5.Create a function that takes voltage and current and returns the

calculated power.

```
//Program to Create a function that takes voltage and current and returns the calculated power
function power(){
    let voltage=+prompt("Enter the voltage value");
    let current=+prompt("Enter the current value");
    let powerr=voltage*current;
    return powerr;
}
console.log(power()+"watts");
```

Output:

Enter the voltage value:

12

Enter the current value:

2

Power: 24watts

6.Write a function that returns the string "something" joined with a space " " and the given argument a.

```
//Program to Write a function that returns the string "something" joined with a space " " and the given argument a.
function equal(a){
    let c="something ";
    let finalstring=c+a;
    return finalstring;
}
console.log(equal(10));
```

Output:

something 10

7.Create a function that takes two arguments. Both arguments are integers, a and

b. Return true if one of them is 10 or if their sum is 10.

```
//Program to Create a function that takes two arguments. Both arguments are integers, a and b. Return true if one of them is 10 or if their sum is 10.
function add(a,b){
    let test = (a+b===10);
    return test;
}
console.log(add(5,5));
```

Output:

true

8.Create a function that takes two strings as arguments and returns either true or

false depending on whether the total number of characters in the first string is

equal to the total number of characters in the second string.

```
//Program to Create a function that takes two strings as arguments and returns either true or false depending on whether the total number of characters in the first string is equal to the total number of characters in the second string.
function equalstring(a,b){
    let condition=(a.length===b.length);
    return condition;
}
console.log(equalstring("bhanu","bhanu"));
```

Output: true

9.Create a function that takes a name and returns a greeting in the form of a string. Don't use a normal function, use an **arrow function.**

```
//Program to Create a function that takes a name and returns a greeting in the form of a string. Don't use a normal function, use an arrow function.
let greet=(name)=>{
    return `hello ${name}!`;
}
console.log(greet("bhanu"));
console.log(greet("Harshitha"));
```

Output:

hello bhanu!

hello Harshitha!

10. Create a function that takes an array of 10 numbers (between 0 and 9) and returns a string of those numbers formatted as a phone number (e.g. **(555) 555-5555**).

```
// Program to create Create a function that takes an array of 10 numbers (between 0 and 9) and returns a string of those numbers formatted as a phone number (e.g. (555) 555-5555).
function phonenumber(){
    let array=[9,0,1,0,5,5,4,7,8,1];
    array.splice(3,0,"-");
    array.splice(7,0,"-");
    let ton=String(array);
   const modifiedstr= ton.replace(/,/g, '');
console.log(modifiedstr);
}
phonenumber();
```

output: 901-055-4781

11.Create a function that returns an array of strings sorted by length in **ascending** order.

Example:

sortByLength(["a", "ccc", "dddd", "bb"]) ➞ ["a", "bb", "ccc", "dddd"]

```
//Program to find a missing number
let arr=[5,3,1,4];
```

```
let result=[];
let obj={
    5:0,
    3:0,
    1:0,
    4:0,
}
for(i=1;i<=4;i++){
    for(j=0;j<=4;j++){
        count=0;
let f=(i===arr[j])?result+=arr[j]:obj[i]=obj[i]+1;
count++;
}
}
let nankey=null;
for(let key in obj){
    let r=obj[key];
    if(isNaN(r)){
        nankey=key;
        break;
    }
}
console.log(nankey+" is missing");
```

```
//Program to Create a function that returns an array of strings sorted by
length in ascending order. Example: sortByLength["a", "ccc", "dddd", "bb"]) →
["a", "bb", "ccc", "dddd"]
function sortstrings(){
    let a=["a", "ccc", "dddd", "bb"];
    for(i=3;i>1;i--){
      for(j=2;j>0;j--){
      let temp=a[i];
      a[i]=a[j];
      a[j]=temp;
    }
  }
  for(i=3;i==3;i++){
    for(j=2;j==2;j++){
      let temp=a[i];
      a[i]=a[j];
      a[j]=temp;
    }
  }
  console.log(a);
}
sortstrings();
```

Output: [“a”, “bb”, “ccc”, “dddd”]

12. Create a function that takes an array of arrays with numbers. Return a new (single) array with the largest numbers of each.

