/permits/1738534397_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-
jar/com/amazonaws/services/secretsmanager/model/TagResourceResult.java
* /opt/cola/permits/1738534397_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-
jar/com/amazonaws/services/secretsmanager/package-info.java
* /opt/cola/permits/1738534397_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-
jar/com/amazonaws/services/secretsmanager/model/transform/UntagResourceRequestMarshaller.java
* /opt/cola/permits/1738534397_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-
jar/com/amazonaws/services/secretsmanager/model/transform/TagResourceResultJsonUnmarshaller.java
*
/opt/cola/permits/1738534397_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-
jar/com/amazonaws/services/secretsmanager/model/TagResourceRequest.java
* /opt/cola/permits/1738534397_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-
jar/com/amazonaws/services/secretsmanager/model/transform/ListSecretsRequestMarshaller.java
* /opt/cola/permits/1738534397_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-
jar/com/amazonaws/services/secretsmanager/model/GetResourcePolicyResult.java
* /opt/cola/permits/1738534397_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-
jar/com/amazonaws/services/secretsmanager/model/transform/SecretVersionsListEntryMarshaller.java
* /opt/cola/permits/1738534397_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-
jar/com/amazonaws/services/secretsmanager/model/RotateSecretRequest.java
* /opt/cola/permits/1738534397_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-
jar/com/amazonaws/services/secretsmanager/model/UntagResourceRequest.java
No license file was found, but licenses were detected in source scan.
```

```
/*
* Copyright 2013-2018 Amazon.com, Inc. or its affiliates. All Rights Reserved.
*
* Licensed under the Apache License, Version 2.0 (the "License"). You may not use this file except in compliance
with
* the License. A copy of the License is located at
*
* http://aws.amazon.com/apache2.0
*
* or in the "license" file accompanying this file. This file is distributed on an "AS IS" BASIS, WITHOUT
WARRANTIES OR
* CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing
permissions
* and limitations under the License.
```

