**Math Object**

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

We always have to use math class i.e. ‘Math’, whenever there will be requirement of using math’s object or properties/Method.

**#1 Method –** Math.PI

Example:

document.write(Math.PI);

Output:-  
3.141592653589793

**#2 Method –** Math.round()

Math.round() Method, returns the value of x rounded to its nearest integer.

Example:

let num = 10.401;  
document.write(Math.round(num));

Output:-  
10

**#3 Method –** Math.pow()

Math.pow(x,y) Method, returns the value of x to the power of y.

Example:

document.write(Math.pow(5,2)); **//5^2**

Output:-  
25

**#4 Method –** Math.sqrt()

Math.sqrt (x) Method, returns the square root of x.

Example:

document.write(Math.sqrt(25) + "<br>");  
document.write(Math.sqrt(81) + "<br>");  
document.write(Math.sqrt(66) + "<br>");

Output:-  
5  
9  
8.12403840463596

**#5 Method –** Math.abs()

Math.abs (x) Method, returns the absolute (positive) value of x.

Example:

document.write(Math.abs(-55) + "<br>");

document.write(Math.abs(-55.5) + "<br>");

document.write(Math.abs(-955) + "<br>");

document.write(Math.abs(-4-6) + "<br>");

Output:-  
55  
55.5  
955  
10

**#6 Method –** Math.ceil()

Math.ceil(x) Method, returns the value of x rounded up to its nearest integer. We can read it as ceiling which is opposite of floor.

Example:

document.write(Math.ceil(4.51) + "<br>");

document.write(Math.round(4.51) + "<br>");

document.write(Math.ceil(99.01) + "<br>");

document.write(Math.round(99.1) + "<br>");

Output:-  
5  
5  
100  
99

**#7 Method –** Math.floor()

Math.floor(x) Method, returns the value of x rounded down to its nearest integer. It is similar to Math.clier() Method.

Example:

document.write(Math.floor(4.51) + "<br>");

document.write(Math.round(4.51) + "<br>");

document.write(Math.floor(99.01) + "<br>");

document.write(Math.round(99.1) + "<br>");

Output:-  
4  
5  
99  
99

**#8 Method –** Math.max()

Math.max() Method, can be used to find the highest value in a list of arguments.

Example:

document.write(Math.max(0, 150, 30, 20, -8, -200) + "<br>");

Output:-  
150

**#9 Method –** Math.min()

Math.min() Method, can be used to find the lowest value in a list of arguments.

Example:

document.write(Math.min(0, 150, 30, 20, -8, -200) + "<br>");

Output:-  
-200

**#10 Method –** Math.random()

Math.random() Method, returns a random number between 0, and 1 by default.

Example:

document.write(Math.floor(Math.random()\*100) + "<br>");

Output:-  
98 **//Any Random value between 1 to 100**

Here, Math.random() Method giving any random value between 0 & 1 like(0.2940963089337776) then to get any random number like (29.38839990706077) between 1 to 100, we have multiplied by 100. Now to get roundest down value like (3) of random number between 1 to 100, we have used Math.random() Method with Math.floor() Method.

**#11 Method –** Math.trunc()

Math.trunc() Method, returns the integer part of a number.

Example:

document.write(Math.trunc(4.6) + "<br>");

document.write(Math.trunc(-99.1) + "<br>");

Output:-  
4  
-99

**\*Difference between Math.trunc(), Math.floor() & Math.ceil()**

If the argument is positive number then Math.trunc() will work as Math.floor(), otherwise (in negative number) Math.trunc() will work as Math.ceil() method.

**8hrs 32min**