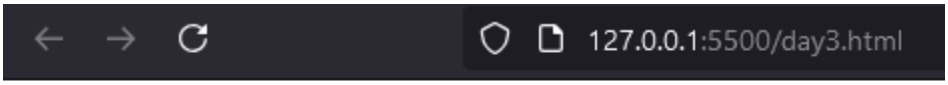
Task 26: Convert a string to a number using both implicit and explicit conversion.

```
<!DOCTYPE html>
<html>
   <head>
      <title>
         task26
      </title>
   </head>
   <body>
      <script>
         var j="456";
         document.write(typeof(j-5)+"<br>");
         j=Number(j);
         document.write(typeof(j));
      </script>
   </body>
</html>
```

Output



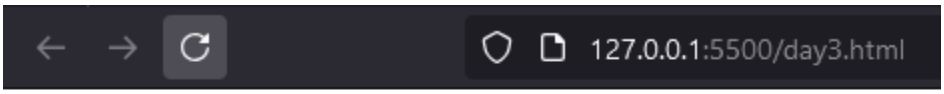
number
number

Task 27: Convert a boolean to a string and vice versa.

```
<!DOCTYPE html>
<html>
   <head>
      <title>
         task26
      </title>
   </head>
   <body>
      <script>
         var j=true;
         document.write(typeof(j)+"<br>");
         j=String(j);
         document.write(typeof(j)+"<br>");
         j=Boolean(j);
```

```
        document.write(typeof(j));
      </script>
   </body>
</html>
```

Output



boolean
string
boolean

Task 28: Practice basic arithmetic operators (+, -, *, /, %)

```
<!DOCTYPE html>
<html>
   <head>
      <title>
         task26
      </title>
   </head>
   <body>
      <script>
         var a=prompt("Enter ther value of a");
         var b=prompt("Enter ther value of b");
         var op=prompt("1.add2.sub3.mul4.div Enter operation");
         if(op=="+"){
          a=Number(a);
          b=Number(b);
         document.writeln(a+b);}
         else if(op=="-")
         document.writeln(a-b);
         else if(op=="*")
         document.writeln(a*b);
         else if(op=="/")
         document.writeln(a/b);
         else
         document.writeln("invalid input");
      </script>
   </body>
</html>
```

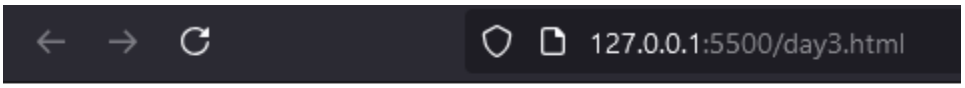
Output

18

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

```
<!DOCTYPE html>
<html>
   <head>
      <title>
         task26
      </title>
   </head>
   <body>
      <script>
        let k=79;
        document.write(++k +"<br>");
        document.write(k++ +"<br>");
        document.write(--k +"<br>");
        document.write(k-- +"<br>");
      </script>
   </body>
</html>
```

Output



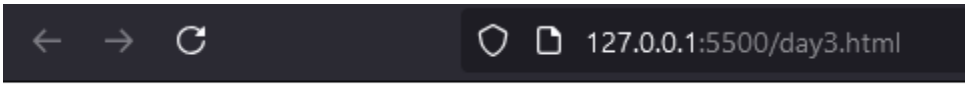
80
80
80
80

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

```
<!DOCTYPE html>
<html>
   <head>
      <title>
         task26
      </title>
   </head>
   <body>
      <script>
```

```
        let s=(100+200)-20*8/8;
        document.write(s);
       </script>
   </body>
</html>
```

