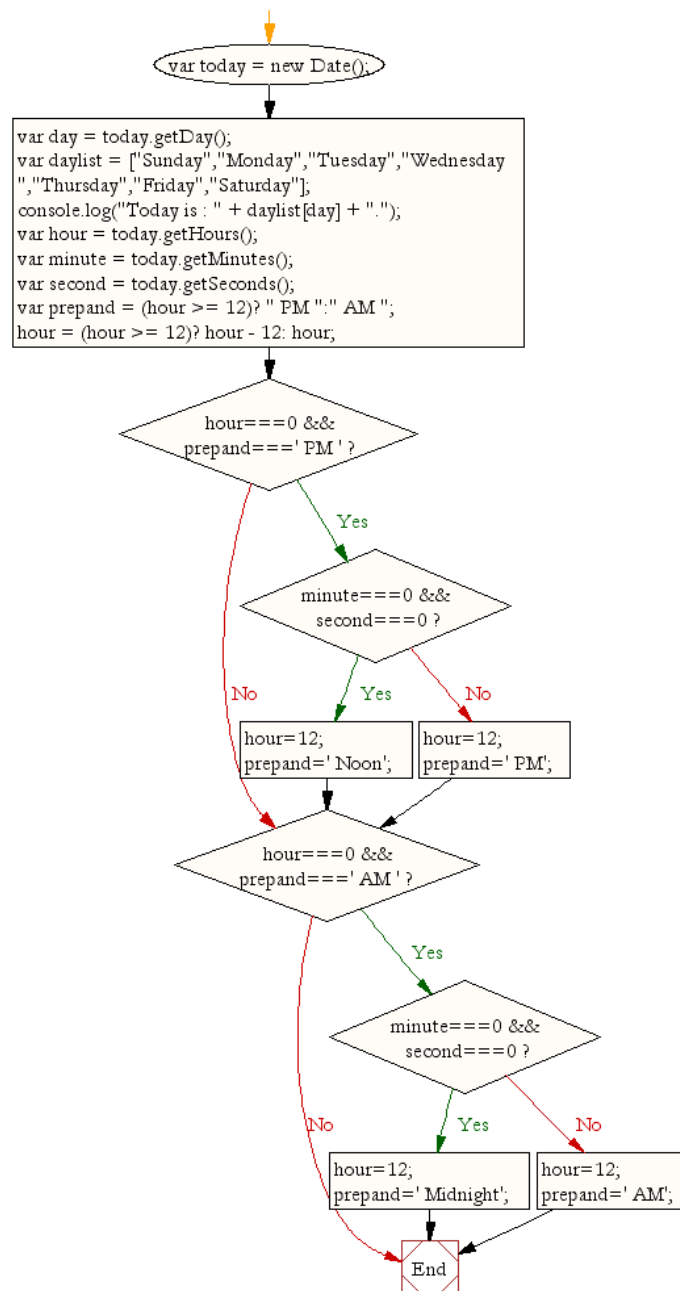## Some Javascript Exercises

1. Write a JavaScript program to display the current day and time in the following format in the console.

Today is : Tuesday.
Current time is : 10 PM : 30 : 38

```
var today = new Date();
```

```
var day = today.getDay();
var daylist = ["Sunday","Monday","Tuesday","Wednesday
","Thursday","Friday","Saturday"];
console.log("Today is : " + daylist[day] + ".");
var hour = today.getHours();
var minute = today.getMinutes();
var second = today.getSeconds();
var prepand = (hour >= 12)? " PM ":" AM ";
hour = (hour >= 12)? hour - 12: hour;
```

hour===0 &&
prepand==='PM' ?

Yes

minute===0 &&
second===0 ?

No   Yes   No

```
hour=12;
prepand=' Noon';
```
```
hour=12;
prepand=' PM';
```

hour===0 &&
prepand==='AM' ?

Yes

minute===0 &&
second===0 ?

