

JavaScript

Number Math Methods

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

There are various types of math methods given below:

The syntax for any Math methods is : **Math.method(number)**

1) Math.PI :It returns Pi values

Example :

```
console.log(Math.PI);  
document.write(Math.PI);
```

Output:

```
3.141592653589793  
3.141592653589793
```

2) Math.pow : Used to find square of any number

1) Example :3**2

```
console.log(3**2)
```

Output:

```
9
```

2) Example : Math.pow()

```
let num = 5;
```

```
let square = Math.pow(num, 2);
```

```
console.log(square);
```

Output:

```
25
```

3) Math.sqrt() : Used to take square root of any number

1)Example:

```
var num = 64  
var res=Math.sqrt(num)  
console.log(res)
```

Output:

8

4) Math.round() : rounds a number to the nearest integer.

suppose num is 23.4 then result will be 23

and num is 23.5 then result will be 24

Example :

```
var m = Math.round(27.5);  
document.write(m)  
console.log(m);
```

Output:

28

5) .Math.ceil() : increase by 1 after .1

1) Example:

```
let num = Math.ceil(27.0);  
console.log(num);  
document.write(num);
```

Output:

27

2)Example:

```
let num = Math.ceil(27.1);  
console.log(num);
```

```
document.write(num);
```

Output:

28

3)Example:

```
let num = Math.ceil(27.5);
```

```
console.log(num);
```

```
document.write(num);
```

Output:

28

6) Math.floor() : it will discard the number after .1

1)Example :

```
let num = Math.floor(27.5);
```

```
console.log(num);
```

```
document.write(num);
```

Output:

27

7) Math.min() : will give minimum value

1)Example :

```
document.write(Math.min(10,20,5,3,90));
```

```
console.log(Math.min(10,20,5,3,90));
```

Output:

3

3

2)Example with array

```
var numb = [100,20,3,20,1,60];  
document.write(Math.min(...numb));
```

The spread operator ... is used here to spread the elements of the numb array into individual arguments when calling the Math.min() function.

Output

1

8) Math.max() : will give you maximum value

1)Example :

```
document.write(Math.max(10,20,5,3,90));  
console.log(Math.max(10,20,5,3,90));
```

Output:

90

90

2)Example : with array

```
var numb = [100,20,3,20,1,60];  
document.write(Math.max(...numb));  
console.log(Math.max(...numb));
```

The spread operator ... is used here to spread the elements of the numb array into individual arguments when calling the Math.max() function.

Output

100

100

9) .toFixed () : After point it will print how many value you want

```
var num = 10.390909;  
console.log(num.toFixed(2));  
document.write(num.toFixed(2));
```

Output

10.39

10) Math.random() : returns a random number between 0 (included) and 1 (excluded):

1)Example:

```
let randomValue = Math.random();  
console.log(randomValue);
```

Output:

0.5118552197501497

// every time you referesh browser you get different values

2)Example:with array and .length

```
const fruits = [1,2,3,4,5,6];  
let randomFruit = fruits[Math.floor(Math.random() * fruits.length)];  
document.write(randomFruit);
```

Output:

2

// every time you referesh browser you get different values

11) spread operator(...) spread operator to spread the elements of one array into another array

Example:

```
const arr1 = [1, 2];  
const arr2 = [3, 4];  
const arr3 = [...arr1, ...arr2];  
console.log(arr3);  
document.write(arr3);
```

Output:

1,2,3,4