Output

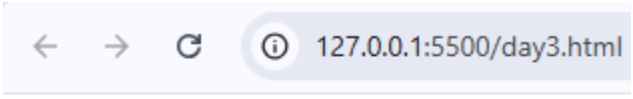


280 \

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

```
<!DOCTYPE html>
<html>
   <head>
      <title>
         task31
      </title>
   </head>
   <body>
      <script>
         let s=23;
         let a=23;
         document.write((s< a)+"<br>");
         document.write((s<=a)+"<br>");
         document.write((s> a)+"<br>");
         document.write((s>=a)+"<br>");
      </script>
   </body>
</html>
```

Output

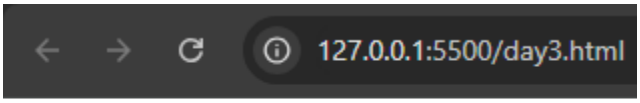


false
true
false
true

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

```
<!DOCTYPE html>
<html>
   <head>
      <title>
         task31
      </title>
   </head>
   <body>
      <script>
         let s=23;
         let a="23";
         document.write((s==a)+"<br>");
         document.write((s===a)+"<br>");
      </script>
   </body>
</html>
```

Output

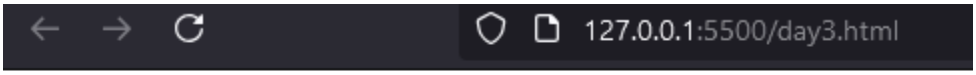


true
false

Task 33: Compare two strings lexicographically

```
<!DOCTYPE html>
<html>
   <head>
      <title>
         task26
      </title>
   </head>
   <body>
      <script>
       let s="thiyaneshwar",k="Thiyaneshwar";
       document.writeln((s===k));
      </script>
   </body>
</html>
```

Output



false

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

```
<!DOCTYPE html>
<html>
   <head>
      <title>
         task26
      </title>
   </head>
   <body>
      <script>
       let s="thiyaneshwar",k="Thiyaneshwar";
       document.writeln((s!=k));
       document.writeln((s!==k));
      </script>
   </body>
</html>
```

Output

true true

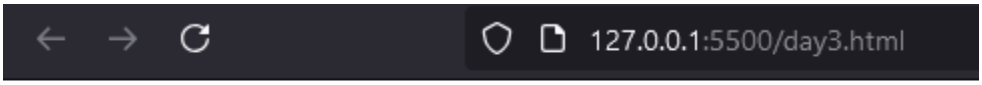
Task 35: Compare null and undefined using both == and ===

```
<!DOCTYPE html>
<html>
   <head>
      <title>
         task26
      </title>
   </head>
   <body>
      <script>
       let s=null,k;
```

```
        document.writeln((s==k)+"<br>");
        document.writeln((s===k));

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

Output



true
false

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

```
 <!DOCTYPE html>
<html>
   <head>
      <title>
         task26
      </title>
   </head>
   <body>
      <script>
       let s=prompt("Enter a number");
       if(Number(s)%2==0)
       document.write("Given number is even")
      else
      document.write("Given number is odd")

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

Output

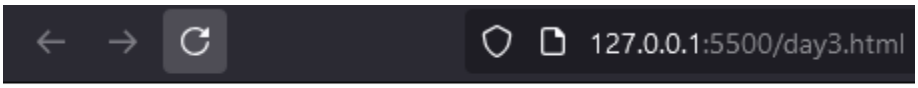
Given number is even

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

```
<!DOCTYPE html>
```

```
<html>
   <head>
      <title>
         task26
      </title>
   </head>
   <body>
      <script>
       let s=prompt("Enter a number");
       if(Number(s)==0)
       document.write("Given number is zero")
      else{
      if(Number(s)>0)
      document.write("Given number is positive");
      else
      document.write("Given number is negative");
      }
      </script>
   </body>
</html>
```

Output



Given number is negative

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

```
 <!DOCTYPE html>
<html>
   <head>
      <title>
         task26
      </title>
   </head>
   <body>
      <script>
       let s=prompt("Enter a number");
       if(Number(s)==0)
       document.write("Given number is zero")
      else{
```

```
    Number(s)>0?document.writeln("Given number is positive"):document.writeln("Given number is negative");
    }
    </script>
  </body>
</html>
```