No   Yes   No

```
hour=12;
prepand=' Midnight';
```
```
hour=12;
prepand=' AM';
```

End

2. Write a JavaScript program to get the current date. In the following formats:
mm-dd-yyyy,
mm/dd/yyyy,
dd-mm-yyyy,
dd/mm/yyyy

Sample Output:

```
01-09-2018
01/09/2018
09-01-2018
09/01/2018
```

var today = new Date();

var dd = today.getDate();
var mm = today.getMonth()+1;
var yyyy = today.getFullYear();

dd<10 ?

Yes

No   dd='0'+dd;

mm<10 ?

Yes

No   mm='0'+mm;

today = mm+'-'+dd+'-'+yyyy;
console.log(today);
today = mm+'/'+dd+'/'+yyyy;
console.log(today);
today = dd+'-'+mm+'-'+yyyy;
console.log(today);
today = dd+'/'+mm+'/'+yyyy;
console.log(today);

End
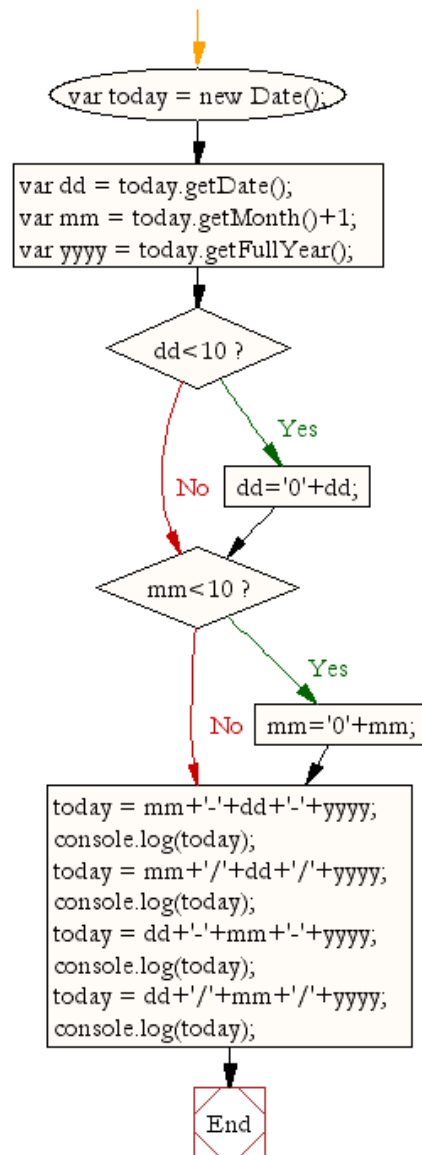
3. Write a JavaScript program where the program takes a random integer between 1 to 10, the user is then prompted to input a guess number. If the user input matches with guess number, the program will display **in the browser** a message "Good Work" otherwise display a message "Not matched".
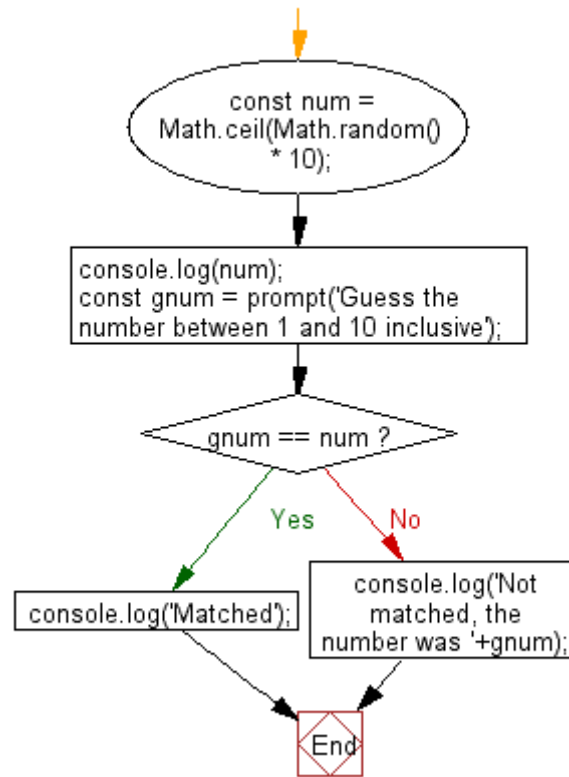
4. Write a JavaScript program to calculate multiplication and division of two numbers (input from user)

