GAURAV TIWARI | MCADS1 | Class roll no. 19 | 10/08/23 |

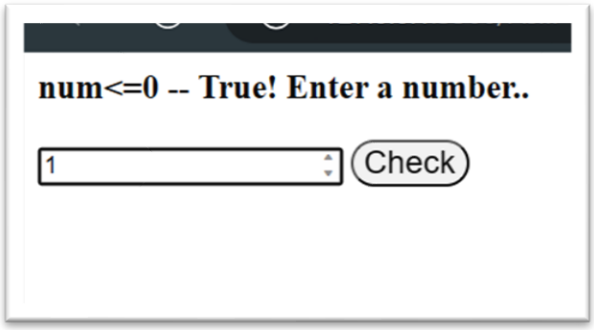
Assignment 1

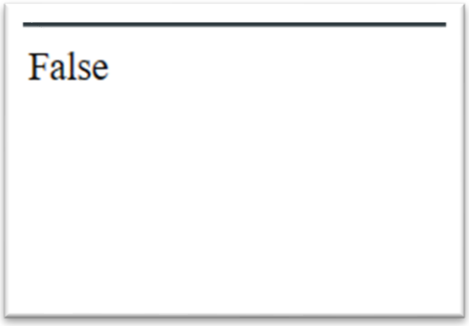
1. Create a function that takes a number as it's only argument and returns true if it is less than or equal to 0,otherwise return false.

```
<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 :





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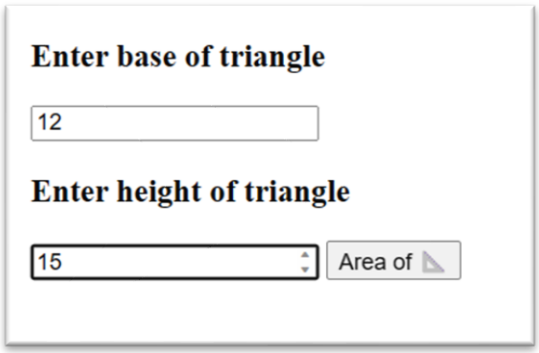
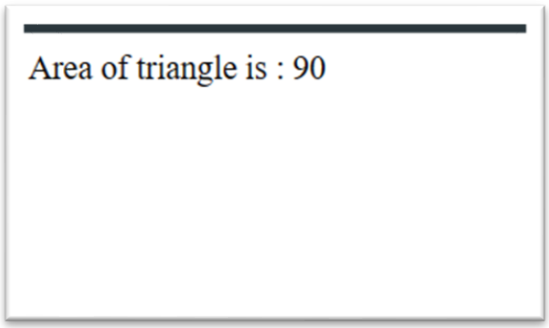
2. Write a JavaScript program to find the area of a triangle.

```
<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 :