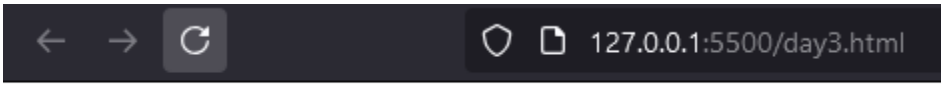
Output

Given number is positive

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

```
<!DOCTYPE html>
<html>
  <head>
    <title>
      task26
    </title>
  </head>
  <body>
    <script>
     let s;
     var j=95;
     document.write(s??j);
      </script>
  </body>
</html>
```

Output



95

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

```
  <!DOCTYPE html>
<html>
  <head>
    <title>
      task26
    </title>
```

```
    </head>
    <body>
        <script>
         let s=100;
         var j=95;
         let a=s>j?s:j;
         document.writeln(a);
        </script>
    </body>
</html>
```

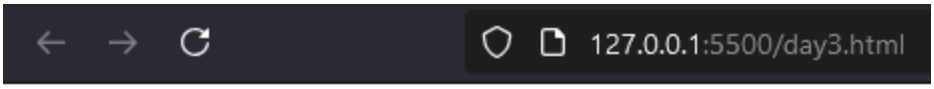
Output

100

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

```
 <!DOCTYPE html>
<html>
    <head>
        <title>
            task26
        </title>
    </head>
    <body>
        <script>
         let s=19;
         let g=false;
         if(s&&g)
         document.writeln("and");
        if(s || g)
        document.writeln("OR");
        if(!g)
        document.writeln("NOT");
        </script>
    </body>
</html>
```

Output

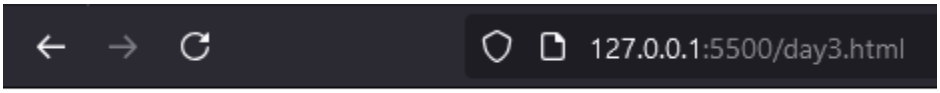


OR NOT

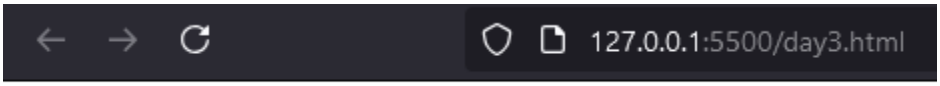
Task 42: Use logical operators to write a condition that checks if a number is in a given range.

```
<!DOCTYPE html>
<html>
   <head>
      <title>
         task26
      </title>
   </head>
   <body>
      <script>
       let s=prompt("Enter a number");
       if(s<100 && s>25)
       document.writeln("Number is in bound");
      else
      document.write("Number is out of bound");
      </script>
   </body>
</html>
```

Output



Number is out of bound



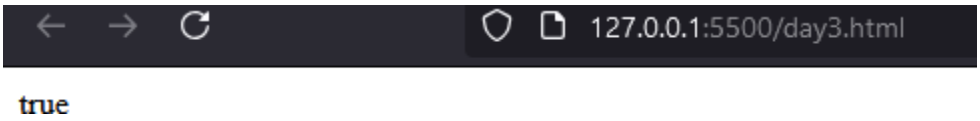
Number is in bound

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

```
<!DOCTYPE html>
<html>
   <head>
      <title>
         task26
      </title>
   </head>
   <body>
      <script>
       let s=false;
```

```
        document.write((!s));
      </script>
   </body>
</html>
```