1st Number : 12

2nd Number: 10

[Multiply] [Divide]

The Result Is :
120

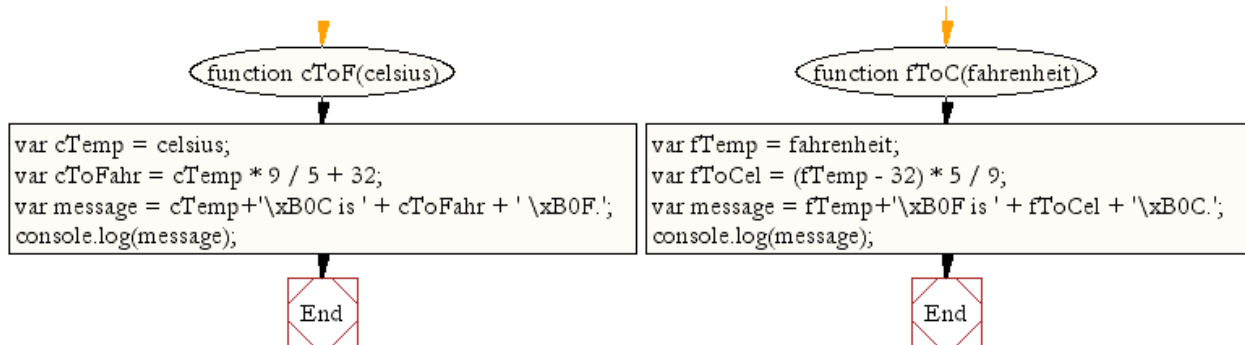Homework:

Change the style to a more interesting style/

5. Write a JavaScript program to convert temperatures to and from Celsius, Fahrenheit.

[Formula : c/5 = (f-32)/9 [where c = temperature in Celsius and f = temperature in Fahrenheit]

Expected Output :
60°C is 140 °F
45°F is 7.222222222222222°C
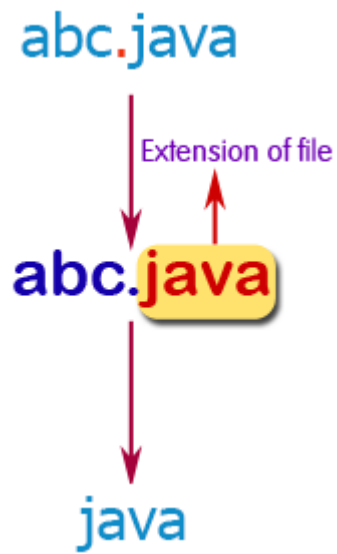

a) Write the program and test it in the console
b) Create a form in the document and show the results in the browser

Centigrad : [12]   Fahrenheit: [   ]

[Convert] [Reset]

The Result is :
12°C is 53.6 °F.

6. Write a JavaScript exercise to get the extension of a filename.

abc.java

Extension of file

abc.java

java

a) Test it in console

b) Get the name in browser and report it in the document

7. Write a JavaScript program to create a new string adding "Py" in front of a given string. If the given string begins with "Py" then return the original string.

"Python"   **"thon"**

Adding "Py" infront

"Py thon"   **"thon"**

String begins with "Py"

"Python"   **"Python"**

function
string_check(str1)

str1 === null || str1
=== undefined ||
str1.substring(0,
2) === 'Py' ?

