

# Java Script

## EXEMPLOS

## SYNTAX

### JavaScript Literals

#### Números

```
<!DOCTYPE html>
<html>
<body>
<h2>JavaScript Numbers</h2>
<p>Number can be written with or without decimals.</p>
<p id="demo"></p>
<script>
document.getElementById("demo").innerHTML = 10.50;
</script>
</body>
</html>
```

#### String

```
<!DOCTYPE html>
<html>
<body>
<h2>JavaScript Strings</h2>
<p>Strings can be written with double or single quotes.</p>
<p id="demo"></p>
<script>
document.getElementById("demo").innerHTML = 'Maria Francisca';
</script>
</body>
</html>
```

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```
<!DOCTYPE html>
<html>
<body>
<h1>JavaScript Strings</h1>
<p>Strings are written inside quotes. You can use single or double quotes:</p>
<p id="demo"></p>
<script>
let carName1 = "Volvo XC60"; // Double quotes
let carName2 = 'Volvo XC60'; // Single quotes
document.getElementById("demo").innerHTML =
carName1 + " " + carName2;
</script>
</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>
<h1>JavaScript Strings</h1>
<p>You can use quotes inside a string, as long as they don't match the quotes surrounding the
string.</p>
<p id="demo"></p>
<script>
let answer1 = "It's alright";
let answer2 = "He is called 'Johnny'";
let answer3 = 'He is called "Johnny"';
document.getElementById("demo").innerHTML =
answer1 + "<br>" + answer2 + "<br>" + answer3;
</script>
</body>
</html>
```

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## EXEMPLOS

```
<!DOCTYPE html>
<html>
<body>
<h1>JavaScript Strings</h1>
<h2>The length Property</h2>
<p>The length of the string is:</p>
<p id="demo"></p>
<script>
let text = "ABCDEFGHIJKLMNOPQRSTUVWXYZ";
document.getElementById("demo").innerHTML = text.length;
</script>
</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>
<h2>JavaScript Strings</h2>
<p>The escape sequence \" inserts a double quote in a string.</p>
<p id="demo"></p>
<script>
let text = "We are the so-called \"Vikings\" from the north.";
document.getElementById("demo").innerHTML = text;
</script>
</body>
</html>
```

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## EXEMPLOS

```
<!DOCTYPE html>
<html>
<body>
<h2>JavaScript Strings</h2>
<p>The escape sequence \\ inserts a backslash in a string.</p>
<p id="demo"></p>
<script>
let text = "The character \\ is called backslash.";
document.getElementById("demo").innerHTML = text;
</script>
</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>
<h2>JavaScript Statements</h2>
<p>
The best place to break a code line is after an operator or a comma.
</p>
<p id="demo"></p>
<script>
document.getElementById("demo").innerHTML =
"Hello Dolly!";
</script>
</body>
</html>
```

# Java Script

## EXEMPLOS

```
<!DOCTYPE html>
<html>
<body>
<h2>JavaScript Strings</h2>
<p id="demo"></p>
<script>
// x is a string
let x = "John";
// y is an object
let y = new String("John");
document.getElementById("demo").innerHTML =
typeof x + "<br>" + typeof y;
</script>
</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>
<h2>Never Create Strings as Objects</h2>
<p>Strings and objects cannot be safely compared.</p>
<p id="demo"></p>
<script>
let x = "John";    // x is a string
let y = new String("John"); // y is an object
document.getElementById("demo").innerHTML = (x==y);
</script>
</body>
</html>
```

# Java Script

## EXEMPLOS

```
<!DOCTYPE html>
<html>
<body>
<h2>Never Create Strings as Objects</h2>
<p>JavaScript objects cannot be compared.</p>
<p id="demo"></p>
<script>
let x = new String("John"); // x is an object
let y = new String("John"); // y is an object
document.getElementById("demo").innerHTML = (x===y);
</script>
</body>
</html>
```

## Variáveis

```
<!DOCTYPE html>
<html>
<body>
<h2>JavaScript Variables</h2>
<p>In this example, x is defined as a variable.
Then, x is assigned the value of 6:</p>
<p id="demo"></p>
<script>
let x;
x = 6;
document.getElementById("demo").innerHTML = x;
</script>
</body>
</html>
```

# Java Script

## EXEMPLOS

```
<!DOCTYPE html>
<html>
<body>
<h1>JavaScript Variables</h1>
<p>In this example, x, y, and z are variables.</p>
<p id="demo"></p>
<script>
var x = 5;
var y = 6;
var z = x + y;
document.getElementById("demo").innerHTML =
"The value of z is: " + z;
</script>
</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>
<h1>JavaScript Variables</h1>
<p>In this example, x, y, and z are undeclared variables.</p>
<p id="demo"></p>
<script>
x = 5;
y = 6;
z = x + y;
document.getElementById("demo").innerHTML =
"The value of z is: " + z;
</script>
</body>
</html>
```

# Java Script

## EXEMPLOS

```
<!DOCTYPE html>
<html>
<body>
<h1>JavaScript Variables</h1>
<p>In this example, price1, price2, and total are variables.</p>
<p id="demo"></p>
<script>
const price1 = 5;
const price2 = 6;
let total = price1 + price2;
document.getElementById("demo").innerHTML =
"The total is: " + total;
</script>
</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>
<h1>JavaScript Variables</h1>
<p>Strings are written with quotes.</p>
<p>Numbers are written without quotes.</p>
<p id="demo"></p>
<script>
const pi = 3.14;
let person = "John Doe";
let answer = 'Yes I am!';
document.getElementById("demo").innerHTML =
pi + "<br>" + person + "<br>" + answer;
</script>
</body>
</html>
```



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## EXEMPLOS

```
<!DOCTYPE html>
<html>
<body>
<h1>JavaScript Variables</h1>
<p>Create a variable, assign a value to it, and display it:</p>
<p id="demo"></p>
<script>
let carName = "Volvo";
document.getElementById("demo").innerHTML = carName;
</script>
</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>
<h1>JavaScript Variables</h1>
<p>You can declare many variables in one statement.</p>
<p id="demo"></p>
<script>
let person = "John Doe", carName = "Volvo", price = 200;
document.getElementById("demo").innerHTML = carName;
</script>
</body>
</html>
```

# Java Script

## EXEMPLOS

```
<!DOCTYPE html>
<html>
<body>
<h1>JavaScript Variables</h1>
<p>You can declare many variables in one statement.</p>
<p id="demo"></p>
<script>
let person = "John Doe",
carName = "Volvo",
price = 200;
document.getElementById("demo").innerHTML = carName;
</script>
</body>
</html>
```

## Operadores

```
<!DOCTYPE html>
<html>
<body>
<h2>JavaScript Operators</h2>
<p>JavaScript uses arithmetic operators to compute values (just like algebra).</p>
<p id="demo"></p>
<script>
document.getElementById("demo").innerHTML = (5 + 6) * 10;
</script>
</body>
</html>
```

# Java Script

## EXEMPLOS

```
<!DOCTYPE html>
<html>
<body>
<h2>Assigning JavaScript Values</h2>
<p>In JavaScript the = operator is used to assign values to variables.</p>
<p id="demo"></p>
<script>
let x, y;
x = 5;
y = 6;
document.getElementById("demo").innerHTML = x + y;
</script>
</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>
<h1>JavaScript Operators</h1>
<h2>The Assignment (=) Operator</h2>
<p id="demo"></p>
<script>
// Assign the value 5 to x
let x = 5;
// Assign the value 2 to y
let y = 2;
// Assign the value x + y to z
let z = x + y;
// Display z
document.getElementById("demo").innerHTML = "The sum of x + y is: " + z;
</script>
</body>
</html>
```

# Java Script

## EXEMPLOS

```
<!DOCTYPE html>

<html>

<body>

<h1>JavaScript Arithmetic</h1>

<h2>The + Operator</h2>

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

<script>

let x = 5;

let y = 2;

let z = x + y;

document.getElementById("demo").innerHTML = z;

