= is used to assign values.

+ is used to add values.

The assignment operator = is used to assign values to JavaScript variables.
The arithmetic operator + is used to add values together.

```
y=5;
z=2;
x=y+z;
```

The value of x, after the execution of the statements above, is 7.

### JavaScript Arithmetic Operators

Arithmetic operators are used to perform arithmetic between variables and/or values.

Given that **y=5**, the table below explains the arithmetic operators:

<table>
<thead>
<tr>
<th>Operator</th>
<th>Description</th>
<th>Example</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Addition</td>
<td>x=y+2</td>
<td>x=7 y=5</td>
</tr>
<tr>
<td>-</td>
<td>Subtraction</td>
<td>x=y-2</td>
<td>x=3 y=5</td>
</tr>
<tr>
<td>*</td>
<td>Multiplication</td>
<td>x=y*2</td>
<td>x=10 y=5</td>
</tr>
<tr>
<td>/</td>
<td>Division</td>
<td>x=y/2</td>
<td>x=2.5 y=5</td>
</tr>
<tr>
<td>%</td>
<td>Modulus (division remainder)</td>
<td>x=y%2</td>
<td>x=1 y=5</td>
</tr>
<tr>
<td>++</td>
<td>Increment</td>
<td>x=++y</td>
<td>x=6 y=6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>x=y++</td>
<td>x=5 y=6</td>
</tr>
<tr>
<td>--</td>
<td>Decrement</td>
<td>x=-y</td>
<td>x=4 y=4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>x=y--</td>
<td>x=5 y=4</td>
</tr>
</tbody>
</table>

### JavaScript Assignment Operators

Assignment operators are used to assign values to JavaScript variables.

Given that **x=10** and **y=5**, the table below explains the assignment operators:

<table>
<thead>
<tr>
<th>Operator</th>
<th>Example</th>
<th>Same As</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>=</td>
<td>x=y</td>
<td>x=x</td>
<td>x=5</td>
</tr>
<tr>
<td>+=</td>
<td>x+=y</td>
<td>x=x+y</td>
<td>x=15</td>
</tr>
<tr>
<td>-=</td>
<td>x-=y</td>
<td>x=x-y</td>
<td>x=5</td>
</tr>
<tr>
<td>*=</td>
<td>x*=y</td>
<td>x=x*y</td>
<td>x=50</td>
</tr>
<tr>
<td>/=</td>
<td>x/=y</td>
<td>x=x/y</td>
<td>x=2</td>
</tr>
<tr>
<td>%=</td>
<td>x%=y</td>
<td>x=x%y</td>
<td>x=0</td>
</tr>
</tbody>
</table>

The + Operator Used on Strings
The + operator can also be used to add string variables or text values together.

To add two or more string variables together, use the + operator:

```javascript
txt1="What a very";
txt2="nice day";
txt3=txt1+txt2;
```

After the execution of the statements above, the variable txt3 contains "What a very nice day".

To add a space between the two strings, insert a space into one of the strings:

```javascript
txt1="What a very ";
txt2="nice day";
txt3=txt1+txt2;
```

or insert a space into the expression:

```javascript
txt1="What a very";
txt2="nice day";
txt3=txt1+" "+txt2;
```

After the execution of the statements above, the variable txt3 contains:

"What a very nice day"

**Adding Strings and Numbers**

The rule is: **If you add a number and a string, the result will be a string!**

**Example**

```javascript
x=5+5;
document.write(x);

x="5"+"5";
document.write(x);

x=5+"5";
document.write(x);

x="5"+5;
document.write(x);
```

**Try it yourself »**
JavaScript Math Object

The Math object allows you to perform mathematical tasks.

Try it Yourself - Examples

```javascript
round()
How to use round().

random()
How to use random() to return a random number between 0 and 1.

max()
How to use max() to return the number with the highest value of two specified numbers.

min()
How to use min() to return the number with the lowest value of two specified numbers.
```

Complete Math Object Reference

For a complete reference of all the properties and methods that can be used with the Math object, go to our complete Math object reference.

The reference contains a brief description and examples of use for each property and method!

Math Object

The Math object allows you to perform mathematical tasks.

The Math object includes several mathematical constants and methods.

**Syntax for using properties/methods of Math:**

```javascript
var x=Math.PI;
var y=Math.sqrt(16);
```

**Note:** Math is not a constructor. All properties and methods of Math can be called by using Math as an object without creating it.

