

Task 29: Use the ++ and -- operators on a numeric variable.

```
<!DOCTYPE html>
<html>
  <head>
    <title>java script tasks</title>
  </head>
  <body>
    <script>
      var num = 5;
      num++;
      document.write(num + '<br>');
      num--;
      document.write(num);
    </script>
  </body>
</html>
```

Output:

6
5

Task 30: Explore the precedence of operators by combining multiple operators in a single expression.

```
<!DOCTYPE html>
<html>
  <head>
    <title>java script tasks</title>
  </head>
  <body>
    <script>
      document.write(5+10*2/10%10);
    </script>
  </body>
</html>
```

Output:

7

Comparisons, Conditional branching: if, ‘?’

1. Comparisons:

Task 31: Compare two numbers using relational operators (<,>,<=,>=)

```
<!DOCTYPE html>
<html>
  <head>
    <title>java script tasks</title>
  </head>
  <body>
    <script>
      var num1 = 5;
      var num2 = 3;

      document.write(num1>num2);document.write('<br>');
      document.write(num1<num2);document.write('<br>');
      num2 =5;
      document.write(num1 <= num2);document.write('<br>');
      num1=2;
      document.write(num1>=num2);document.write('<br>');
    </script>
  </body>
</html>
```

Output:

```
true
false
true
false
```

Task 32: Use equality (==) and strict equality (===) operators to compare different data types and note the differences

```
<!DOCTYPE html>
<html>
  <head>
    <title>java script tasks</title>
  </head>
  <body>
    <script>
      var num1 = 5;
      var num2 = '5';
      document.writeln((num1 == num2) + '<br>');
      document.writeln(num1===num2);
    </script>
  </body>
</html>
```


Output:

```
true
false
```

Task 33: Compare two strings lexicographically

```
<!DOCTYPE html>
<html>
  <head>
    <title>java script tasks</title>
  </head>
  <body>
    <script>
      var s1 = "apple";
      var s2 = "banana";
      document.writeln((s1<s2) + '<br>' + (s1 >= s2) );
    </script>
  </body>
</html>
```

Output:



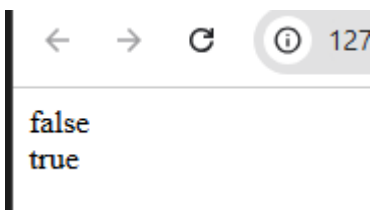
127.0.0.1:550

true
false

Task 34: Use the inequality (!=) and strict inequality (!==) operators to compare values.

```
<!DOCTYPE html>
<html>
  <head>
    <title>java script tasks</title>
  </head>
  <body>
    <script>
      var s1 = 3;
      var s2 = '3';
      document.writeln((s1!=s2) + '<br>' + (s1!==s2 ));
    </script>
  </body>
</html>
```

Output:



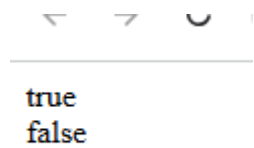
127

false
true

Task 35: Compare null and undefined using both == and ===.

```
<!DOCTYPE html>
<html>
  <head>
    <title>java script tasks</title>
  </head>
  <body>
    <script>
      var undef;
      document.writeln((undef == null) + '<br>' + (undef ===null));
    </script>
  </body>
</html>
```

Output:



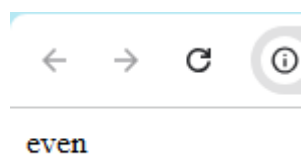
true
false

2. Conditional branching: if, '?:'

Task 36: Write an if statement that checks if a number is even or odd

```
<!DOCTYPE html>
<html>
  <head>
    <title>java script tasks</title>
  </head>
  <body>
    <script>
      var num = 4;
      if(num%2 == 0)
      {
        document.write("even");
      }
      else {
        document.write("odd");
      }
    </script>
  </body>
</html>
```

Output:



even

Task 37: Use nested if statements to classify a number as negative, positive, or zero

```
<!DOCTYPE html>
<html>
  <head>
    <title>java script tasks</title>
  </head>
  <body>
    <script>
      var num = 4;
      if(num > 0)
      {
        document.write("positive");
      }
      else {
        if(num < 0)
          document.write("negative");
        else
          document.write("zero");
      }
    </script>
  </body>
</html>
```

Output:

A screenshot of a web browser window. The address bar shows a back arrow, a forward arrow, a refresh icon, and the IP address 127.0.0.1. Below the address bar, the word "positive" is displayed in a bold, black, monospace font.

Task 38: Use the conditional (ternary) operator '?' to rewrite a simple if...else statement.

```
<!DOCTYPE html>
<html>
  <head>
    <title>java script tasks</title>
  </head>
  <body>
    <script>
      var num = 4;
      (num%2 == 0)? document.write("even"): document.write("odd");
    </script>
  </body>
</html>
```

Output:

A screenshot of a web browser window, similar to the one in Task 37. The address bar shows the same navigation icons and IP address. Below the address bar, the word "even" is displayed in a bold, black, monospace font.