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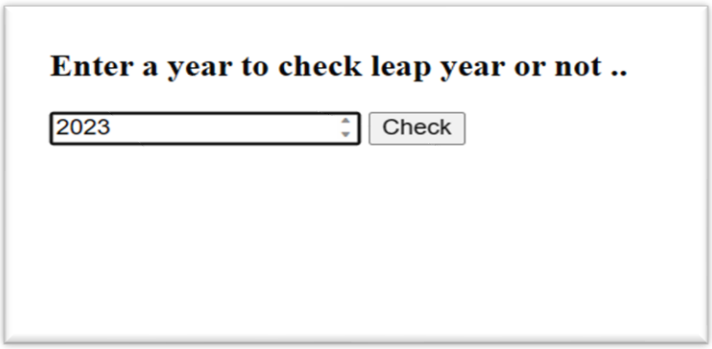
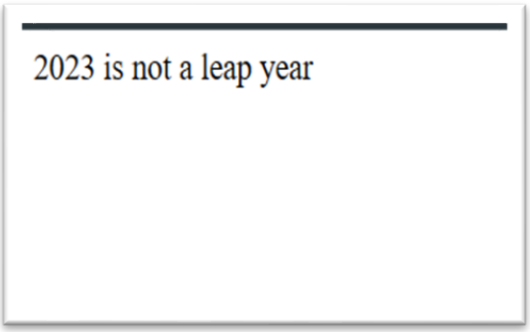
3. Write a JavaScript program to determine whether a given year is a leap year .

```
<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

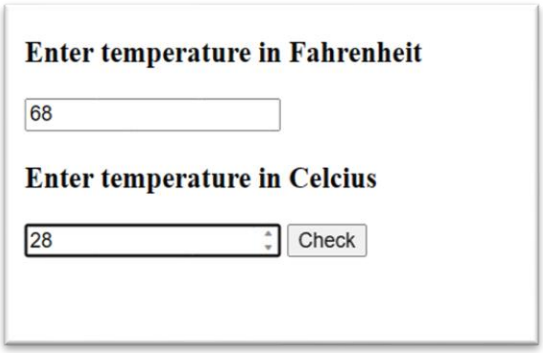


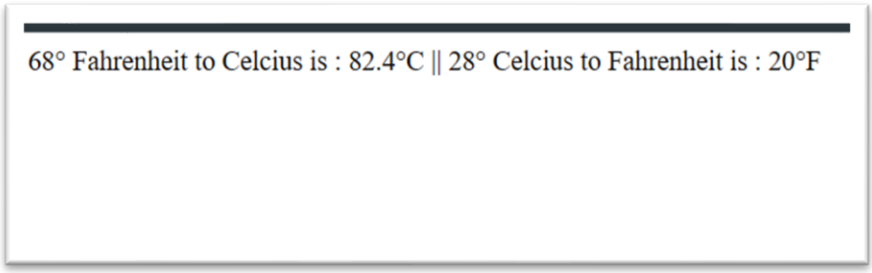


4. Create a function that takes a number as it's only argument and returns true if it is less than or equal to 0,otherwise return false.

```
<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 :





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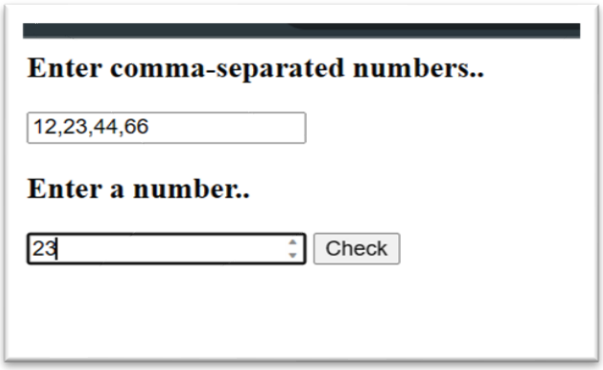
5. Write a JavaScript function that returns array elements larger than a number.

```
<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>
```

Output :



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

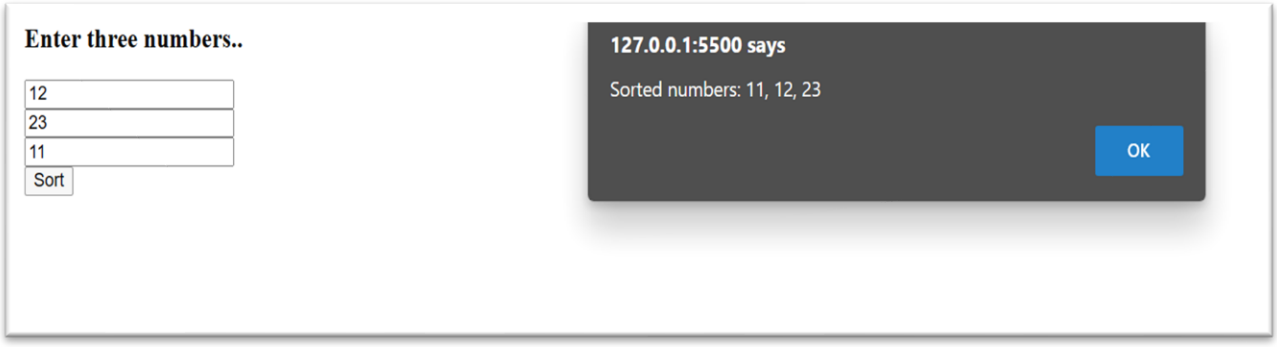
```
<html>
<head>
<script>
  function myfun() {
```

```
        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 :



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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>
```

Output :