Example:
findLargestNums([[4, 2, 7, 1], [20, 70, 40, 90], [1, 2, 0]]) ➞ [7, 90, 2]

```
// Create a function that takes an array of arrays with numbers. Return a new (single) array with the largest numbers of each. Example: findLargestNums([[4, 2, 7, 1], [20, 70, 40, 90], [1, 2, 0]]) ➞ [7, 90, 2]
function largest(){
  array=[a=[4,2,7,1],b=[20,70,40,90],c=[1,2,0]];
  let d=[Math.max(...a),Math.max(...b),Math.max(...c)];
  console.log(d);
}
largest();
```

Output: [7, 90, 2]

13. Create a function that takes an array of numbers and returns the **second largest** number.

Example:
secondLargest([10, 40, 30, 20, 50]) ➞ 40

```
// Create a function that takes an array of numbers and returns the second largest number. Example: secondLargest([10, 40, 30, 20, 50]) ➞ 40
function secondl(){
  let a=[10,40,30,20,50];
  let b=[];
  for(i=0;i<=4;){
    for(j=1;j<=4;i++){
    if(a[i]<a[j]){
     b.push(a[j]);
    }else{
      b.push(a[4]);
    }
    j++;
  }
  }
  console.log(Math.min(...b));
}
secondl();
```

Output: 40

14. Create a function that takes an array of items, removes all duplicate items and returns a new array in the same sequential order as the old array (minus duplicates).

Example:
removeDups([1, 0, 1, 0]) ➞ [1, 0]
removeDups(["The", "big", "cat"]) ➞ ["The", "big", "cat"]

```
//Program to Create a function that takes an array of items, removes all duplicate items and returns a new array in the same sequential order as the old array (minus duplicates). Example: removeDups([1, 0, 1, 0]) ➞ [1, 0]
removeDups(["The", "big", "cat"]) ➞ ["The", "big", "cat"]
function removedups(){
  let a=[1,0,1,0];
  let b= ["The", "big", "cat"];
let newarray=[...new Set(a)];
let array=[...new Set(b)];
```

```
console.log(newarray);
console.log(array);
}
removedups();
```

Output: [1, 0]
["The", "big", "cat"]

15.Create a function that takes an array of integers as an argument and returns a unique number from that array. All numbers except unique ones have *the same number of occurrences* in the array.

Example:

findSingleNumber([2, 2, 2, 3, 4, 4, 4]) ➞ 3

```
//Create a function that takes an array of integers as an argument and returns a unique number from that array. All numbers except unique ones have the same number of occurrences in the array. Example: findSingleNumber([2, 2, 2, 3, 4, 4, 4]) ➞ 3
function dups(array){
  var counts={};
  for(i=0;i<a.length;i++){
    var element=array[i];
    if(counts[element]){
      counts[element]=counts[element]+1;
    }else{
      counts[element]=1;
    }
  }
  for(var key in counts){
    if(counts[key]===1){
      console.log(key);
  }
}
}
let a=[2,2,2,3,4,4,4];
dups(a);
```

Output: 3

16.Create a function that takes two strings as arguments and returns the number of times the first string (the single character) is found in the second string.

Example:

charCount("c", "Chamber of secrets") ➞ 1

```
//Create a function that takes two strings as arguments and returns the number of times the first string (the single character) is found in the second string. Example: charCount("c", "Chamber of secrets") ➞ 1
function character(){
  let a="c";
  let b="Chamber of secrets";
  let d=/chamber of secrets/i;
  let f=b.match(d);

  let c=[a,f];
  for(i=0;i<c.length;i++){
```

```
    if(a[i]===f[i]){
      console.log(i);
  }
}
}
character();
```

Output: 1

17.Create a function that takes a string and returns the number (count) of vowels contained within it.

Example:

countVowels("Celebration") ➞ 5

```
//Create a function that takes a string and returns the number (count) of
vowels contained within it. Example: countVowels("Celebration") ➞ 5
function vowels(array){
  let counts={
    a:0,
    e:0,
    i:0,
    o:0,
    u:0,
    }
  for(i=0;i<array.length;i++){
    var element=array[i];
    if(counts[element]!=undefined){
      counts[element]=counts[element]+1;
    }
  }
  let sum=0;
  for(let key in counts){
    sum=sum+counts[key];
  }
  return sum;
}
let e="Celebration";
let b=e.split("");
console.log(vowels(b));
```

Output: 5;

18.Given a string, create a function to reverse the case. All lower-cased letters should be upper-cased, and vice versa.

