

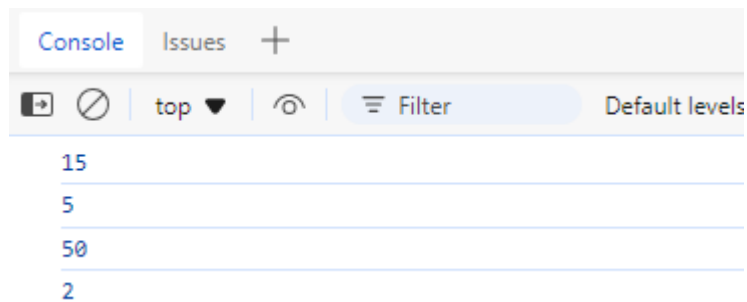
Task 26:

Convert a string to a number using both implicit and explicit conversion.

code:

```
Users > Administrator > task 26.html > html
<html>
  <head>
    <title>
      task
    </title>
  </head>
  <body>
    <script>
      var a,b;
      a=10;
      b=5;
      console.log(a+b);
      console.log(a-b);
      console.log(a*b);
      console.log(a/b);
    </script>
  </body>
</html>
```

output:



```
Console  Issues  +
top ▼  Filter  Default levels
15
5
50
2
```

Task 27:

Convert a boolean to a string and vice versa.

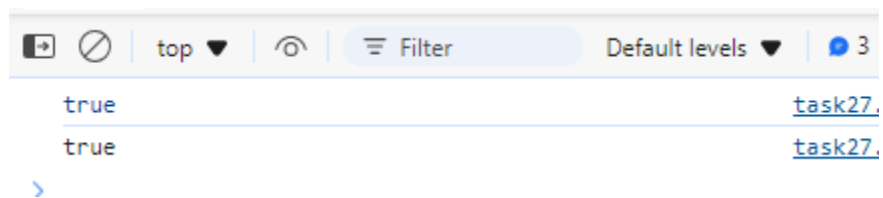
code:

```

<html>
  <head>
    <title>
      task
    </title>
  </head>
  <body>
    <script>
      let name="john";
      let file=true;
      let n= Boolean(name);
      let f=String(file);
      console.log(n);
      console.log(f);
    </script>
  </body>
</html>

```

output:



```

true task27.
true task27.
>

```

Task 28:

Practice basic arithmetic operators (+, -, *, /, %).

code:

```

<html>
  <head>
    <title>
      task
    </title>
  </head>
  <body>
    <script>
      var a,b;
      a=10;
      b=5;
      console.log(a+b);
      console.log(a-b);
      console.log(a*b);
      console.log(a/b);
      console.log(a%b);
    </script>
  </body>
</html>

```

output:

| | |
|----|-------------------------|
| 15 | 28.html |
| 5 | 28.html |
| 50 | 28.html |
| 2 | 28.html |
| 0 | 28.html |

Task 29:

Use the ++ and -- operators on a numeric variable.

code:

```

<html>
  <head>
    <title>
      task
    </title>
  </head>
  <body>
    <script>
      var a,b;
      a=10;
      b=5;
      console.log(a++);
      console.log(++a);
      console.log(--b);
      console.log(b--);
      console.log(a--);
    </script>
  </body>
</html>

```

output:

| | |
|----|-------------------------|
| 10 | 29.html |
| 12 | 29.html |
| 4 | 29.html |
| 4 | 29.html |
| 12 | 29.html |

Task 30:

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

code:

```

<html>
  <head>
    <title>
      task
    </title>
  </head>
  <body>
    <script>
      var a,b,c;
      a=10;
      b=53;
      c=18
      console.log(a+b*c/a%b);
      console.log(a==b || a!=c&& c==b);
    </script>
  </body>
</html>

```

output:

| | |
|--------------------|----------------------------|
| 52.400000000000006 | 30.html:13 |
| false | 30.html:14 |

Task 31:

Compare two numbers using relational operators (>, <, >=, <=).

code:

```

html>
  <head>
    <title>
      task
    </title>
  </head>
  <body>
    <script>
      var a,b;
      a=10;
      b=5;
      console.log(a<b);
      console.log(a>b);
      console.log(a<=b);
      console.log(a>=b);
    </script>
  </body>
/html>

```

output:

| | |
|-------|-------------------------|
| false | 31.html |
| true | 31.html |
| false | 31.html |
| true | 31.html |

Task 32:

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

code:

```

<html>
  <head>
    <title>
      task
    </title>
  </head>
  <body>
    <script>
      var a,b;
      a=10;
      b=5;

      console.log(a==b);
      console.log(a===b);
    </script>
  </body>
</html>

```

output:

| | |
|-------|----------------------------|
| false | 32.html:13 |
| false | 32.html:14 |

Task 33:

Compare two strings lexicographically.

code:

```

<html>
  <head>
    <title>
      task
    </title>
  </head>
  <body>
    <script>
      var str1="john";
      var str2="alex";
      if(str1<str2){
        console.log(`"${str1}"is lexicographically smaller than"${str2}"`);
      }
      else if(str1>str2){
        console.log(`"${str1}"is lexicographically greater than"${str2}"`);
      } else{
        console.log(`"${str1}" and "${str2}" are lexicographically equal`);
      }
    </script>
  </body>
</html>

```

output:

```
"john" is lexicographically greater than "alex"
```

[33.html:15](#)

Task 34:

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

code:


```

<html>
  <head>
    <title>
      task
    </title>
  </head>
  <body>
    <script>
      var a,b;
      a=10;
      b=5;
      console.log(a!=b);
      console.log(a!==b);
    </script>
  </body>
</html>

```

output:

| | |
|------|------------|
| true | <u>34.</u> |
| true | <u>34.</u> |

Task 35:

Compare null and undefined using both == and ===.

code:

```
<html>
  <head>
    <title>
      task
    </title>
  </head>
  <body>
    <script>
      var a=null;
      var b;
      console.log(a==b);
      console.log(a===b);
    </script>
  </body>
</html>
```

output:

| | |
|-------|----------------------------|
| true | 35.html:11 |
| false | 35.html:12 |

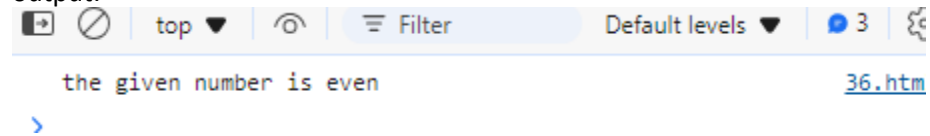
Task 36:

Write an if statement that checks if a number is even or odd.

code:

```
<html>
  <head>
    <title>
      task
    </title>
  </head>
  <body>
    <script>
      var a=2;
      if(a%2==0){
        console.log("the given number is even");
      }
      else{
        console.log("the given number is odd");
      }
    </script>
  </body>
</html>
```

output:



the given number is even [36.htm](#)

Task 37:

Use nested if statements to classify a number as negative, positive, or zero.

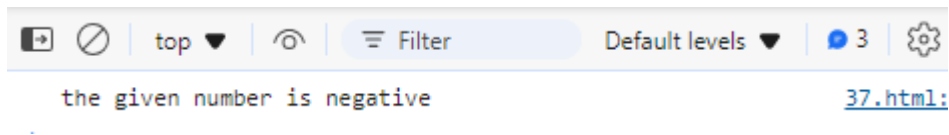
code:

```

<html>
  <head>
    <title>
      task
    </title>
  </head>
  <body>
    <script>
      var a=-2;
      if(a==null){
        console.log("the given number is invalid");
      }
      else{
        if(a>0){
          console.log("the given number is positive");
        }if(a<0){
          console.log("the given number is negative");
        }else{
          console.log("the given number is zero");
        }
      }
    </script>
  </body>
</html>

```

output:



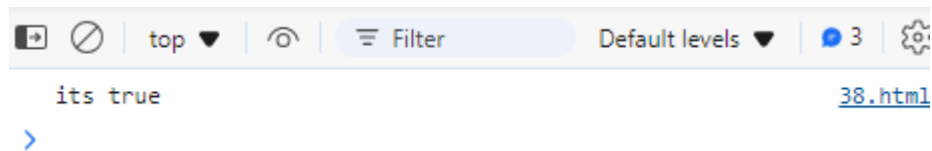
Task 38:

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

code:

```
<html>
  <head>
    <title>
      task
    </title>
  </head>
  <body>
    <script>
      var a=5;
      var b=2;
      var c= a>b?"its true":"its false";
      console.log(c);
    </script>
  </body>
</html>
```

output:



its true [38.html](#)

Task 39:

Check the validity of a variable using the ? operator.