Task 39: Check the validity of a variable using the ? operator

```
<!DOCTYPE html>
<html>
  <head>
    <title>java script tasks</title>
  </head>
  <body>
    <script>
      let obj = {
        name:"vishnu",
        age : 19
      };
      var str = obj?.name;
      document.write(str);
    </script>
  </body>
</html>
```

Output:



Task 40: Use the conditional operator to assign a value to a variable based on a condition.

```
<!DOCTYPE html>
<html>
  <head>
    <title>java script tasks</title>
  </head>
  <body>
    <script>
      var str;
      str = (5>3)?"vishnu":"prasad";
      document.write(str);
    </script>
  </body>
</html>
```

Output:



Logical operators, Functions

1. Logical operators:

Task 41: Evaluate various combinations of logical operators (&&, ||, !).

```
<!DOCTYPE html>
<html>
  <head>
    <title>java script tasks</title>
  </head>
  <body>
    <script>
      var str;
      str = (5>3)&&(5<2)?"true":"false";
      document.write(str + '<br>');
      str = (5>3)|| (5<2)?"true":"false";
      document.write(str + '<br>');
      str = !(5<2)?"true":"false";
      document.write(str + '<br>');
    </script>
  </body>
</html>
```

Output:

```
false
true
true
```

Task 42: Use logical operators to write a condition that checks if a number is in a given range.

```
<!DOCTYPE html>
<html>
  <head>
    <title>java script tasks</title>
  </head>
  <body>
    <script>
      var str;var num = 3;
      str = (5>num)&&(num>2)?"num in range ":"num out of range";
      document.write(str + '<br>');</script>
    </body>
  </html>
```

Output:

 127.0

```
num in range
```

Task 43: Use the NOT (!) operator to invert a boolean value

```
<!DOCTYPE html>
<html>
  <head>
    <title>java script tasks</title>
  </head>
  <body>
    <script>
      var bool = false;
      if(!bool){
        document.write("inverted");
      }

    </script>
  </body>
</html>
```

Output:

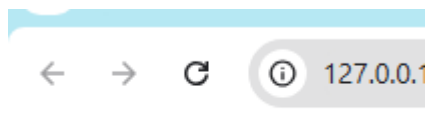


inverted

Task 44: Evaluate the short-circuiting nature of logical operators.

```
<!DOCTYPE html>
<html>
  <head>
    <title>java script tasks</title>
  </head>
  <body>
    <script>
      var n = 5;
      var num = (--n)&&(n++)?document.write(n+'<br>'):document.write(n+'<br>');
      var num = (--n)|| (n++)?document.write(n):document.write(n);
    </script>
  </body>
</html>
```

Output:

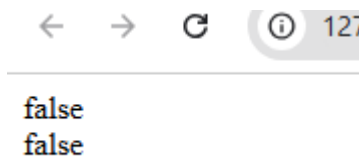


5
4

Task 45: Compare two non-boolean values using logical operators and observe the result.

```
<!DOCTYPE html>
<html>
  <head>
    <title>java script tasks</title>
  </head>
  <body>
    <script>
      var str = "3" ;var num = 3;
      var s = (s == num)&&(num===str)?"true":"false";
      document.write(s + '<br>');
      var s = (s == num)|| (num===str)?"true":"false";
      document.write(s + '<br>');
    </script>
  </body>
</html>
```

Output:



false
false

2. Functions

Task 46: Write a function that takes two numbers as arguments and returns their sum.

```
<!DOCTYPE html>
<html>
  <head>
    <title>java script tasks</title>
  </head>
  <body>
    <script>
      function fun(n1,n2){ return n1+n2;}
      document.write(fun(3,4));
    </script>
  </body>
</html>
```

Output:



7

Task 47: Create a function that calculates the area of a rectangle.

```
<!DOCTYPE html>
<html>
  <head>
    <title>java script tasks</title>
  </head>
  <body>
    <script>
      function rarea(l,b)
      {
        return l*b;
      }
      document.write(rarea(3,4));
    </script>
  </body>
</html>
```

Output:



12

Task 48: Declare a function without parameters and call it.

```
<!DOCTYPE html>
<html>
  <head>
    <title>java script tasks</title>
  </head>
  <body>
    <script>
      function fun()
      {
        return "function called";
      }
      document.write(fun());
    </script>
  </body>
</html>
```

Output:



function called

Task 49: Write a function that returns nothing and observe the default return value.

```
<!DOCTYPE html>
<html>
  <head>
    <title>java script tasks</title>
  </head>
  <body>
    <script>
      function fun()
      {
        return ;
      }
      document.write(fun());
    </script>
  </body>
</html>
```

Output:



← → ↻ ⓘ 127.0.0.1

undefined

Task 50: Declare a function with default parameters and call it with different arguments.

```
<!DOCTYPE html>
<html>
  <head>
    <title>java script tasks</title>
  </head>
  <body>
    <script>
      function rarea(l =5,b=6)
      {
        return l*b;
      }
      document.write(rarea(3,4));
    </script>
  </body>
</html>
```

Output:



← → ↻ ⓘ 127.0.0.1

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