Example:

reverseCase("Happy Birthday") ➞ "hAPPY bIRTHDAY"

```
function uppercase(a){
  let g="";
  for(i=0;i<a.length;i++){
    let d=(a[i].charCodeAt(0));
if(d>=65&&d<=90){
   g=g+a[i].toLowerCase(i);
}else{
  g=g+a[i].toUpperCase(i);
```

```
}
}
return g;
}
let t="Happy Birthday";
console.log(uppercase(t));
```

Output: hAPPY bIRTHDAY

19: Take one integer n, loop till n and pass each value to a function, create a function that takes one integer parameter, and multiply with 2 in every integer.

Input: n=5

Output: 2 4 6 8 10

```
//Take one integer n, loop till n and pass each value to a function, create a function that takes one integer parameter, and multiply with 2 in every integer. Input:n=5 Output:   2 4 6 8 10
function looping(n){
  for(i=0;i<=n;i++){
     b=i*2;
     console.log(b);
  }
}
looping(5);
```

Output: 0 2 4 6 8 10

20.Create Function that will take one parameter and return type of the data.

```
//Create Function that will take one parameter and return type of the data.
function datatype(n){
  let a=1;
  let result=(typeof(n)===typeof(a))?"Integer":"String";
  return result;
}
console.log(datatype(5));
```

Output: Integer

21.Program to find greatest of three numbers(using ternery operator).

Input: 4 8 2

Output: 8 is gretest

```
//Program to find greatest of three numbers(using ternery operator).
function greatest(a,b,c){
  let result=(a>=b&&a>=c)?a:(b>=c&&b>=a)?b:(c>=a&&c>=b)?c:false;
  console.log(`${result} is greatest`);
}
greatest(4,8,2);
```

Output:: 8 is gretest

22.Program to find factorial of number.

Input: n=5

Output: 120

```
//Program to find factorial of number. Input: n=5 Output: 120
function factorial(n){
  let result=1;
  for(i=1;i<=n;i++){
    result=result*i;
```

```
  }
  return result;
}
console.log(factorial(5));
```

Output: 120

23.Program to arrange numbers in ascending order Sort the Array using loop only(you cannot use predefined function).

Input: [2,3,1,5,4]

Output: [1,2,3,4,5]

```
//Program to arrange numbers in ascending order
function arrange(){
  let a=[2,3,1,5,4];
  let swapped;
  do{
    swapped=false;
  for(i=0;i<a.length;i++){
  if(a[i]>a[i+1]){
    let temp=a[i];
    a[i]=a[i+1];
    a[i+1]=temp;
    swapped=true;
  }
}
  }while(swapped);
return a;
}
console.log(arrange());
```

Output: [1,2,3,4,5]

24.Print Patter using loop.

1
1 2
1 2 3
1 2 3 4
1 2 3 4 5

```
//Print Patter using loop.
function pattern(n){
    let string="";
    for(i=1;i<=n;i++){
        for(j=1;j<=i;j++){
            string=string+j;
        }
        string=string+"\n";
    }
    return string;
}
console.log(pattern(5));
```

Output:

1
1 2

1 2 3
1 2 3 4
1 2 3 4 5

25.Program to Calculate the Power of a Number(using loop only).

Input: n=5, p=3
Output: 5 ^ 3 = 125
Explanation: 5 x 5 x 5 = 125

```
//Program to Calculate the Power of a Number(using loop only).
function powerl(n,p){
    let result=1;
for(j=1;j<=p;j++){
    result=result*n;
}
return result;
}
console.log(powerl(5,3));
```

Output: 125

26. Program to Check Whether a Number is Prime or Not

```
//Program to Check Whether a Number is Prime or Not
function prime(n){
    if(n<2){
        return false;
    }
    let sqrt=Math.sqrt(n)
    for(i=2;i<=sqrt;i++){
        if(n%i===0){
            return false;
        }
    }
    return true;
}
console.log(prime(9));
```