code:

```

<html>
  <head>
    <title>
      task
    </title>
  </head>
  <body>
    <script>
      var name="john";
      var age;
      var c= name?"its valid":"its invalid";
      var d= age?"its valid":"its invalid";
      console.log(c);
      console.log(d);
    </script>
  </body>
</html>

```

output:

| | | | | | | | |
|---|---|-------|---|--|------------------|--|---|
|  |  | top ▼ |  |  Filter | Default levels ▼ |  3 |  |
| its valid | | | | | | | 39.html |
| its invalid | | | | | | | 39.html |

Task 40:

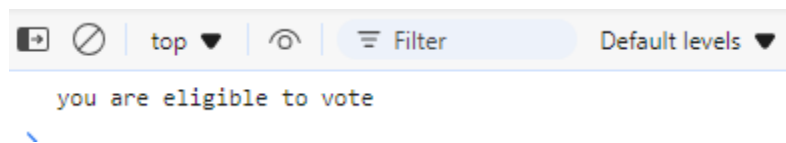
Use the conditional operator to assign a value to a variable based on a condition.

code:

```
<html>
  <head>
    <title>
      task
    </title>
  </head>
  <body>
    <script>
      var a=18;

      var c= a>="18"? "you are eligible to vote": "you are not eligible to vote";
      console.log(c);
    </script>
  </body>
</html>
```

output:



The screenshot shows a web browser's developer console. At the top, there is a toolbar with icons for opening the console, disabling, and zooming, along with a 'Filter' button and a 'Default levels' dropdown. Below the toolbar, the console displays the output 'you are eligible to vote' in a monospace font. A small blue arrow icon is visible at the bottom left of the console area.

Task 41:

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

code:

```

<html>
  <head>
    <title>
      task
    </title>
  </head>
  <body>
    <script>
      var a,b,c;
      a=10;
      b=53;
      c=18
      console.log(a==b || a!=c);
      console.log(a!=c&& c==b);
    </script>
  </body>
</html>

```

output:

```

true 41.html
false 41.html
>

```

Task 42:

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

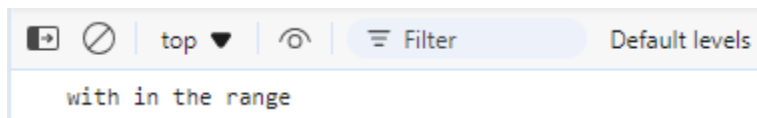
code:


```

<html>
  <head>
    <title>
      task
    </title>
  </head>
  <body>
    <script>
      var a;
      a=105;
      if((a<500)|| (a>0)){
        console.log("with in the range");
      }
      else if((a<500)&&(a>0)){
        console.log("with in the range");
      }
      else{
        console.log("Not in the range");
      }
    </script>
  </body>
</html>

```

output:



The screenshot shows a web browser's developer console. At the top, there is a toolbar with icons for opening the console, disabling it, and a 'top' dropdown. To the right of the toolbar is a 'Filter' button and a 'Default levels' link. Below the toolbar, the console displays the text 'with in the range'.

Task 43:

Use the NOT (!) operator to invert a boolean value.

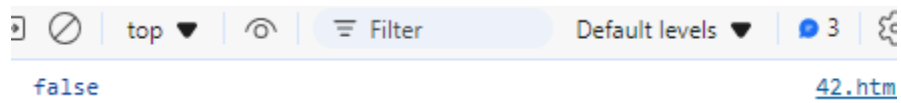
code:

```

<html>
  <head>
    <title>
      task
    </title>
  </head>
  <body>
    <script>
      var boolean=true;
      console.log(!boolean);
    </script>
  </body>
</html>

```

output:



A screenshot of a web browser's developer console. The console shows the output 'false' in blue text. Above the output, there is a toolbar with icons for 'top', 'Filter', 'Default levels', and a notification icon showing '3'. The file path '42.htm' is visible in the bottom right corner of the console area.

Task 44:

Evaluate the short-circuiting nature of logical operators.