```
*/
/**
* <p>
* Creates a new secret. A secret in Secrets Manager consists of both the protected secret data and the important
* information needed to manage the secret.
* </p>
* <p>
* Secrets Manager stores the encrypted secret data in one of a collection of "versions" associated with the secret.
```

\* Each version contains a copy of the encrypted secret data. Each version is associated with one or more

- \* "staging labels" that identify where the version is in the rotation cycle. The
- \* `SecretVersionsToStages` field of the secret contains the mapping of staging labels to the active
- \* versions of the secret. Versions without a staging label are considered deprecated and are not included in the
- \* list.

\* `</p>`

\* `<p>`

\* You provide the secret data to be encrypted by putting text in either the `SecretString` parameter or

or

- \* binary data in the `SecretBinary` parameter, but not both. If you include

`SecretString` or

- \* `SecretBinary` then Secrets Manager also creates an initial secret version and automatically attaches
- \* the staging label `AWSCURRENT` to the new version.

\* `</p>`

- \* `<note>`
- \* `<ul>`
- \* `<li>`
- \* `<p>`

\* If you call an operation that needs to encrypt or decrypt the

`SecretString` or

- \* `SecretBinary` for a secret in the same account as the calling user and that secret doesn't specify a
- \* AWS KMS encryption key, Secrets Manager uses the account's default AWS managed customer master key (CMK) with the
- \* alias `aws/secretsmanager`. If this key doesn't already exist in your account then Secrets Manager
- \* creates it for you automatically. All users in the same AWS account automatically have access to use the default
- \* CMK. Note that if an Secrets Manager API call results in AWS having to create the account's AWS-managed

CMK, it

- \* can result in a one-time significant delay in returning the result.

\* `</p>`

- \* `</li>`
- \* `<li>`
- \* `<p>`

\* If the secret is in a different AWS account from the credentials calling an API that requires encryption or

\* decryption of the secret value then you must create and use a custom AWS KMS CMK because you can't access

the

- \* default CMK

for the account using credentials from a different AWS account. Store the ARN of the CMK in the

- \* secret when you create the secret or when you update it by including it in the `KMSKeyId`. If you

call

- \* an API that must encrypt or decrypt `SecretString` or `SecretBinary` using

credentials from

- \* a different account then the AWS KMS key policy must grant cross-account access to that other account's user

or

- \* role for both the `kms:GenerateDataKey` and `kms:Decrypt` operations.

\* `</p>`

- \* `</li>`

\* </ul>

\* </note>

\* <p>

\* </p>

\* <p>

\* <b>Minimum permissions</b>

\* </p>

\* <p>

\* To run this command, you must have the following permissions:

\* </p>

\* <ul>

\* <li>

\* <p>

\* secretsmanager:CreateSecret

\* </p>

\* </li>

\* <li>

\* <p>

\* kms:GenerateDataKey - needed only if you use a customer-managed AWS KMS key to encrypt the secret. You do not

do not

\* need

this permission to use the account's default AWS managed CMK for Secrets Manager.

\* </p>

\* </li>

\* <li>

\* <p>

\* kms:Decrypt - needed only if you use a customer-managed AWS KMS key to encrypt the secret. You do not

need this

\* permission to use the account's default AWS managed CMK for Secrets Manager.

\* </p>

\* </li>

\* </ul>

\* <p>

\* <b>Related operations</b>

\* </p>

\* <ul>

\* <li>

\* <p>

\* To delete a secret, use <a>DeleteSecret</a>.

\* </p>

\* </li>

\* <li>

\* <p>

\* To modify an existing secret, use <a>UpdateSecret</a>.

\* </p>

\* </li>

\* <li>

\* <p>

\* To create a new version of a secret, use `<a>PutSecretValue</a>`.

\* `</p>`

\* `</li>`

\* `<li>`

\* `<p>`

\* To retrieve the encrypted secure string and secure binary values, use `<a>GetSecretValue</a>`.

\* `</p>`

\* `</li>`

\* `<li>`

\* `<p>`

\* To retrieve all other details for a secret, use `<a>DescribeSecret</a>`.

This does not include the encrypted secure

\* string and secure binary values.

\* `</p>`

\* `</li>`

\* `<li>`

\* `<p>`

\* To retrieve the list of secret versions associated with the current secret, use `<a>DescribeSecret</a>` and examine the `<code>SecretVersionsToStages</code>` response value.

\* `</p>`

\* `</li>`

\* `</ul>`

\*

\* `@param createSecretRequest`

\* `@return` Result of the CreateSecret operation returned by the service.

\* `@throws InvalidParameterException`

\* You provided an invalid value for a parameter.

\* `@throws InvalidRequestException`

\* You provided a parameter value that is not valid for the current state of the resource.`</p>`

\* `<p>`

\* Possible causes:

\* `</p>`

\* `<ul>`

\* `<li>`

\* `<p>`

\* You tried to perform the operation on a secret that's currently marked deleted.

\* `</p>`

\*

`</li>`

\* `<li>`

\* `<p>`

\* You tried to enable rotation on a secret that doesn't already have a Lambda function ARN configured and you didn't include such an ARN as a parameter in this call.

\* `</p>`

\* `</li>`

\* `@throws LimitExceededException`

\* The request failed because it would exceed one of the Secrets Manager internal limits.

\* `@throws EncryptionFailureException`



