

## **Assignment 1**

1. Create a function that takes a number as it's only argument and returns true if it is less than or equal to 0,otherwise return false.
- 

```
<html>

<head>

<script>

function myfun(){

var num = (document.f1.n1.value);

if(num <=0){

document.writeln("True"); }

else{

document.writeln("False"); } }

</script>

</head>

<body>

<form name="f1">

<h3>num<=0 -- True! Enter a number..</h3>

<input type="number" name="n1">

<input type="button" value="Check" onClick="myfun()" id="button">

</form>

<style>

#button{

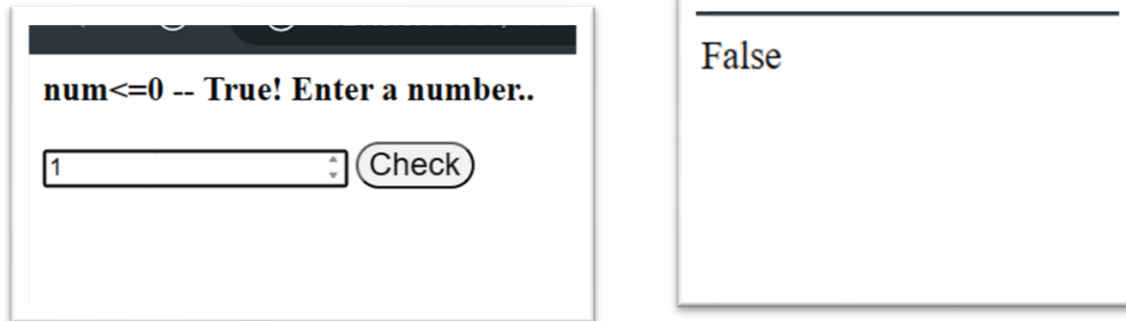
border-radius: 20px;

font-size: large; }
```

```
</style> </body> </html>
```

---

**Output :**

The image shows two side-by-side browser window screenshots. The left window displays a form with the text "num<=0 -- True! Enter a number..", a text input field containing the number "1", and a "Check" button. The right window displays the output "False".

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**2. Write a JavaScript program to find the area of a triangle.**

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```
<html>
<head>
<script>
function myfun() {
var base = (document.f1.n1.value);
var height = (document.f1.n2.value);
var area = 1/2* base* height;
document.writeln("Area of triangle is : ",area); }
</script>
</head>
<body>
<form name="f1">
<h3>Enter base of triangle </h3>
```

```

<input type="number" name="n1"> <br> <h3> Enter height of triangle </h3>

<input type="number" name="n2"> <input type="button" value="Area of  "
onClick="myfun()">

</form>

<style>
    #button{
        border-radius: 20px;
        font-size: large;    }
</style>

</body> </html>

```

---

### **Output :**

**Enter base of triangle**

**Enter height of triangle**

"/>

---

Area of triangle is : 90

---

### **3. Write a JavaScript program to determine whether a given year is a leap year .**

```

<html>

<head>

<script>

function myfun(){

var year = (document.f1.n1.value);

```

```
if( year%4==0){
document.writeln(year,"is a leap year"); }
else{
document.writeln(year," is not a leap year"); }}
</script>
</head>
<body>
<form name="f1">
<h3>Enter a year to check leap year or not ..</h3>
<input type="number" name="n1">
<input type="button" value="Check" onClick="myfun()">
</form>
<style>
    #button{
        border-radius: 20px;
        font-size: large; }
</style> </body> </html>
```

---

### **Output**

**Enter a year to check leap year or not ..**

2023

2023 is not a leap year

---

4. Create a function that takes a number as it's only argument and returns true if it is less than or equal to 0,otherwise return false.
- 

