Java Math

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

Math.max(*x*,*y*)

The Math.max(*x*,*y*) method can be used to find the highest value of *x* and *y*:

Example

```
Math.max(5, 10);
```

Run example »

Math.min(*x*,*y*)

The Math.min(*x*,*y*) method can be used to find the lowest value of of *x* and *y*:

Example

```
Math.min(5, 10);
```

Run example »

Math.sqrt(*x*)

The Math.sqrt(*x*) method returns the square root of *x*:

Example

```
Math.sqrt(64);
```

Run example »

Math.abs(*x*)

The Math.abs(*x*) method returns the absolute (positive) value of *x*:

Example

```
Math.abs(-4.7)
```

Run example »

Math.random()

Math.random() returns a random number between 0 (inclusive), and 1 (exclusive):

Example

```
Math.random();
```

Run example »

All Math Methods

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

Method	Description
abs(x)	Returns the absolute value of x
acos(x)	Returns the arccosine of x, in radians
asin(x)	Returns the arcsine of x, in radians
atan(x)	Returns the arctangent of x as a numeric value between -PI/2 and PI/2 radians
cbrt(x)	Returns the cube root of x
ceil(x)	Returns the value of x rounded up to its nearest integer
copySign(x, y)	Returns the first floating point x with the sign of the second floating point y
cos(x)	Returns the cosine of x (x is in radians)
cosh(x)	Returns the hyperbolic cosine of a double value
exp(x)	Returns the value of E^x
expm1(x)	Returns e^x -1
floor(x)	Returns the value of x rounded down to its nearest integer
getExponent(x)	Returns the unbiased exponent used in x
hypot(x, y)	Returns sqrt(x^2 +y^2) without intermediate overflow or underflow
IEEEremainder(x, y)	Computes the remainder operation on x and y as prescribed by the IEEE 754 standard
log(x)	Returns the natural logarithm (base E) of x
log10(x)	Returns the base 10 logarithm of x
log1(x)	Returns the natural logarithm (base E) of the sum of x and 1
max(x, y)	Returns the number with the highest value
min(x, y)	Returns the number with the lowest value
nextAfter(x, y)	Returns the floating point number adjacent to x in the direction

	of y
nextUp(x)	Returns the floating point value adjacent to x in the direction of positive infinity
pow(x, y)	Returns the value of x to the power of y
random()	Returns a random number between 0 and 1
round(x)	Returns the value of x rounded to its nearest integer
rint()	Returns the double value that is closest to x and equal to a mathematical integer
signum(x)	Returns the sign of x
sin(x)	Returns the sine of x (x is in radians)
sinh(x)	Returns the hyperbolic sine of a double value
sqrt(x)	Returns the square root of x
tan(x)	Returns the tangent of an angle
tanh(x)	Returns the hyperbolic tangent of a double value
toDegrees(x)	Converts an angle measured in radians to an approx. equivalent angle measured in degrees
toRadians(x)	Converts an angle measured in degrees to an approx. angle measured in radians
ulp(x)	Returns the size of an ulp of x

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