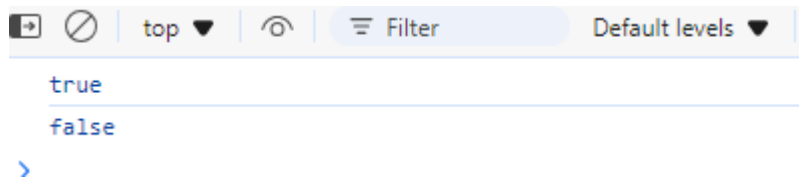
code:

```

<html>
  <head>
  </head>
  <body>
    <script>
      var a,b;
      a=true;
      b=false;
      var c,d;
      c=a||b;
      d=a&&b;
      console.log(c);
      console.log(d);
    </script>
  </body>
</html>

```

output:

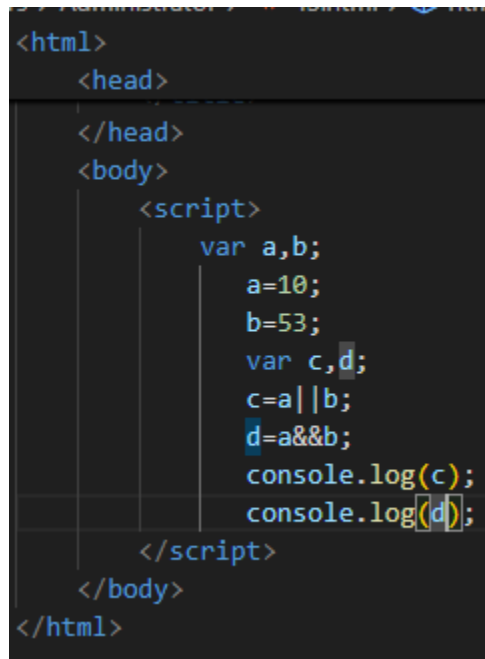


```
true
false
>
```

Task 45:

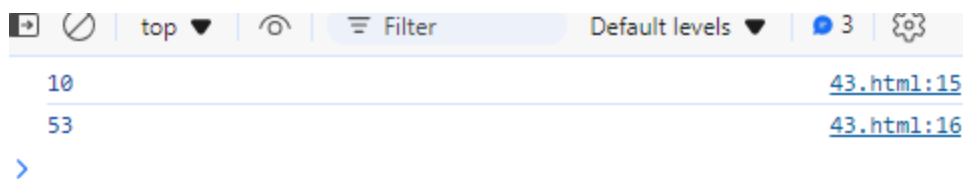
Compare two non-boolean values using logical operators and observe the result

code:



```
<html>
  <head>
  </head>
  <body>
    <script>
      var a,b;
      a=10;
      b=53;
      var c,d;
      c=a||b;
      d=a&b;
      console.log(c);
      console.log(d);
    </script>
  </body>
</html>
```

output:



```
10 43.html:15
53 43.html:16
>
```

Task 46:

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

code:

```

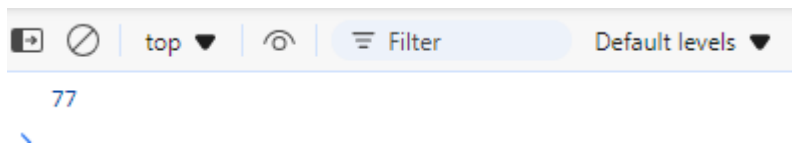
<html>
  <head>
    <title>
      task
    </title>
  </head>
  <body>
    <script>
      var a=23,b=54;

      function addition(a,b){
        console.log( a+b);
      }

      addition(a,b);
    </script>
  </body>
</html>

```

output:



Task 47:

Create a function that calculates the area of a rectangle.

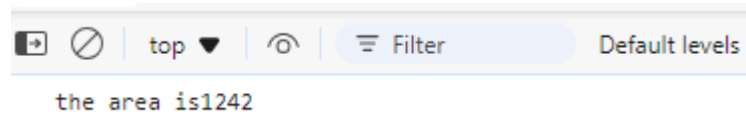
code:

```
<html>
  <head>
    <title>
      task
    </title>
  </head>
  <body>
    <script>
      var a=23,b=54;

      function area(a,b){
        console.log("the area is"+a*b);
      }

      area(a,b);
    </script>
  </body>
</html>
```

output:

A screenshot of a web browser's developer console. The top bar shows icons for console, network, and other tools, along with a 'Filter' button and 'Default levels' text. The console area displays the output 'the area is1242' in a monospace font.

Task 48:

Declare a function without parameters and call it.

code:

```
<html>
  <head>
    <title>
      task
    </title>
  </head>
  <body>
    <script>
      var a=23,b=54;

      function area(){
        console.log( a+b);
      }

      area();
    </script>
  </body>
</html>
```

output:

