

JavaScript Math

The **JavaScript math** object provides several constants and methods to perform mathematical operation. Unlike date object, it doesn't have constructors.

JavaScript Math Methods

Let's see the list of JavaScript Math methods with description.

Methods	Description
<code>abs()</code>	It returns the absolute value of the given number.
<code>acos()</code>	It returns the arccosine of the given number in radians.
<code>asin()</code>	It returns the arcsine of the given number in radians.
<code>atan()</code>	It returns the arc-tangent of the given number in radians.
<code>cbrt()</code>	It returns the cube root of the given number.
<code>ceil()</code>	It returns a smallest integer value, greater than or equal to the given number.
<code>cos()</code>	It returns the cosine of the given number.
<code>cosh()</code>	It returns the hyperbolic cosine of the given number.
<code>exp()</code>	It returns the exponential form of the given number.
<code>floor()</code>	It returns largest integer value, lower than or equal to the given number.
<code>hypot()</code>	It returns square root of sum of the squares of given numbers.
<code>log()</code>	It returns natural logarithm of a number.
<code>max()</code>	It returns maximum value of the given numbers.
<code>min()</code>	It returns minimum value of the given numbers.
<code>pow()</code>	It returns value of base to the power of exponent.
<code>random()</code>	It returns random number between 0 (inclusive) and 1 (exclusive).
<code>round()</code>	It returns closest integer value of the given number.
<code>sign()</code>	It returns the sign of the given number

<code>sin()</code>	It returns the sine of the given number.
<code>sinh()</code>	It returns the hyperbolic sine of the given number.
<code>sqrt()</code>	It returns the square root of the given number
<code>tan()</code>	It returns the tangent of the given number.
<code>tanh()</code>	It returns the hyperbolic tangent of the given number.
<code>trunc()</code>	It returns an integer part of the given number.

Math.sqrt(n)

The JavaScript `math.sqrt(n)` method returns the square root of the given number.

Square Root of 17 is:

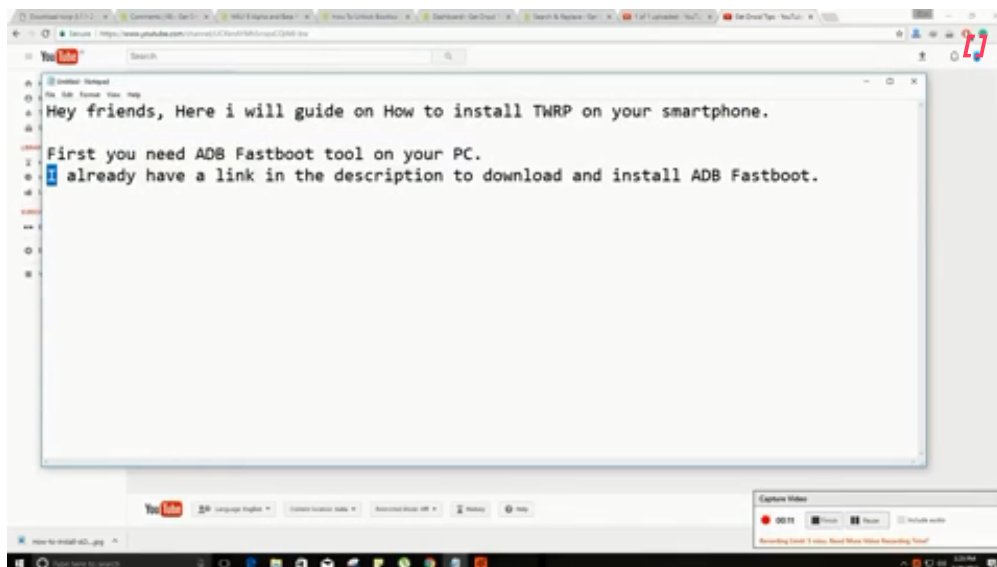
```
<script>
```

```
document.getElementById('p1').innerHTML=Math.sqrt(17);
```

```
</script>
```

Test it Now

Output:



Square Root of 17 is: 4.123105625617661



Math.random()

The JavaScript math.random() method returns the random number between 0 to 1.

Random Number is:

```
<script>
```

```
document.getElementById('p2').innerHTML=Math.random();
```

```
</script>
```

Test it Now

Output:

Random Number is: 0.22830091181556145

Math.pow(m,n)

The JavaScript math.pow(m,n) method returns the m to the power of n that is m^n .

3 to the power of 4 is:

```
<script>
```

```
document.getElementById('p3').innerHTML=Math.pow(3,4);
```

```
</script>
```

Test it Now

Output:

3 to the power of 4 is: 81

Math.floor(n)

The JavaScript `math.floor(n)` method returns the lowest integer for the given number. For example 3 for 3.7, 5 for 5.9 etc.

Floor of 4.6 is: ``

`<script>`

`document.getElementById('p4').innerHTML=Math.floor(4.6);`

`</script>`

Test it Now

Output:

Floor of 4.6 is: 4

Math.ceil(n)

The JavaScript `math.ceil(n)` method returns the largest integer for the given number. For example 4 for 3.7, 6 for 5.9 etc.

Ceil of 4.6 is: ``

`<script>`

`document.getElementById('p5').innerHTML=Math.ceil(4.6);`

`</script>`

Test it Now

Output:

Ceil of 4.6 is: 5

Math.round(n)

The JavaScript `math.round(n)` method returns the rounded integer nearest for the given number. If fractional part is equal or greater than 0.5, it goes to upper value 1 otherwise lower value 0. For example 4 for 3.7, 3 for 3.3, 6 for 5.9 etc.

```
Round of 4.3 is: <span id="p6"></span><br>
Round of 4.7 is: <span id="p7"></span>
<script>
document.getElementById('p6').innerHTML=Math.round(4.3);
document.getElementById('p7').innerHTML=Math.round(4.7);
</script>
```

Test it Now

Output:

```
Round of 4.3 is: 4
Round of 4.7 is: 5
```

Math.abs(n)

The JavaScript `math.abs(n)` method returns the absolute value for the given number. For example 4 for -4, 6.6 for -6.6 etc.

```
Absolute value of -4 is: <span id="p8"></span>
<script>
document.getElementById('p8').innerHTML=Math.abs(-4);
</script>
```

Test it Now

Output:

```
Absolute value of -4 is: 4
```

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