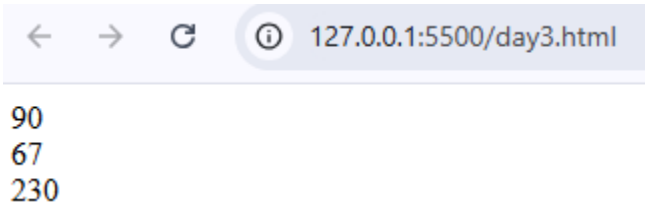
Output



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

```
<!DOCTYPE html>
<html>
   <head>
      <title>
         task31
      </title>
   </head>
   <body>
      <script>
         let s=23;
         document.writeln((90 || 25 || 47)+"<br>");
         document.writeln((25 && 67)+"<br>");
         document.writeln((230 || 67 && 56 ));
      </script>
   </body>
</html>
```

Output

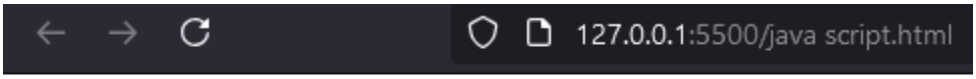


Task 45: Compare two non-boolean values using logical operators and observe the result.

```
<!DOCTYPE html>
<html>
   <head>
      <title>java script tasks</title>
   </head>
   <body>
```

```
        <script>
            var num = "Black";
            let k=18;
            document.writeln((num && 18)+"<br>");
            document.writeln(num || 18);
        </script>
    </body>
</html>
```

Output



18
Black

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 add(a,b)
            {
                return a+b;
            }
            document.writeln(add(30,56));
        </script>
    </body>
</html>
```

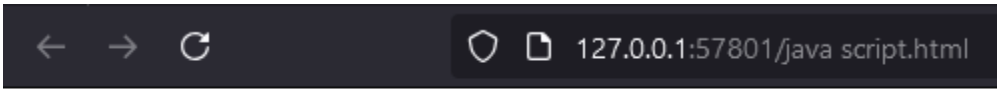
Output

86

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 area(a,b)
         {
            document.writeln(a*b);
         }
         let l=prompt("enter the length of rectangle");
         let b=prompt("enter the width of rectangle");
         area(l,b);
      </script>
   </body>
</html>
```

Output

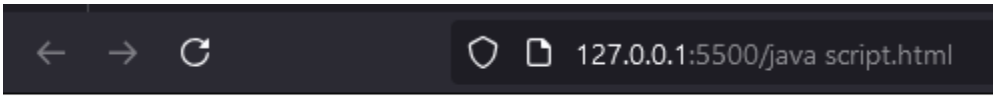


434.3

Task 48: Declare a function without parameters and call it

```
<!DOCTYPE html>
<html>
   <head>
      <title>java script tasks</title>
   </head>
   <body>
      <script>
         function area()
         {
            document.writeln("Time pass");
         }
         area();
      </script>
   </body></html>
```

Output

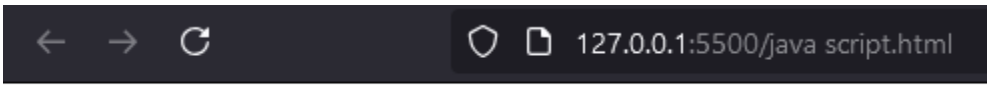


Time pass

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 area()
         {
            return;
         }
         document.writeln(area());
      </script>
   </body>
</html>
```

Output



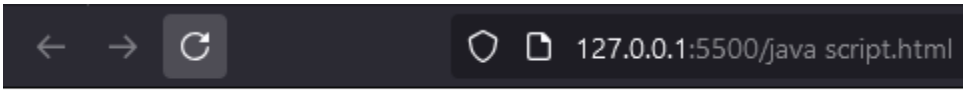
undefined

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 area(k=100,b=97)
         {
            return k+b;
         }
```

```
        document.writeln(area(4,6));
    </script>
  </body>
</html>
```

