

# Math

## Property Summery

|        |                          |   |
|--------|--------------------------|---|
| Number | <a href="#">#E</a>       | Euler's constant and the base of natural logarithms.    |
| Number | <a href="#">#LN10</a>    | Natural logarithm of 10.                                |
| Number | <a href="#">#LN2</a>     | Natural logarithm of 2.                                 |
| Number | <a href="#">#LOG10E</a>  | Base 10 logarithm of E.                                 |
| Number | <a href="#">#LOG2E</a>   | Base 2 logarithm of E.                                  |
| Number | <a href="#">#PI</a>      | Ratio of the circumference of a circle to its diameter. |
| Number | <a href="#">#SQRT1_2</a> | Square root of 1/2.                                     |
| Number | <a href="#">#SQRT2</a>   | Square root of 2.                                       |

## Method Summery

|        |  |  |
|--------|--|--|
| Number | <a href="#">#abs(x)</a>                        | Returns the absolute value of a number.  |
| Number | <a href="#">#acos(x)</a>                       | Returns the arccosine (in radians) of a number.  |
| Number | <a href="#">#asin(x)</a>                       | Returns the arcsine (in radians) of a number.  |
| Number | <a href="#">#atan(x)</a>                       | Returns the arctangent (in radians) of a number.   |
| Number | <a href="#">#atan2(y, x)</a>                   | Returns the arctangent of the quotient of its arguments.   |
| Number | <a href="#">#ceil(x)</a>                       | Returns the smallest integer greater than or equal to a number.  |
| Number | <a href="#">#cos(x)</a>                        | Returns the cosine of a number.  |
| Number | <a href="#">#exp(x)</a>                        | Returns E*number, where number is the argument, and E is Euler's constant, the base of the natural logarithms. |
| Number | <a href="#">#floor(x)</a>                      | Returns the largest integer less than or equal to a number.  |
| Number | <a href="#">#log(x)</a>                        | Returns the natural logarithm (base E) of a number.  |
| Number | <a href="#">#max(value1, value2, [valueN])</a> | Returns the greater of two (or more) numbers.  |
| Number | <a href="#">#min(value1, value2, [valueN])</a> | Returns the lesser of two (or more) numbers.   |
| Number | <a href="#">#pow(base, exponent)</a>           | Returns base to the exponent power, that is, base exponent.  |
| void   | <a href="#">#random()</a>                      | Returns a pseudo-random number between 0 and 1.  |
| void   | <a href="#">#round(x)</a>                      | Returns the value of a number rounded to the nearest integer.  |
| void   | <a href="#">#sin(x)</a>                        | Returns the sine of a number.  |
| void   | <a href="#">#sqrt(x)</a>                       | Returns the square root of a number.   |
| void   | <a href="#">#tan(x)</a>                        | Returns the tangent of a number.   |

## Property Details

E

Euler's constant and the base of natural logarithms. Approximately 2.718.

**Returns**

Number

**Sample**

```
Math.E
```

LN10

Natural logarithm of 10. Approximately 2.302.

**Returns**

Number

**Sample**

```
Math.LN10
```

LN2

Natural logarithm of 2. Approximately 0.693.

**Returns**

Number

**Sample**

```
Math.LN2
```

LOG10E

Base 10 logarithm of E. Approximately 0.434.

**Returns**

Number

**Sample**

```
Math.LOG10E
```

LOG2E

Base 2 logarithm of E. Approximately 1.442.

**Returns**

Number

**Sample**

```
Math.LOG2E
```

PI

Ratio of the circumference of a circle to its diameter. Approximately 3.14159.

**Returns**

Number

**Sample**

```
Math.PI
```

SQRT1\_2

Square root of 1/2. Equivalently, 1 over the square root of 2, approximately 0.707.

**Returns**

Number

**Sample**

```
Math.SQRT1_2
```

## SQRT2

Square root of 2. Approximately 1.414.

### Returns

Number

### Sample

```
Math.SQRT2
```

## Method Details

abs

Number **abs**(x)

Returns the absolute value of a number.

### Parameters

{Number} x

### Returns

Number

### Sample

```
Math.abs(number)
```

acos

Number **acos**(x)

Returns the arccosine (in radians) of a number.

### Parameters

{Number} x

### Returns

Number

### Sample

```
Math.acos(number)
```

asin

Number **asin**(x)

Returns the arcsine (in radians) of a number.

### Parameters

{Number} x

### Returns

Number

### Sample

```
Math.asin(number)
```

atan

Number **atan**(x)

Returns the arctangent (in radians) of a number.

### Parameters

{Number} x

### Returns

Number

### Sample

```
Math.atan(number)
```

atan2

Number **atan2**(y, x)

Returns the arctangent of the quotient of its arguments.

**Parameters**

`{Number}` y

`{Number}` x

**Returns**

`Number`

**Sample**

```
Math.atan2(number, number)
```

**ceil**

`Number` **ceil**(x)

Returns the smallest integer greater than or equal to a number.

**Parameters**

`{Number}` x

**Returns**

`Number`

**Sample**

```
Math.ceil(number)
```

**cos**

`Number` **cos**(x)

Returns the cosine of a number.

**Parameters**

`{Number}` x

**Returns**

`Number`

**Sample**

```
Math.cos(number)
```

**exp**

`Number` **exp**(x)

Returns  $e^{\text{number}}$ , where number is the argument, and E is Euler's constant, the base of the natural logarithms.

**Parameters**

`{Number}` x

**Returns**

`Number`

**Sample**

```
Math.exp(number)
```

**floor**

`Number` **floor**(x)

Returns the largest integer less than or equal to a number.

**Parameters**

`{Number}` x

**Returns**

`Number`

**Sample**

```
Math.floor(number)
```

**log**

`Number` **log**(x)

Returns the natural logarithm (base E) of a number.

**Parameters**

`{Number}` x

**Returns**

`Number`

### Sample

```
Math.log(number)
```

max

**Number** **max**(value1, value2, [valueN])

Returns the greater of two (or more) numbers.

#### Parameters

{**Number**} value1

{**Number**} value2

{**Number**} [valueN]

#### Returns

**Number**

### Sample

```
Math.max(number, number[ ], number[ ])
```

min

**Number** **min**(value1, value2, [valueN])

Returns the lesser of two (or more) numbers.

#### Parameters

{**Number**} value1

{**Number**} value2

{**Number**} [valueN]

#### Returns

**Number**

### Sample

```
Math.min(number, number[ ], number[ ])
```

pow

**Number** **pow**(base, exponent)

Returns base to the exponent power, that is, base exponent.

#### Parameters

{**Number**} base

{**Number**} exponent

#### Returns

**Number**

### Sample

```
Math.pow(number, number)
```

random

void **random**()

Returns a pseudo-random number between 0 and 1.

#### Returns

void

### Sample

```
Math.random( )
```

round

void **round**(x)

Returns the value of a number rounded to the nearest integer.

#### Parameters

{**Number**} x

#### Returns

void

### Sample

```
Math.round(number)
```

sin

void **sin**(x)

Returns the sine of a number.

**Parameters**

{[Number](#)} x

**Returns**

void

### Sample

```
Math.sin(number)
```

sqrt

void **sqrt**(x)

Returns the square root of a number.

**Parameters**

{[Number](#)} x

**Returns**

void

### Sample

```
Math.sqrt(number)
```

tan

void **tan**(x)

Returns the tangent of a number.

**Parameters**

{[Number](#)} x

**Returns**

void

### Sample

```
Math.tan(number)
```