```
<html>
<head>
<script>
function myfun() {
var celcius = (document.f1.n1.value);
var fahrenheit = (document.f1.n2.value);
var f2c = (celcius * (9/5)+32);
var c2f = ((fahrenheit - 32) * 5/9);
document.writeln(fahrenheit,"° Fahrenheit to Celcius is : ",f2c+"°C");
document.writeln(" | | ");
document.writeln(celcius,"° Celcius to Fahrenheit is : ",c2f+"°F"); }
</script>
</head>
<body>
<form name="f1">
<h3>Enter temperature in Fahrenheit</h3>
<input type="number" name="n2">
<br> <h3> Enter temperature in Celcius</h3>
<input type="number" name="n1">
<input type="button" value="Check" onClick="myfun()">
</form> </body> </html>
```

---

### **Output :**

**Enter temperature in Fahrenheit**

**Enter temperature in Celcius**

68° Fahrenheit to Celcius is : 82.4°C || 28° Celcius to Fahrenheit is : 20°F

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### **5. Write a JavaScript function that returns array elements larger than a number.**

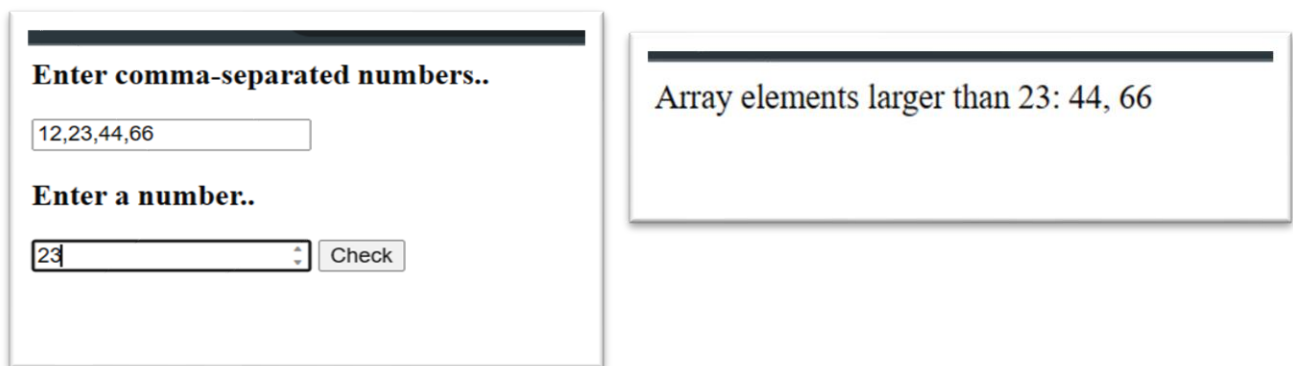
---

```
<html>
<head>
<script>
    function myfun() {
        var numbers = document.f1.n1.value.split(',').map(Number);
        var num = Number(document.f1.n2.value);
        var result = [];
        for (var i = 0; i < numbers.length; i++) {
            if (numbers[i] > num) {
                result.push(numbers[i]); } }
        document.writeln("Array elements larger than " + num + ": " + result.join(', '));
    } </script>
</head>
```

```
<body>
  <form name="f1">
    <h3>Enter comma-separated numbers..</h3>
    <input type="text" name="n1">
    <h3>Enter a number..</h3>
    <input type="number" name="n2">
    <input type="button" value="Check" onClick="myfun()" id="button">
  </form> </body> </html>
```

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**Output :**



Enter comma-separated numbers..  
12,23,44,66

Enter a number..  
23 Check

Array elements larger than 23: 44, 66

- 
6. Write a JavaScript conditional statement to sort three numbers. Display an alert box to show the result.
- 

```
<html>
<head>
<script>
  function myfun() {
```

```
var num1 = parseFloat(document.f1.n1.value);
var num2 = parseFloat(document.f1.n2.value);
var num3 = parseFloat(document.f1.n3.value);

var sortedNumbers = [num1, num2, num3].sort(function(a, b) {
    return a - b;
});

alert("Sorted numbers: " + sortedNumbers.join(', '));
}
</script>
</head>
<body>
    <form name="f1">
        <h3>Enter three numbers..</h3>
        <input type="number" name="n1"> <br>
        <input type="number" name="n2"> <br>
        <input type="number" name="n3"> <br>
        <input type="button" value="Sort" onClick="myfun()" id="button">
    </form>
</body> </html>
```

---



## **Output :**

Enter three numbers..

127.0.0.1:5500 says

Sorted numbers: 11, 12, 23

7. Write a JavaScript program which compute, the average marks of the following students Then, this average is used to determine the corresponding grade. The grades are computed as follows :

Range	Grade
<60	F
<70	D
<80	C
<90	B
<100	A

```
<html>
<head>
<script>
function myfun(){
var DL = parseFloat(document.f1.n1.value);
var AI = parseFloat(document.f1.n2.value);
var CSS = parseFloat(document.f1.n2.value);
```

