Java Math Methods

❮ Previous   Next ❯

The Java Math class has many methods that allows you to perform mathematical tasks on numbers.

All Math Methods

A list of all Math methods can be found in the table below:

Method	Description	Return Type
abs(x)	Returns the absolute value of x	double|float|int|long
acos(x)	Returns the arccosine of x, in radians	double
addExact(x, y)	Returns the sum of x and y	int|long
asin(x)	Returns the arcsine of x, in radians	double
atan(x)	Returns the arctangent of x as a numeric value between -PI/2 and PI/2 radians	double
atan2(y,x)	Returns the angle theta from the conversion of rectangular coordinates (x, y) to polar coordinates (r, theta).	double
cbrt(x)	Returns the cube root of x	double
ceil(x)	Returns the value of x rounded up to its nearest integer	double

W3schools logo

Tutorials ▾   Exercises ▾   Services ▾   🔍   ◑   Sign Up   Log in

☰   .   CSS   JAVASCRIPT   SQL   PYTHON   JAVA   PHP   HOW TO   W3.CSS   C

cosh(x)	Returns the hyperbolic cosine of a double value	double
decrementExact(x)	Returns x-1	int|long
exp(x)	Returns the value of E^x	double
expm1(x)	Returns e^x -1	double
floor(x)	Returns the value of x rounded down to its nearest integer	double
floorDiv(x, y)	Returns the division between x and y rounded down	int|long
floorMod(x, y)	Returns the remainder of a division between x and y where the result of the division was rounded down	int|long
getExponent(x)	Returns the unbiased exponent used in x	int
hypot(x, y)	Returns sqrt(x^2 +y^2) without intermediate overflow or underflow	double
IEEEremainder(x, y)	Computes the remainder operation on x and y as prescribed by the IEEE 754 standard	double
incrementExact(x)	Returns x+1	int|double
log(x)	Returns the natural logarithm (base E) of x	double
log10(x)	Returns the base 10 logarithm of x	double
log1p(x)	Returns the natural logarithm (base E) of the sum of x and 1	double
max(x, y)	Returns the number with the highest value	double|float|int|long
min(x, y)	Returns the number with the lowest value	double|float|int|long
multiplyExact(x, y)	Returns the result of x multiplied with y	int|long
negateExact(x)	Returns the negation of x	int|long
nextAfter(x, y)	Returns the floating point number adjacent to x in the direction of y	double|float

	direction of positive infinity	
[pow(x, y)](#)	Returns the value of x to the power of y	double
[random()](#)	Returns a random number between 0 and 1	double
[rint(x)](#)	Returns the double value that is closest to x and equal to a mathematical integer	double
[round(x)](#)	Returns the value of x rounded to its nearest integer	long|int
[scalb(x, y)](#)	Returns x multiplied by 2 to the power of y	double|float
[signum(x)](#)	Returns the sign of x	double|float
[sin(x)](#)	Returns the sine of x (x is in radians)	double
[sinh(x)](#)	Returns the hyperbolic sine of a double value	double
[sqrt(x)](#)	Returns the square root of x	double
[subtractExact(x, y)](#)	Returns the result of x minus y	int|long
[tan(x)](#)	Returns the tangent of an angle	double
[tanh(x)](#)	Returns the hyperbolic tangent of a double value	double
[toDegrees(x)](#)	Converts an angle measured in radians to an approx. equivalent angle measured in degrees	double
[toIntExact(x)](#)	Converts a long value to an int	int
[toRadians(x)](#)	Converts an angle measured in degrees to an approx. angle measured in radians	double
[ulp(x)](#)	Returns the size of the unit of least precision (ulp) of x	double|float

Note: All Math methods are `static` .

Related Pages

[Java Math Tutorial](#)

Sign Up   Log in

CSS   JAVASCRIPT   SQL   PYTHON   JAVA   PHP   HOW TO   W3.CSS   C

W3schools Pathfinder

Track your progress - it's free!   Sign Up   Log in

COLOR PICKER

SPACES   UPGRADE   AD-FREE

NEWSLETTER   GET CERTIFIED   CONTACT US

Top Tutorials

HTML Tutorial
CSS Tutorial
JavaScript Tutorial
How To Tutorial
SQL Tutorial
Python Tutorial
W3.CSS Tutorial
Bootstrap Tutorial
PHP Tutorial
Java Tutorial
C++ Tutorial
jQuery Tutorial

Top References

HTML Reference
CSS Reference
JavaScript Reference
SQL Reference
Python Reference
W3.CSS Reference
Bootstrap Reference
PHP Reference
HTML Colors
Java Reference
Angular Reference
jQuery Reference

Top Examples

Get Certified
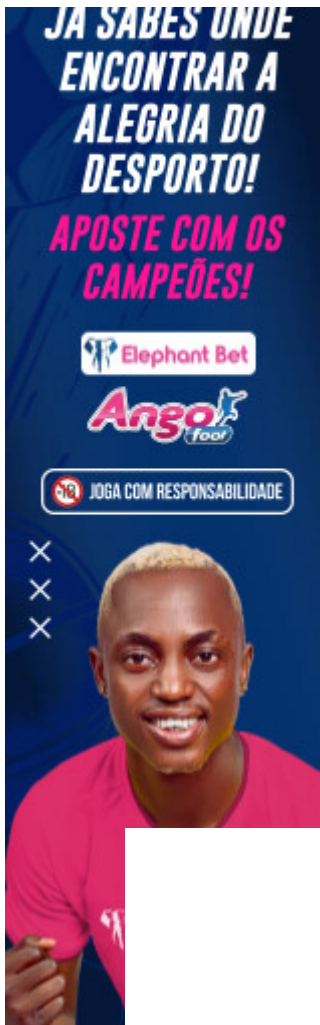
HTML Certificate

W3.CSS Examples
Bootstrap Examples
PHP Examples
Java Examples
XML Examples
jQuery Examples

jQuery Certificate
Java Certificate
C++ Certificate
C# Certificate
XML Certificate

FORUM   ABOUT   CLASSROOM

W3Schools is optimized for learning and training. Examples might be simplified to improve reading and learning.
Tutorials, references, and examples are constantly reviewed to avoid errors, but we cannot warrant full correctness
of all content. While using W3Schools, you agree to have read and accepted our terms of use, cookie and privacy policy.

Copyright 1999-2024 by Refsnes Data. All Rights Reserved. W3Schools is Powered by W3.CSS.