```

* Secrets Manager can't encrypt the protected secret text using the provided KMS key. Check that the
* customer master key (CMK) is available, enabled, and not in an invalid state. For more information, see
* <a href="http://docs.aws.amazon.com/kms/latest/developerguide/key-state.html">How Key State Affects
Use
* of a Customer Master Key</a>.
* @throws ResourceExistsException
* A resource with the ID you requested already exists.
* @throws ResourceNotFoundException
* We can't find the resource that you asked for.
* @throws MalformedPolicyDocumentException
* The policy document that you provided isn't valid.
* @throws InternalServiceErrorException
* An error occurred on the server side.
* @throws PreconditionNotMetException
* The request failed because you did not complete all the prerequisite steps.
* @sample AWSSecretsManager.CreateSecret
* @see <a href="http://docs.aws.amazon.com/goto/WebAPI/secretsmanager-2017-10-17/CreateSecret"
target="_top">AWS
* API Documentation</a>
*/
/**
* <p>
* Stores a new encrypted secret value in the specified secret. To do this, the operation creates a new version and
* attaches it to the secret. The version can contain a new <code>SecretString</code> value or a new
* <code>SecretBinary</code> value. You can also specify the staging labels that are initially attached to the new
* version.
*
* </p>
* <note>
* <p>
* The Secrets Manager console uses only the <code>SecretString</code> field. To add binary data to a secret
with
* the <code>SecretBinary</code> field you must use the AWS CLI or one of the AWS SDKs.
* </p>
* </note>
* <ul>
* <li>
* <p>
* If this operation creates the first version for the secret then Secrets Manager automatically attaches the
* staging label <code>AWSCURRENT</code> to the new version.
* </p>
* </li>
* <li>
* <p>
* If another version of this secret already exists, then this operation does not automatically move any staging
* labels other than those that you explicitly specify in the <code>VersionStages</code> parameter.
* </p>
* </li>

```

- \* `<li>`
- \* `<p>`
- \* If this operation moves the staging label `<code>AWSCURRENT</code>` from another version to this version (because
  - \* you included it in the `<code>StagingLabels</code>` parameter) then Secrets Manager also automatically moves the
    - \* staging label `<code>AWSPREVIOUS</code>` to the version that `<code>AWSCURRENT</code>` was removed from.
- \* `</p>`
- \* `</li>`
- \* `<li>`
- \* `<p>`
- \* This operation is idempotent. If a version with a `<code>VersionId</code>` with the same value as the
  - \* `<code>ClientRequestToken</code>` parameter already exists and you specify the same secret data, the operation
    - \* succeeds but does nothing. However, if the secret data is different, then the operation fails because you cannot
      - \* modify an existing version; you can only create new ones.
- \* `</p>`
- \* `</li>`
- \* `</ul>`
- \* `<note>`
- \* `<ul>`
- \* `<li>`
- \* `<p>`
- \* If you call an operation that needs to encrypt or decrypt the `<code>SecretString</code>` or
  - \* `<code>SecretBinary</code>` for a secret in the same account as the calling user and that secret doesn't specify a
    - \* AWS KMS encryption key, Secrets Manager uses the account's default AWS managed customer master key (CMK) with the
      - \* alias `<code>aws/secretsmanager</code>`. If this key doesn't already exist in your account then Secrets Manager
        - \* creates it for you automatically. All users in the same AWS account automatically have access to use the default
          - \* CMK. Note that if an Secrets Manager API call results in AWS having to create the account's AWS-managed CMK, it
            - \* can result in a one-time significant delay in returning the result.
  - \* `</p>`
  - \* `</li>`
  - \* `<li>`
  - \* `<p>`
  - \* If the secret is in a different AWS account from the credentials calling an API that requires encryption or
    - \* decryption of the secret value then you must create and use a custom AWS KMS CMK because you can't access the
      - \* default CMK for the account using credentials from a different AWS account. Store the ARN of the CMK in the
        - \* secret when you create the secret or when you update it by including it in the `<code>KMSKeyId</code>`. If you call
          - \* an API that must
            - \* encrypt or decrypt `<code>SecretString</code>` or `<code>SecretBinary</code>` using credentials from
              - \* a different account then the AWS KMS key policy must grant cross-account access to that other account's user
                - \* or
                  - \* role for both the `kms:GenerateDataKey` and `kms:Decrypt` operations.

\* </p>

\* </li>

\* </ul>

\* </note>

\* <p>

\* <b>Minimum permissions</b>

\* </p>

\* <p>

\* To run this command, you must have the following permissions:

\* </p>

\* <ul>

\* <li>

\* <p>

\* secretsmanager:PutSecretValue

\* </p>

\* </li>

\* <li>

\* <p>

\* kms:GenerateDataKey - needed only if you use a customer-managed AWS KMS key to encrypt the secret. You do not

\* need this permission to use the account's default AWS managed CMK for Secrets Manager.

\* </p>

\* </li>

\* </ul>

\* <p>

\* <b>Related operations</b>

\* </p>

\* <ul>

\* <li>

\* <p>

\* To retrieve the encrypted value you store in the version of a secret, use <a>GetSecretValue</a>.

\* </p>

\* </li>

\* <li>

\* <p>

\* To create a secret, use <a>CreateSecret</a>.

\* </p>

\* </li>

\* <li>

\* <p>

\* To get the details for a secret, use <a>DescribeSecret</a>.

\* </p>

\* </li>

\* <li>

\* <p>

\* To list the versions attached to a secret, use <a>ListSecretVersionIds</a>.

\* </p>

