

# Javascript

Math  
Methods

Math.PI

$$\pi = \frac{22}{7}$$

`<p id="demo"></p>`

`<script>`

`document.getElementById("demo").innerHTML = Math.PI`

Math.round(x)

$x = 4.6, 4.5, 4.4$

Math.ceil(x)

Math.floor(x)

Math.toExponential(x)

Math.sign(x)

Math.pow(8,2)

Math.pow(a,b)

$a^b$

Math.abs(x)

Math.sin(r)

~~$\frac{\pi d}{180} = r$~~

Math.sin( $d \times \text{Math.PI} / 180$ )

$r$ : radian,  $d$ : degree.

Math.cos(r), Math.tan(x)

Math.min(0, 2, -8, ...)

Math.max(0, 2, -8, ...)

Math.random()

Returns a random number between 0 to 1

Math.log(x)

Math.log2(x)

Math.log10(x)

$$\ln x \mid \log_e x$$

Relational operators →

Boolean ( $a > b$ )

True | False

$==$   $>$   $!=$   
 $>$   $<$   $<=$

given,  $x = 10$

$==$  Equal value  
Equal type

$x == 10$  — True

$x == "10"$  — False

Ternary operator

let  $x = (a > b) ? 10 : 20;$

Set operations

✓ `const letters = new Set();`

`letters.add("a");`

`letters.add("b");`

`const letters = new Set  
(["a", "b"]);`

✓ `letters.delete("a");`

✓ `letters.size` — No. of elements in a set

```
var val = ''  
for (item of letters.values())  
  val = val + item + ' ';
```

→ Printing set of elements



# Map

```
const ABC = new Map();
```

```
ABC.set("apples", 700);  
ABC.set("bananas", 200);  
ABC.set("oranges", 100);
```

set()

Assign & Modify values.

```
ABC.get("apples");
```

Printing a value

```
ABC.size
```

```
ABC.delete("apples");
```

```
var val = ' ';  
for(item of ABC.values())  
  val = val + item + ' ';
```

Printing all values.

ABC.values() ————— ABC.entries() ✓  
Printing key & value together

ABC.has("apples") ——— True if there exists value for the key (here "apples")  
False otherwise