</script>

</body>

</html>

<!DOCTYPE html>

<html>

<body>

<h1>JavaScript Arithmetic</h1>

<h2>The * Operator</h2>

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

<script>

let x = 5;

let y = 2;

let z = x * y;

document.getElementById("demo").innerHTML = z;

</script>

</body>

</html>
```

# Java Script

## EXEMPLOS

```
<!DOCTYPE html>
<html>
<body>
<h1>JavaScript Arithmetic</h1>
<h2>Arithmetic Operations</h2>
<p>A typical arithmetic operation takes two numbers (or expressions) and produces a new
number.</p>
<p id="demo"></p>
<script>
let a = 3;
let x = (100 + 50) * a;
document.getElementById("demo").innerHTML = x;
</script>
</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>
<h1>JavaScript Arithmetic</h1>
<h2>The += Operator</h2>
<p id="demo"></p>
<script>
var x = 10;
x += 5;
document.getElementById("demo").innerHTML = x;
</script>
</body>
</html>
```

# Java Script

## EXEMPLOS

```
<!DOCTYPE html>

<html>

<body>

<h1>JavaScript Operators</h1>

<h2>The + Operator</h2>

<p>The + operator concatenates (adds) strings.</p>

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

<script>

let text1 = "John";

let text2 = "Doe";

let text3 = text1 + " " + text2;

document.getElementById("demo").innerHTML = text3;

</script>

</body>

</html>
```

```
<!DOCTYPE html>

<html>

<body>

<h1>JavaScript Operators</h1>

<p>The assignment operator += can concatenate strings.</p>

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

<script>

let text1 = "What a very ";

text1 += "nice day";

document.getElementById("demo").innerHTML = text1;

</script>

</body>

</html>
```

# Java Script

## EXEMPLOS

```
<!DOCTYPE html>
<html>
<body>
<h1>JavaScript Operators</h1>
<p>Adding a number and a string, returns a string.</p>
<p id="demo"></p>
<script>
let x = 5 + 5;
let y = "5" + 5;
let z = "Hello" + 5;
document.getElementById("demo").innerHTML =
x + "<br>" + y + "<br>" + z;
</script>
</body>
</html>
```

## Expressões

```
<!DOCTYPE html>
<html>
<body>
<h2>JavaScript Expressions</h2>
<p>Expressions compute to values.</p>
<p id="demo"></p>
<script>
document.getElementById("demo").innerHTML = 5 * 10;
</script>
</body>
</html>
```

# Java Script

## EXEMPLOS

```
<!DOCTYPE html>
<html>
<body>
<h2>JavaScript Expressions</h2>
<p>Expressions compute to values.</p>
<p id="demo"></p>
<script>
var x;
x = 5;
document.getElementById("demo").innerHTML = x * 10;
</script>
</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>
<h2>JavaScript Expressions</h2>
<p>Expressions compute to values.</p>
<p id="demo"></p>
<script>
document.getElementById("demo").innerHTML = "Maria" + " " + "Francisca";
</script>
</body>
</html>
```



# Java Script

## EXEMPLOS

```
<!DOCTYPE html>
<html>
<body>
<h2>The <b>let</b> Keyword Creates Variables</h2>
<p id="demo"></p>
<script>
let x, y;
x = 5 + 6;
y = x * 10;
document.getElementById("demo").innerHTML = y;
</script>
</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>
<h2>The var Keyword Creates Variables</h2>
<p id="demo"></p>
<script>
var x, y;
x = 5 + 6;
y = x * 10;
document.getElementById("demo").innerHTML = y;
</script>
</body>
</html>
```

# Java Script

## EXEMPLOS

### Maiúsculas e Minúsculas

```
<!DOCTYPE html>
<html>
<body>
<h2>JavaScript is Case Sensitive</h2>
<p>Try to change lastName to lastname.</p>
<p id="demo"></p>
<script>
let lastname, lastName;
lastName = "Doe";
lastname = "Peterson";
document.getElementById("demo").innerHTML = lastName;
</script>
</body>
</html>
```

### Funções