```

* </li>
* </ul>
*
* @param putSecretValueRequest
* @return Result of the PutSecretValue operation returned by the service.
* @throws InvalidParameterException
*     You provided an invalid value for a parameter.
* @throws InvalidRequestException
*     You provided a parameter value that is not valid for the current state of the resource.</p>
*     <p>
*     Possible causes:
*     </p>
*     <ul>
*     <li>
*     <p>
*     You tried to perform the operation on a secret
that's currently marked deleted.
*     </p>
*     </li>
*     <li>
*     <p>
*     You tried to enable rotation on a secret that doesn't already have a Lambda function ARN configured and
*     you didn't include such an ARN as a parameter in this call.
*     </p>
*     </li>
* @throws LimitExceededException
*     The request failed because it would exceed one of the Secrets Manager internal limits.
* @throws EncryptionFailureException
*     Secrets Manager can't encrypt the protected secret text using the provided KMS key. Check that the
*     customer master key (CMK) is available, enabled, and not in an invalid state. For more information, see
*     <a href="http://docs.aws.amazon.com/kms/latest/developerguide/key-state.html">How Key State Affects
Use
*     of a Customer Master Key</a>.
* @throws ResourceExistsException
*     A resource with
the ID you requested already exists.
* @throws ResourceNotFoundException
*     We can't find the resource that you asked for.
* @throws InternalServiceErrorException
*     An error occurred on the server side.
* @sample AWSSecretsManager.PutSecretValue
* @see <a href="http://docs.aws.amazon.com/goto/WebAPI/secretsmanager-2017-10-17/PutSecretValue"
target="_top">AWS
*     API Documentation</a>
*/
/**
* <p>
* Modifies many of the details of the specified secret. If you include a <code>ClientRequestToken</code> and

```

\* *either* `SecretString` or `SecretBinary` then it also creates a new version attached

\* to the secret.

\*

\*

\* To modify the rotation configuration of a secret, use [RotateSecret](#) instead.

\*

\*

\*

\* The Secrets Manager console uses only the `SecretString` parameter and therefore limits you to encrypting

and storing only a text string. To encrypt and store binary data as part of the version of a secret,

\* you must use either the AWS CLI or one of the AWS SDKs.

\*

\*

\*

\* -

\*

\* If a version with a `VersionId` with the same value as the `ClientRequestToken` parameter

\* already exists, the operation results in an error. You cannot modify an existing version, you can only create a new version.

\*

\* -

\* -

\*

\* If you include `SecretString` or `SecretBinary` to create a new secret version, Secrets

\* Manager automatically attaches the staging label `AWSCURRENT` to the new version.

\*

\* -

\*

\*

\*

\* -

\*

\* If you call an operation that needs to encrypt or decrypt the `SecretString` or

\* `SecretBinary` for a secret in the same account

as the calling user and that secret doesn't specify a

\* AWS KMS encryption key, Secrets Manager uses the account's default AWS managed customer master key (CMK) with the

\* alias `aws/secretsmanager`. If this key doesn't already exist in your account then Secrets Manager