Mathematical Constants

JavaScript provides eight mathematical constants that can be accessed from the Math object. These are: E, PI, square root of 2, square root of 1/2, natural log of 2, natural log of 10, base-2 log of E, and base-10 log of E.

You may reference these constants from your JavaScript like this:

```javascript
Math.E
Math.PI
Math.SQRT2
Math.SQRT1_2
Math.LN2
Math.LN10
Math.LOG2E
Math.LOG10E
```
Mathematical Methods

In addition to the mathematical constants that can be accessed from the Math object there are also several methods available.

The following example uses the round() method of the Math object to round a number to the nearest integer:

```javascript
document.write(Math.round(4.7));
```

The code above will result in the following output:

```javascript
5
```

The following example uses the random() method of the Math object to return a random number between 0 and 1:

```javascript
document.write(Math.random());
```

The code above can result in the following output:

```javascript
0.722241822630167
```

The following example uses the floor() and random() methods of the Math object to return a random number between 0 and 10:

```javascript
document.write(Math.floor(Math.random()*11));
```

The code above can result in the following output:

```javascript
9
```
Math Object

The Math object allows you to perform mathematical tasks.

Math is not a constructor. All properties/methods of Math can be called by using Math as an object, without creating it.

Syntax

```javascript
var x = Math.PI; // Returns PI
var y = Math.sqrt(16); // Returns the square root of 16
```

For a tutorial about the Math object, read our [JavaScript Math Object tutorial](#).

### Math Object Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>Returns Euler's number (approx. 2.718)</td>
</tr>
<tr>
<td>LN2</td>
<td>Returns the natural logarithm of 2 (approx. 0.693)</td>
</tr>
<tr>
<td>LN10</td>
<td>Returns the natural logarithm of 10 (approx. 2.302)</td>
</tr>
<tr>
<td>LOG2E</td>
<td>Returns the base-2 logarithm of E (approx. 1.442)</td>
</tr>
<tr>
<td>LOG10E</td>
<td>Returns the base-10 logarithm of E (approx. 0.434)</td>
</tr>
<tr>
<td>PI</td>
<td>Returns PI (approx. 3.14159)</td>
</tr>
<tr>
<td>SQRT1_2</td>
<td>Returns the square root of 1/2 (approx. 0.707)</td>
</tr>
<tr>
<td>SQRT2</td>
<td>Returns the square root of 2 (approx. 1.414)</td>
</tr>
</tbody>
</table>

### Math Object Methods

<table>
<thead>
<tr>
<th>Method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>abs(x)</td>
<td>Returns the absolute value of x</td>
</tr>
<tr>
<td>acos(x)</td>
<td>Returns the arccosine of x, in radians</td>
</tr>
<tr>
<td>asin(x)</td>
<td>Returns the arcsine of x, in radians</td>
</tr>
<tr>
<td>atan(x)</td>
<td>Returns the arctangent of x as a numeric value between -PI/2 and PI/2 radians</td>
</tr>
<tr>
<td>atan2(y,x)</td>
<td>Returns the arctangent of the quotient of its arguments</td>
</tr>
<tr>
<td>ceil(x)</td>
<td>Returns x, rounded upwards to the nearest integer</td>
</tr>
<tr>
<td>cos(x)</td>
<td>Returns the cosine of x (x is in radians)</td>
</tr>
<tr>
<td>exp(x)</td>
<td>Returns the value of ( E^x )</td>
</tr>
<tr>
<td>floor(x)</td>
<td>Returns x, rounded downwards to the nearest integer</td>
</tr>
<tr>
<td>log(x)</td>
<td>Returns the natural logarithm (base E) of x</td>
</tr>
<tr>
<td>max(x,y,z,...,n)</td>
<td>Returns the number with the highest value</td>
</tr>
<tr>
<td>min(x,y,z,...,n)</td>
<td>Returns the number with the lowest value</td>
</tr>
<tr>
<td>pow(x,y)</td>
<td>Returns the value of x to the power of y</td>
</tr>
<tr>
<td>random()</td>
<td>Returns a random number between 0 and 1</td>
</tr>
<tr>
<td>round(x)</td>
<td>Rounds x to the nearest integer</td>
</tr>
<tr>
<td>sin(x)</td>
<td>Returns the sine of x (x is in radians)</td>
</tr>
</tbody>
</table>