```
<!DOCTYPE html>
<html>
<body>
<h2>JavaScript Functions</h2>
<p>This example calls a function which performs a calculation, and returns the result:</p>
<p id="demo"></p>
<script>
function myFunction(p1, p2) {
  return p1 * p2;
}
document.getElementById("demo").innerHTML = myFunction(4, 3);
</script>
</body>
</html>
```

# Java Script

## EXEMPLOS

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<h2>JavaScript Functions</h2>
```

```
<p>This example calls a function which performs a calculation and returns the result:</p>
```

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

```
<script>
```

```
var x = myFunction(4, 3);
```

```
document.getElementById("demo").innerHTML = x;
```

```
function myFunction(a, b) {
```

```
    return a * b;
```

```
}
```

```
</script>
```

```
</body>
```

```
</html>
```

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<h2>JavaScript Functions</h2>
```

```
<p>This example calls a function to convert from Fahrenheit to Celsius:</p>
```

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

```
<script>
```

```
function toCelsius(f) {
```

```
    return (5/9) * (f-32);
```

```
}
```

```
document.getElementById("demo").innerHTML = toCelsius(77);
```

```
</script>
```

```
</body>
```

```
</html>
```

# Java Script

## EXEMPLOS

```
<!DOCTYPE html>
<html>
<body>
<h2>JavaScript Functions</h2>
<p>Accessing a function without () will return the function definition instead of the function
result:</p>
<p id="demo"></p>
<script>
function toCelsius(f) {
    return (5/9) * (f-32);
}
document.getElementById("demo").innerHTML = toCelsius;
</script>
</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>
<h2>JavaScript Functions</h2>
<p id="demo"></p>
<script>
document.getElementById("demo").innerHTML =
"The temperature is " + toCelsius(77) + " Celsius";
function toCelsius(fahrenheit) {
    return (5/9) * (fahrenheit-32);
}
</script>
</body>
</html>
```

# Java Script

## EXEMPLOS

```
<!DOCTYPE html>
<html>
<body>
<h2>JavaScript Functions</h2>
<p>Outside myFunction() carName is undefined.</p>
<p id="demo1"></p>
<p id="demo2"></p>
<script>
myFunction();
function myFunction() {
  let carName = "Volvo";
  document.getElementById("demo1").innerHTML =
  typeof carName + " " + carName;
}
document.getElementById("demo2").innerHTML =
typeof carName;
</script>
</body>
</html>
```

## Objetos

```
<!DOCTYPE html>
<html>
<body>
<h2>JavaScript Variables</h2>
<p id="demo"></p>
<script>
// Create and display a variable:
let car = "Fiat";
document.getElementById("demo").innerHTML = car;
</script>
</body>
</html>
```

# Java Script

## EXEMPLOS

```
<!DOCTYPE html>
<html>
<body>
<h2>JavaScript Objects</h2>
<p id="demo"></p>
<script>
// Create an object:
const person = {firstName:"John", lastName:"Doe", age:50, eyeColor:"blue"};
// Display some data from the object:
document.getElementById("demo").innerHTML =
person.firstName + " is " + person.age + " years old.";
</script>
</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>
<h2>JavaScript Objects</h2>
.<p id="demo"></p>
<script>
// Create an object:
const person = {
  firstName: "John",
  lastName: "Doe",
  age: 50,
  eyeColor: "blue"
};
// Display some data from the object:
document.getElementById("demo").innerHTML =
person.firstName + " is " + person.age + " years old.";
</script>
</body>
</html>
```

# Java Script

## EXEMPLOS

## Eventos

```
<!DOCTYPE html>
<html>
<body>
<button onclick="document.getElementById('demo').innerHTML=Date()">The time
is?</button>
<p id="demo"></p>
</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>
<h2>JavaScript HTML Events</h2>
<button onclick="this.innerHTML=Date()">The time is?</button>
</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>
<h2>JavaScript HTML Events</h2>
<p>Click the button to display the date.</p>
<button onclick="displayDate()">The time is?</button>
<script>
function displayDate() {
    document.getElementById("demo").innerHTML = Date();
}
</script>
<p id="demo"></p>
</body>
</html>
```