\* creates it for you automatically. All users in the same AWS account automatically have access to use the default

\* CMK. Note that if an Secrets Manager API call results in AWS having to create the account's AWS-managed

CMK, it

\* can result in a one-time significant delay in returning the result.

\*

\* -

- \* <li>
- \* <p>
- \* If the secret is in a different AWS account from the credentials calling an API that requires encryption or decryption of the secret value then you must create and use a custom AWS KMS CMK because you can't access the
- \* default CMK for the account using credentials from a different AWS account. Store the ARN of the CMK in the
- \* secret when you create the secret or when you update it by including it in the <code>KMSKeyId</code>. If you call
- \* an API that must encrypt or decrypt <code>SecretString</code> or <code>SecretBinary</code> using credentials from
- \* a different account then the AWS KMS key policy must grant cross-account access to that other account's user or
- \* role for both the kms:GenerateDataKey and kms:Decrypt operations.
- \* </p>
- \* </li>
- \* </ul>
- \* </note>
- \* <p>
- \* <b>Minimum permissions</b>
- \* </p>
- \* <p>
- \* To run this command, you must have the following permissions:
- \* </p>
- \* <ul>
- \* <li>
- \* <p>
- \* secretsmanager:UpdateSecret
- \* </p>
- \* </li>
- \* <li>
- \* <p>
- \* kms:GenerateDataKey - needed only if you use a custom AWS KMS key to encrypt the secret. You do not need this
- \* permission to use the account's AWS managed CMK for Secrets Manager.
- \* </p>
- \* </li>
- \* <li>
- \* <p>
- \* kms:Decrypt - needed only if you use a custom AWS KMS key to encrypt the secret. You do not need this
- \* permission
- \* to use the account's AWS managed CMK for Secrets Manager.
- \* </p>
- \* </li>
- \* </ul>
- \* <p>
- \* <b>Related operations</b>
- \* </p>

- \* <ul>
- \* <li>
- \* <p>
- \* To create a new secret, use <a>CreateSecret</a>.
- \* </p>
- \* </li>
- \* <li>
- \* <p>
- \* To add only a new version to an existing secret, use <a>PutSecretValue</a>.
- \* </p>
- \* </li>
- \* <li>
- \* <p>
- \* To get the details for a secret, use <a>DescribeSecret</a>.
- \* </p>
- \* </li>
- \* <li>
- \* <p>
- \* To list the versions contained in a secret, use <a>ListSecretVersionIds</a>.
- \* </p>
- \* </li>
- \* </ul>
- \*
- \* @param updateSecretRequest
- \* @return Result of the UpdateSecret operation returned by the service.
- \* @throws InvalidParameterException
- \* You provided an invalid value for a parameter.
- \* @throws InvalidRequestException
- \* You provided a parameter value that is not valid for the current state of the resource.</p>
- \* <p>
- \* Possible causes:
- \* </p>
- \* <ul>
- \* <li>
- \* <p>
- \* You tried to perform the operation on a secret that's currently marked deleted.
- \* </p>
- \* </li>
- \* <li>
- \* <p>
- \* You tried to enable rotation on a secret that doesn't already have a Lambda function ARN configured and you didn't include such an ARN as a parameter in this call.
- \* </p>
- \* </li>
- \* @throws LimitExceededException
- \* The request failed because it would exceed one of the Secrets Manager internal limits.
- \* @throws EncryptionFailureException
- \* Secrets Manager can't encrypt the protected secret text using the provided KMS key. Check that the

