Type of operator

Here is a list of the return values for the **typeof** Operator.

Type	String Returned by typeof
Number	"number"
String	"string"
Boolean	"boolean"
Object	"object"
Function	"function"
Undefined	"undefined"
Null	"object"

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <title>JavaScript typeof Operator</title>
</head>
<body>
  <script>
  // Numbers
  document.write(typeof 15 + "<br>");
  document.write(typeof 42.7 + "<br>");
  document.write(typeof 2.5e-4 + "<br>");
  document.write(typeof Infinity + "<br>");
  document.write(typeof NaN + "<br>");

  // Strings
  document.write(typeof " + "<br>");
  document.write(typeof 'hello' + "<br>");
  document.write(typeof '12' + "<br>");

  // Booleans
  document.write(typeof true + "<br>");
  document.write(typeof false + "<br>");

  // Undefined
  document.write(typeof undefined + "<br>");
  document.write(typeof undeclaredVariable + "<br>");

  // Null
  document.write(typeof Null + "<br>");

  // Objects
  document.write(typeof {name: "John", age: 18} + "<br>");

  // Arrays
  document.write(typeof [1, 2, 4] + "<br>");
```

```
    // Functions
    document.write(typeof function(){});
  </script>
</body>
</html>
```

++++++++++++

Logical Operators

Try the following code to learn how to implement Logical Operators in JavaScript.

```html
<html>
  <body>
    <script type = "text/javascript">
        var a = true;
        var b = false;
        var linebreak = "<br />";

        document.write("(a && b) => ");
        result = (a && b);
        document.write(result);
        document.write(linebreak);

        document.write("(a || b) => ");
        result = (a || b);
        document.write(result);
        document.write(linebreak);

        document.write("!(a && b) => ");
        result = (!(a && b));
        document.write(result);
        document.write(linebreak);

    </script>

  </body>
</html>
```

=====

Bitwise Operators

Try the following code to implement Bitwise operator in JavaScript.

```html
<html>
  <body>
    <script type = "text/javascript">
        var a = 2; // Bit presentation 10
        var b = 3; // Bit presentation 11
```

```
        var linebreak = "<br />";

        document.write("(a & b) => ");
        result = (a & b);
        document.write(result);
        document.write(linebreak);

        document.write("(a | b) => ");
        result = (a | b);
        document.write(result);
        document.write(linebreak);

        document.write("(a ^ b) => ");
        result = (a ^ b);
        document.write(result);
        document.write(linebreak);

        document.write("(~b) => ");
        result = (~b);
        document.write(result);
        document.write(linebreak);

        document.write("(a << b) => ");
        result = (a << b);
        document.write(result);
        document.write(linebreak);

        document.write("(a >> b) => ");
        result = (a >> b);
        document.write(result);
        document.write(linebreak);

    </script>

  </body>
</html>
=====
```

Assignment Operators

Try the following code to implement assignment operator in JavaScript.

```
<html>
  <body>
    <script type = "text/javascript">

        var a = 33;
        var b = 10;
        var linebreak = "<br />";

        document.write("Value of a => (a = b) => ");
        result = (a = b);
```

```
        document.write(result);
        document.write(linebreak);

        document.write("Value of a => (a += b) => ");
        result = (a += b);
        document.write(result);
        document.write(linebreak);

        document.write("Value of a => (a -= b) => ");
        result = (a -= b);
        document.write(result);
        document.write(linebreak);

        document.write("Value of a => (a *= b) => ");
        result = (a *= b);
        document.write(result);
        document.write(linebreak);

        document.write("Value of a => (a /= b) => ");
        result = (a /= b);
        document.write(result);
        document.write(linebreak);

        document.write("Value of a => (a %= b) => ");
        result = (a %= b);
        document.write(result);
        document.write(linebreak);

    </script>

  </body>
</html>
```

Conditional Operator (? :)

Try the following code to understand how the Conditional Operator works in JavaScript.

```
<html>
  <body>
    <script type = "text/javascript">
      <!--
        var a = 10;
        var b = 20;
        var linebreak = "<br />";

        document.write ("((a > b) ? 100 : 200) => ");
        result = (a > b) ? 100 : 200;
        document.write(result);
        document.write(linebreak);

        document.write ("((a < b) ? 100 : 200) => ");
```

```
        result = (a < b) ? 100 : 200;
        document.write(result);
        document.write(linebreak);

    </script>

  </body>
</html>


Rest parameter
// Without rest parameter
function fun(a, b){
        return a + b;
}
console.log(fun(1, 2)); // 3
console.log(fun(1, 2, 3, 4, 5)); // 3



// rest parameter
function fun(...input){
        let sum = 0;
        for(let i of input){
                sum+=i;
        }
        return sum;
}
console.log(fun(1,2)); //3
console.log(fun(1,2,3)); //6
console.log(fun(1,2,3,4,5)); //15
```