No   Yes
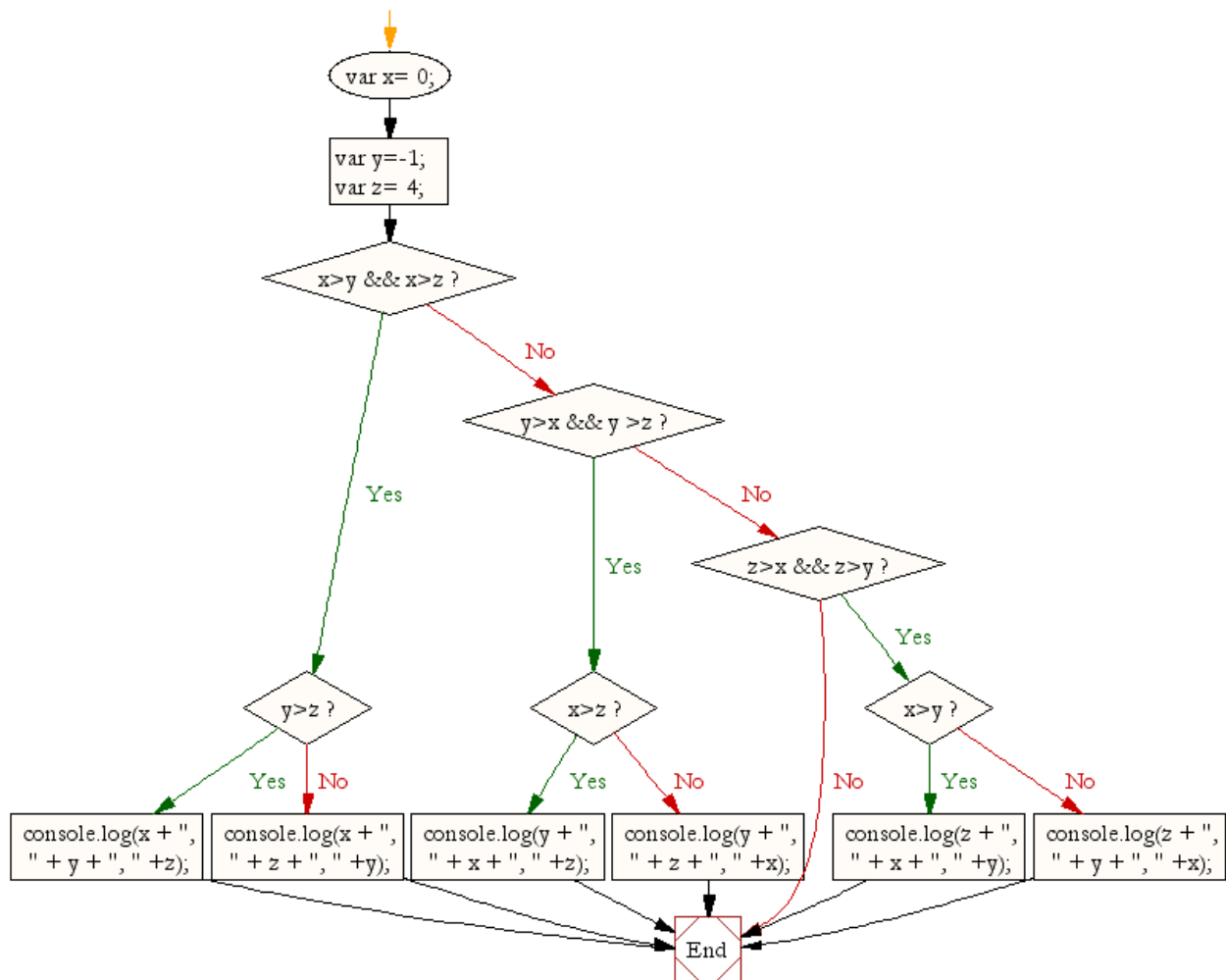
return "Py"+str1;   return str1;

