

## JavaScript – Math library

### 1. Math

- The JavaScript Math object allows you to perform mathematical tasks on numbers.

Properties/ Functions	Description	Example
<code>Math.PI</code>	Returns PI	3.141592653589793
<code>Math.LN10</code>	Returns the natural logarithm of 10	2.302585092994046
<code>Math.LOG10E</code>	Returns base 10 logarithm of E	0.4342944819032518
<code>Math.log(x)</code>	Returns the natural logarithm of x.	<code>Math.log(3)</code> → 1.0986122886681096
<code>Math.log2(x)</code>	Returns the base 2 logarithm of x.	<code>Math.log2(8)</code> → 3
<code>Math.log10(x)</code>	Returns the base 10 logarithm of x	<code>Math.log10(1000)</code> → 3
<code>Math.round(x)</code>	Returns x rounded to its nearest integer	<code>Math.round(10.4)</code> → 10
<code>Math.ceil(x)</code>	Returns x rounded up to its nearest integer	<code>Math.ceil(10.4)</code> → 11
<code>Math.floor(x)</code>	Returns x rounded down to its nearest integer	<code>Math.floor(10.4)</code> → 10
<code>Math.trunc(x)</code>	Returns the integer part of x	<code>Math.trunc(10.4)</code> → 10
<code>Math.pow(x, y)</code>	Returns the value of x to the power of y	<code>Math.pow(2,4)</code> → 16
<code>Math.sqrt(x)</code>	Returns the square root of x	<code>Math.sqrt(25)</code> → 5
<code>Math.random()</code>	Returns a random number between 0 (inclusive), and 1 (exclusive)	<code>Math.random()</code> → 0.9819412774835417

### 2. Math.random()

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

Code	Description
<code>Math.random()</code>	Returns a random number between 0 (inclusive), and 1 (exclusive)
<code>Math.floor(Math.random() * 10)</code>	Returns a random integer from 0 to 9
<code>Math.floor(Math.random() * 100);</code>	Returns a random integer from 0 to 99
<code>Math.floor(Math.random() * 10) + 1;</code>	Returns a random integer from 1 to 10