```

*
customer master key (CMK) is available, enabled, and not in an invalid state. For more information, see
* <a href="http://docs.aws.amazon.com/kms/latest/developerguide/key-state.html">How Key State Affects
Use
* of a Customer Master Key</a>.
* @throws ResourceExistsException
* A resource with the ID you requested already exists.
* @throws ResourceNotFoundException
* We can't find the resource that you asked for.
* @throws MalformedPolicyDocumentException
* The policy document that you provided isn't valid.
* @throws InternalServiceErrorException
* An error occurred on the server side.
* @throws PreconditionNotMetException
* The request failed because you did not complete all the prerequisite steps.
* @sample AWSSecretsManager.UpdateSecret
* @see <a href="http://docs.aws.amazon.com/goto/WebAPI/secretsmanager-2017-10-17/UpdateSecret"
target="_top">AWS
*
API Documentation</a>
*/

```

Found in path(s):

```

* /opt/cola/permits/1738534397_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-
jar/com/amazonaws/services/secretsmanager/AWSSecretsManagerClient.java
* /opt/cola/permits/1738534397_1688660530.7474215/0/aws-java-sdk-secretsmanager-1-11-409-sources-1-
jar/com/amazonaws/services/secretsmanager/AWSSecretsManager.java

```

## 1.206 kinesys 2.20.8

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```
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jar/checkstyle.xml
* /opt/cola/permits/1738534389_1688660721.2828984/0/schema-registry-build-tools-1-1-14-sources-
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### 1.218.1 Available under license :

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## 1.219 free-type 2.13.1-r0

### 1.219.1 Available under license :

```
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#  
# All lines in this file are patterns (relative to the top-level directory),  
# including the comment lines; this means that e.g. `FTL.TXT' matches all  
# files that have this string in the file name (including the path relative  
# to the current directory, always starting with `./').  
#  
# Don't put empty lines into this file!  
#  
builds/unix/pkg.m4  
#  
docs/FTL.TXT
```

```
docs/GPLv2.TXT
#
include/freetype/internal/fthash.h
#
src/base/fthash.c
src/base/md5.c
src/base/md5.h
#
src/bdf/bdf.c
src/bdf/bdf.h
src/bdf/bdfdrivr.c
src/bdf/bdfdrivr.h
src/bdf/bdferror.h
src/bdf/bdflib.c
src/bdf/module.mk
src/bdf/README
src/bdf/rules.mk
#
src/pcf/module.mk
src/pcf/pcf.c
src/pcf/pcf.h
src/pcf/pcfdrivr.c
src/pcf/pcfdrivr.h
src/pcf/pcferror.h
src/pcf/pcfread.c
src/pcf/pcfread.h
src/pcf/pcfutil.c
src/pcf/pcfutil.h
src/pcf/README
src/pcf/rules.mk
#
src/gzip/adler32.c
src/gzip/ftzconf.c
src/gzip/infblock.c
src/gzip/infblock.h
src/gzip/infcodes.c
src/gzip/infcodes.h
src/gzip/inffixed.h
src/gzip/inflate.c
src/gzip/inftrees.c
src/gzip/inftrees.h
src/gzip/infutil.c
src/gzip/infutil.h
src/gzip/zconf.h
src/gzip/zlib.h
src/gzip/zutil.c
src/gzip/zutil.h
#
```

src/tools/apinames.c  
src/tools/frandom/frandom.c  
#  
subprojects/dlg  
#  
#  
EOF

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## 1.224 musl-utils 1.2.4-r1

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```
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```

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<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice
```

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<one line to give the program's name and a brief idea of what it does.>

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If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

```
Gnomovision version 69, Copyright (C) 19xx name of author
Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.
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under certain conditions; type `show c' for details.
```

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```
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program `Gnomovision' (a program to direct compilers to make passes
at assemblers) written by James Hacker.
```

<signature of Ty Coon>, 1 April 1989  
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That's all there is to it!

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