```
var IOT = parseFloat(document.f1.n2.value);
var BDA = parseFloat(document.f1.n2.value);
var avg = ((DL+AI+CSS+IOT+BDA)/500)*100;
if (avg < 60) {
    confirm(avg+" is average marks out of 5 subjects and Grade is : F");
} else if (avg < 70) {
    confirm(avg+" is average marks out of 5 subjects and Grade is : D");
} else if (avg < 80) {
    confirm(avg+" is average marks out of 5 subjects and Grade is : C");
} else if (avg < 90) {
    confirm(avg+" is average marks out of 5 subjects and Grade is : B");
} else {
    confirm(avg+" is average marks out of 5 subjects and Grade is : A"); } }
</script>
</head>
<body>
<form name="f1">
<h3>Enter marks of 5 subjects</h3>
<h4> DL</h4>
<input type="number" name="n1">
<h4> AI</h4>
<input type="number" name="n2">
<h4> CSS</h4>
<input type="number" name="n3">
<h4> IOT</h4>
<input type="number" name="n4">
```

```
<h4> BDA</h4>
```

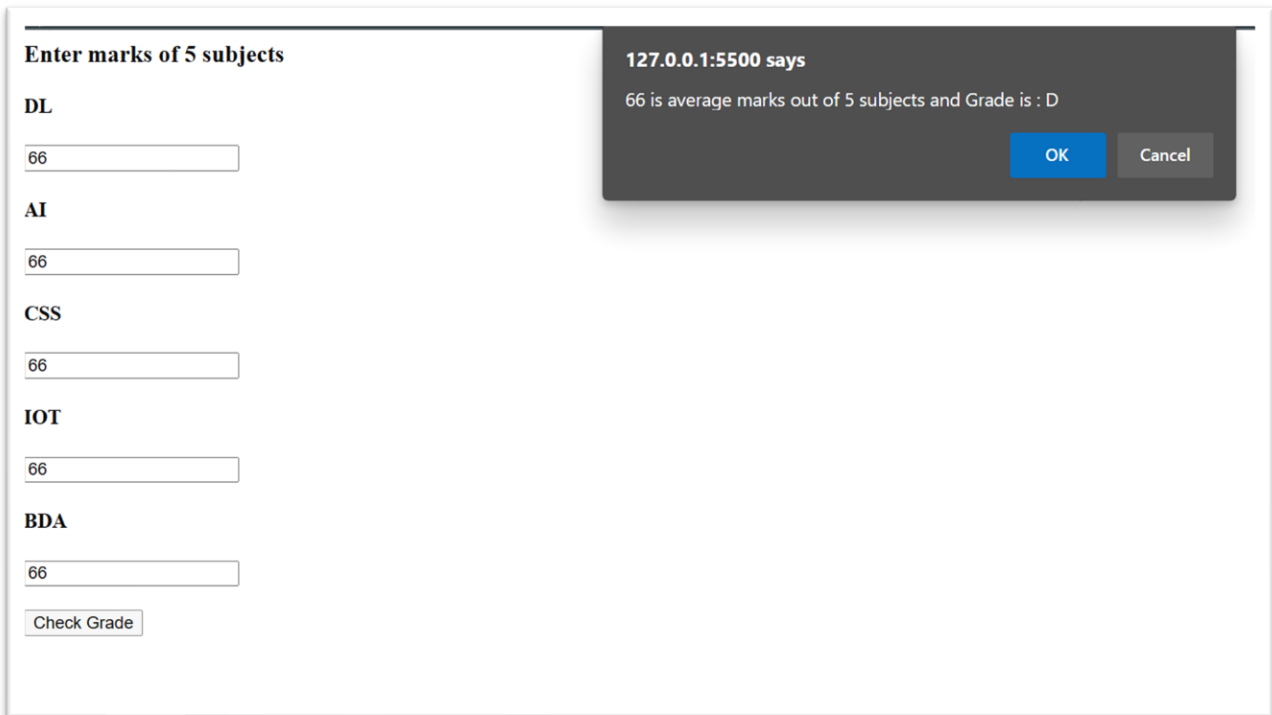
```
<input type="number" name="n5"> <br> <br>
```

```
<input type="button" value="Check Grade" onClick="myfun()">
```

```
</form> </body> </html>
```

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### **Output :**



The screenshot displays a web application interface. On the left, a form titled "Enter marks of 5 subjects" contains five input fields, each preceded by a subject name: DL, AI, CSS, IOT, and BDA. Each input field contains the number "66". Below these fields is a button labeled "Check Grade". On the right side of the form, a dark gray modal dialog box is open. The dialog has a title "127.0.0.1:5500 says" and contains the text "66 is average marks out of 5 subjects and Grade is : D". At the bottom of the dialog are two buttons: "OK" (blue) and "Cancel" (gray).

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