Output

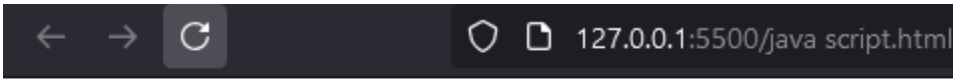


10

Task 51: Declare a simple arrow function named greet that takes one parameter name and returns the string “Hello, name!”. Test your function with various names

```
<!DOCTYPE html>
<html>
  <head>
    <title>java script tasks</title>
  </head>
  <body>
    <script>
        let home=(name)=>{
          document.writeln(`Hello ${name}!`+"<br>");
        }
      home("Thiyaneshwar");
      home("Raj");
      home("Kumar");
    </script>
  </body>
</html>
```

Output



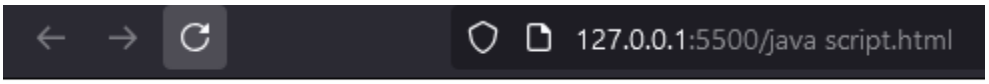
Hello Thiyaneshwar!
Hello Raj!
Hello Kumar!

Task 52: Write an arrow function named add that takes two parameters and returns their sum. Validate your function with several pairs of numbers.

```
<!DOCTYPE html>
<html>
   <head>
      <title>java script tasks</title>
   </head>
   <body>
      <script>
            let add=(a,b)=>{
               document.writeln(a+b);
            }
         add(13,14);

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

Output



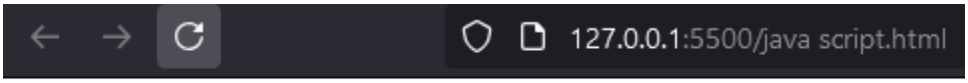
27

Task 53: Declare an arrow function named isEven that checks if a number is even. If the number is even, it should return true; otherwise, false. Remember that if the arrow function body has a single statement, you can omit the curly braces

```
<!DOCTYPE html>
<html>
   <head>
      <title>java script tasks</title>
   </head>
   <body>
      <script>
            let isEven=(a)=> document.writeln((a%2==0?true:false));
            let a=prompt("Enter a number");
         isEven(a);
```

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

Output



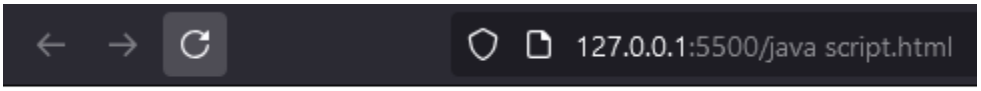
false

\

Task 54: Implement an arrow function named maxValue that takes two numbers as parameters and returns the larger number. Here, you'll need to use curly braces for the function body and the return statement.

```
<!DOCTYPE html>
<html>
  <head>
    <title>java script tasks</title>
  </head>
  <body>
    <script>
        let  maxValue=(a,b)=>
          {
            return a=a>b?"A is greater":"B is greater";
          }
        document.writeln(maxValue(787,8));;
    </script>
  </body>
</html>
```

Output

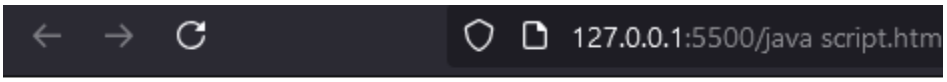


A is greater

Task 55: Examine the behavior of the this keyword inside an arrow function vs a traditional function. Create an object named myObject with a property value set to 10 and two methods: multiplyTraditional using a traditional function and multiplyArrow using an arrow function. Both methods should attempt to multiply the value property by a number passed as a parameter. Check the value of this inside both methods.

```
<!DOCTYPE html>
<html>
   <head>
      <title>java script tasks</title>
   </head>
   <body>
      <script>
            let  myobject=
               {
                  value:10,
                  multiplyt:function(x)
                  {
                     return x*this.value;
                  },
                  multiplyarrow:(x)=>
                  {
                     return x*this.value;
                  }
               };
            document.writeln("multiplyTraditional "+myobject.multiplyt(23)+"<br>");
            document.writeln("multiplyTraditional "+myobject.multiplyarrow(19));
      </script>
   </body>
</html>
```

Output



multiplyTraditional 230
multiplyTraditional NaN