End
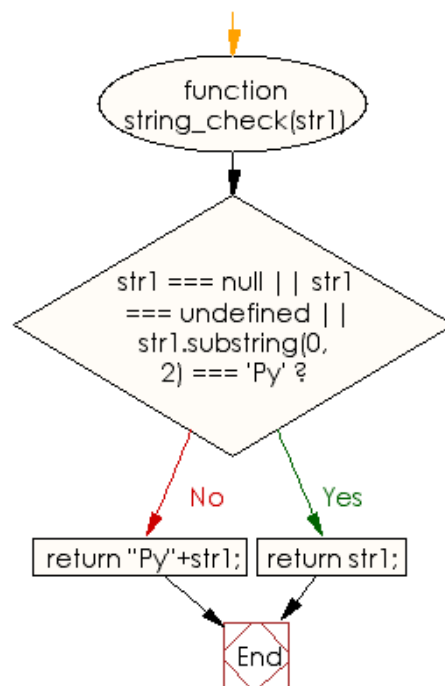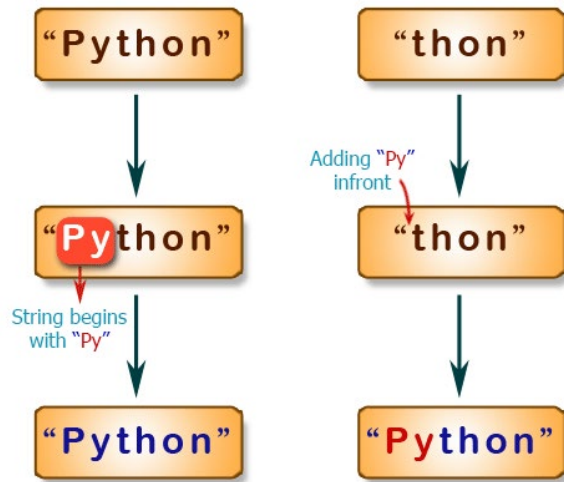
a)   Test it in console

b)   Get the name in browser and report it in the document

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

Sample numbers: 3, -7, 2
Output : -7, 2, 3

```
var x= 0;

var y=-1;
var z= 4;

x>y && x>z ?
   │ Yes                     │ No
   ▼                         y>x && y >z ?
                                │ Yes          │ No
                                ▼              z>x && z>y ?
                                                 │ No    │ Yes
   y>z ?              x>z ?                       x>y ?
 Yes │ No          Yes │ No                    No │ Yes │ No

console.log(x + ",   console.log(x + ",   console.log(y + ",   console.log(y + ",   console.log(z + ",   console.log(z + ",
" + y + "," +z);   " + z + "," +y);   " + x + "," +z);   " + z + "," +x);   " + x + "," +y);   " + y + "," +x);

                                        End
```

a) Test it in console

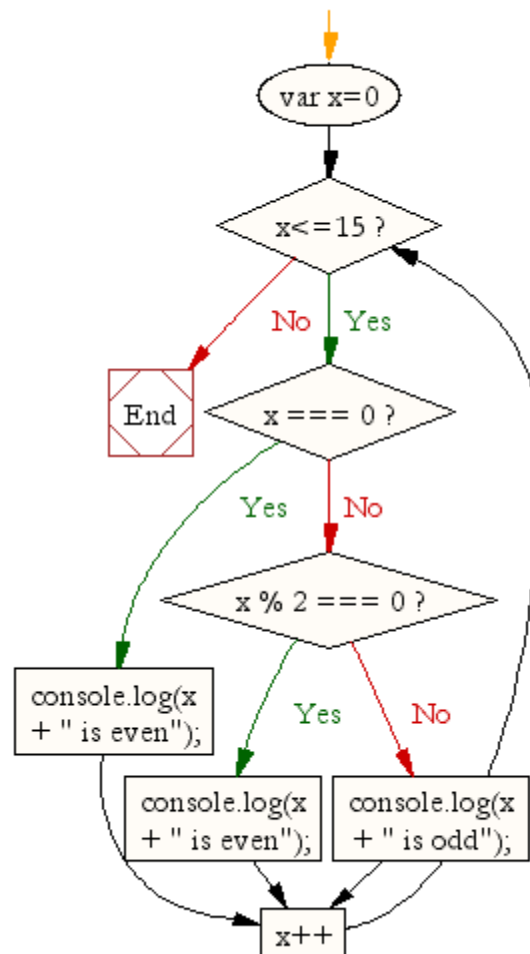b) Get the name in browser and report it in the document

