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## JavaScript Math Object

Math object allow to perform mathematical task

a) PI

`console.log (Math.PI);`  $\Rightarrow 3.141592653589793$

b) `Math.round()`

return value  $x$  rounded to nearest integer.

`let num 10.2565;`

`console.log (Math.round(num));`  $\Rightarrow 10$

`10.8`  $\Rightarrow 11$

c) `Math.pow()`

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

`console.log (Math.pow (2, 3));`  $\Rightarrow 2^3 \Rightarrow 8$

`console.log (2 * 3);`  $\Rightarrow 2^3 \Rightarrow 8$

d) `Math.sqrt()`

`Math.sqrt(x)` returns the square root of  $x$ ;

`console.log (Math.sqrt (25));`  $\Rightarrow 5$

`console.log (Math.sqrt (81));`  $\Rightarrow 9$

`console.log (Math.sqrt (66));`  $\Rightarrow 8.12345$

e) Math.abs()

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

console.log(Math.abs(-55));  $\Rightarrow 55$

console.log(Math.abs(-55.5));  $\Rightarrow 55.5$

console.log(Math.abs(-955));  $\Rightarrow 955$

★ console.log(Math.abs(4-6));  $\Rightarrow 2$

↓

f) Math.ceil()

return (x) value rounded up nearest integer.

console.log(Math.ceil(4.51));  $\Rightarrow 5$

console.log(Math.round(4.51));  $\Rightarrow 5$

console.log(Math.ceil(99.1));  $\Rightarrow 100$

console.log(Math.round(99.1));  $\Rightarrow 99$

g) Math.floor()

return (x) round down nearest integer.

console.log(Math.floor(4.7));  $\Rightarrow 4$

console.log(Math.floor(99.1));  $\Rightarrow 99$



h) Math.min()

It is used to find minimum value argument.

```
console.log(Math.min(0, 150, 30, 20, -8, -200));
```

⇒ -200

i) Math.max()

It used to find maximum value argument.

```
console.log(Math.max(0, 150, 30, 20, -8, -200));
```

150

j) Math.random()

Return a random numbers  
0 (inclusive), and 1 (exclusive)

All change

```
console.log(Math.random());
```

⇒ 0.424176...

```
console.log(Math.random() * 10);
```

use floor

```
console.log(Math.floor(Math.random() * 10));
```

k) Math.trunc()

output ⇒ 0 to 9

Method only return only integer

```
console.log(Math.trunc(4.6));
```

⇒ 4

```
console.log(Math.trunc(-99.1));
```

⇒ -99

practise Time

⇒ If the argument is a positive number,  
 $\text{Math.trunc}()$  is equivalent to  $\text{Math.floor}()$ ,  
otherwise  $\text{Math.trunc}()$  is equivalent to  
 $\text{Math.ceil}()$ .

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