9. Write a JavaScript for loop that will iterate from 0 to 15. For each iteration, it will check if the current number is odd or even, and display a message to the screen.
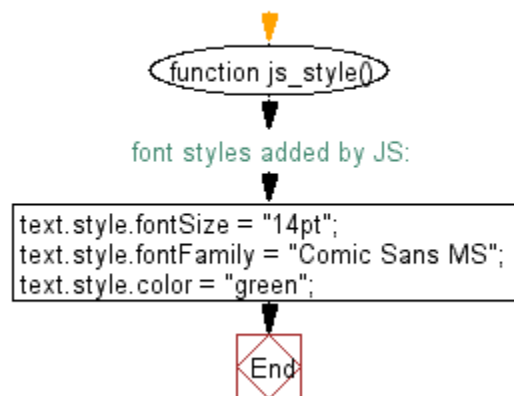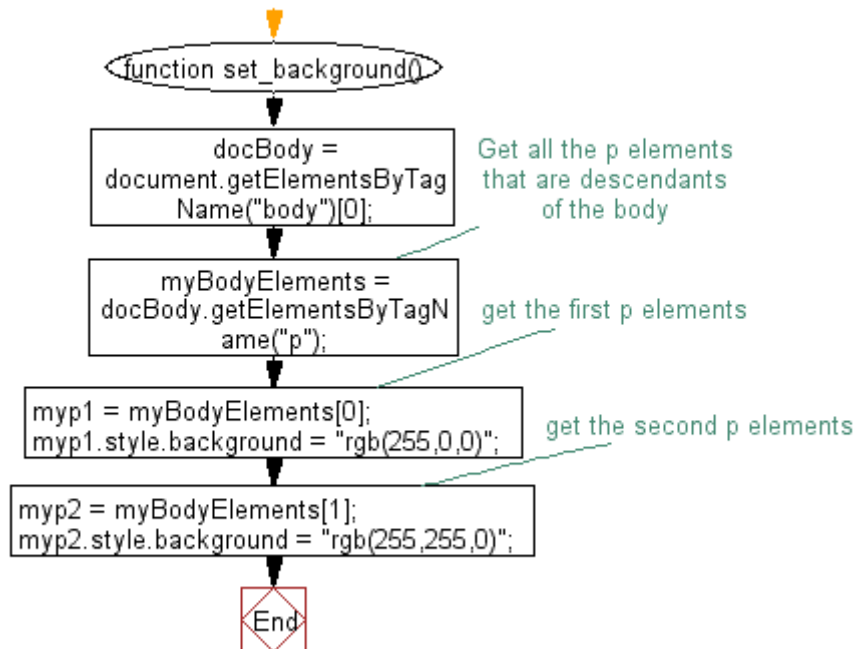
Sample Output:
"0 is even"
"1 is odd"
"2 is even"

```
                              │
                              ▼
                         ( var x=0 )
                              │
                              ▼
                        ╱ x<=15 ? ╲
                       ╱            ╲
                   No ╱              ╲ Yes
                     ▼                ▼
              ┌──────────┐      ╱ x === 0 ? ╲
              │   End    │     ╱              ╲
              └──────────┘    Yes              No
                              │                 │
                              ▼                 ▼
                    ┌──────────────┐    ╱ x % 2 === 0 ? ╲
                    │ console.log(x │   ╱                ╲
                    │ + " is even");│  Yes                No
                    └──────────────┘   │                  │
                                       ▼                  ▼
                              ┌──────────────┐   ┌──────────────┐
                              │ console.log(x │   │ console.log(x │
                              │ + " is even");│   │ + " is odd"); │
                              └──────────────┘   └──────────────┘
                                       │                  │
                                       ▼                  ▼
                                      ┌─────┐
                                      │ x++ │
                                      └─────┘
```

10. Here is a sample html file with a submit button. Now modify the style of the paragraph text through javascript code.

```html
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8" />
    <title>JS DOM paragraph style</title>
  </head>
  <body>
    <p id="text">JavaScript Exercises - w3resource</p>
    <div>
      <button id="jsstyle" onclick="js_style()">Style</button>
    </div>
  </body>
</html>
```
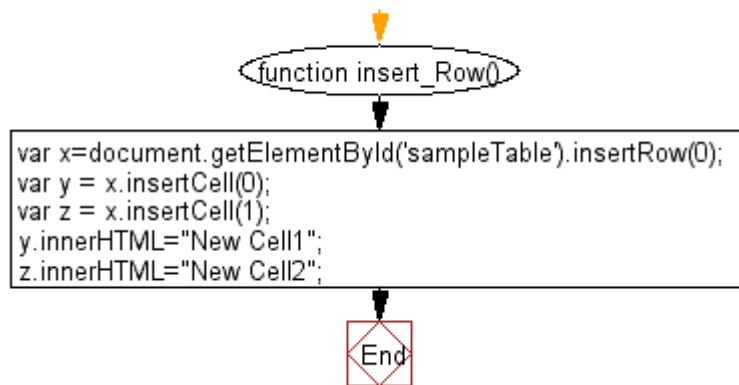
function js_style()

font styles added by JS:

```
text.style.fontSize = "14pt";
text.style.fontFamily = "Comic Sans MS";
text.style.color = "green";
```

End

11. Write a JavaScript program to set the background color of a paragraph.

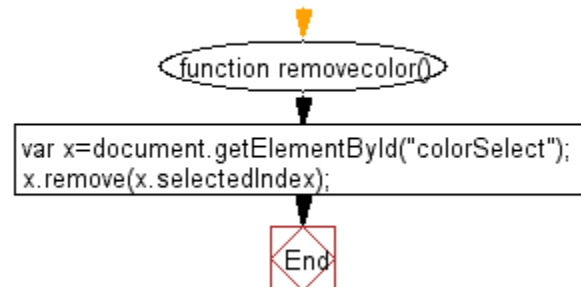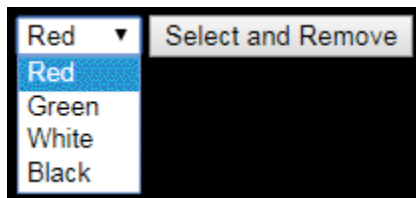**12.**   Write a JavaScript function to add rows to a table.

Sample Output:

Row1 cell1	Row1 cell2
Row2 cell1	Row2 cell2

Insert row

function insert_Row()

```
var x=document.getElementById('sampleTable').insertRow(0);
var y = x.insertCell(0);
var z = x.insertCell(1);
y.innerHTML="New Cell1";
z.innerHTML="New Cell2";
```

End

13.   Write a JavaScript program to remove items from a dropdown list.
Sample Output:

function removecolor()

```
var x=document.getElementById("colorSelect");
x.remove(x.selectedIndex);
```

End

14. Write a JavaScript program to calculate the volume of a sphere.

Sample Output of the form :

Input radius value and get the volume of a sphere.

Radius

Volume

0.0000

Calculate

```
function volume_sphere()

var volume;
var radius = document.getElementById('radius').value;
radius = Math.abs(radius);
volume = (4/3) * Math.PI * Math.pow(radius, 3);
volume = volume.toFixed(4);
document.getElementById('volume').value = volume;
return false;

End
```
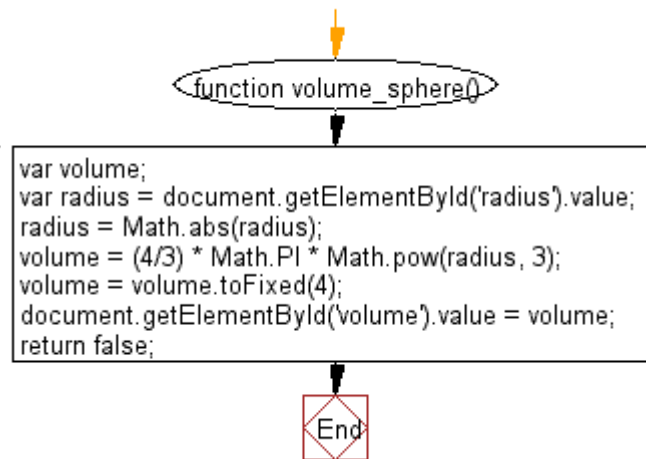
15. Write a JavaScript program to get the width and height of the window (any time the window is resized).

```
function getSize()

var w = document.documentElement.clientWidth;     put the result
var h = document.documentElement.clientHeight;    into a h1 tag

document.getElementById
('wh').innerHTML =
"<h1>Width: " + w + "
â€¢ Height: "
+ h + "</h1>";

End
```