Output: 7 is a prime number

28. Program to Display Characters from A to Z Using Loop with count.Output: A1 B2 C3 D4 E5 F6 ……. Z26

```
//Program to Display Characters from A to Z Using Loop with count.
function alphabets(a){
    let result=" ";
    count=0;
    for(i=0;i<=a.length-1;i++){
        if(a[i]!==" "){
        result+=a[i]+i+" ";
        }
        count++;
    }
    console.log(result);
}
alphabets(" ABCDEFGHIJKLMNOPQRSTUVWXYZ");
```

Output: A1 B2 C3 D4 E5 F6 G7 H8 I9 J10 K11 L12 M13 N14 O15 P16 Q17 R18 S19 T20 U21 V22 W23 X24 Y25 Z26

29.Program to find a missing number

Input: n=5(length of array), arr= [5,3,1,4]

Output: 2 is missing

```
//Program to find a missing number
let arr=[5,3,1,4];
let result=[];
let obj={
    5:0,
    3:0,
    1:0,
    4:0,
}
for(i=1;i<=4;i++){
    for(j=0;j<=4;j++){
        count=0;
let f=(i===arr[j])?result+=arr[j]:obj[i]=obj[i]+1;
count++;
}
}
let nankey=null;
for(let key in obj){
    let r=obj[key];
    if(isNaN(r)){
        nankey=key;
console.log(nankey+" is missing");
        break;
    }
}
```

Output: 2 is missing

Another way with method

```
//Program to find a missing number
function lengthar(){
    let arr=[5,3,1,4];
    let result=[];
    for(i=1;i<=arr.length;i++){
            if(arr.includes(i)){
                result+=arr[i]+",";
            }else{
                console.log(i+"is missing");
            }
    }
}
lengthar();
```

Output: 2 is missing

Bulb on or off using DOM

```
<!DOCTYPE html>
<html>
```

```
<head>
  <title>On and Off Bulb</title>
  <style>
    #bulb{
        height:"500px";
        width:"500px";
    }
   button{
    height:50px;
    width:150px;
   }
  </style>
</head>
<body>
  <img id="bulb"
src="https://i.pinimg.com/originals/77/6a/30/776a3077389d21a1669a02a15acaa777.
jpg" alt="Bulb" onclick="toggleBulb()">
  <button onclick="toggleBulb()">on/off</button>
  <script>
    let isBulbOn = false;

function toggleBulb() {
  const bulbImage = document.getElementById('bulb');

  if (isBulbOn) {
    bulbImage.src =
'https://i.pinimg.com/originals/77/6a/30/776a3077389d21a1669a02a15acaa777.jpg'
;
    bulbImage.style.height = "500px";
  bulbImage.style.width = "500px";
  } else {
    bulbImage.src = 'https://static.independent.co.uk/s3fs-
public/thumbnails/image/2016/01/11/17/15-light-bulb-rex.jpg?width=1200';
    bulbImage.style.height = "500px";
  bulbImage.style.width = "500px";
  }

  isBulbOn = !isBulbOn;
}

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

Table color change

```
<!DOCTYPE html>
<html>
<head>
  <title>On and Off Bulb</title>
```

```
  <style>
    table{
        height: 300px;
        width: 350px;
    }
    table,td{
        border: 2px solid black;
    }
  </style>
</head>
<body>
    <table>
        <tr>
            <td class="table-data">Name</td>
            <td class="table-data">Mobile</td>
            <td class="table-data">email</td>
            <td class="table-data">graduation</td>
        </tr>
        <tr>
            <td class="a">Bhanu Harshitha</td>
            <td class="b"><b>6548785580</b></td>
            <td class="b"><b>bhanuvakalapudi@gmail.com</b></td>
            <td class="b"><b>2023</b></td>
        </tr>
        <tr>
            <td class="a">college</td>
            <td class="b"><b>Row 3, Cell 2</b></td>
            <td class="b"><b>Row 3, Cell 3</b></td>
            <td class="b"><b>Row 3, Cell 4</b></td>
        </tr>
        <tr>
            <td class="a">Row 4, Cell 1</td>
            <td class="c">Row 4, Cell 2</td>
            <td class="c" >Row 4, Cell 3</td>
            <td class="c" >Row 4, Cell 4</td>
        </tr>
    </table>
    <button onclick="colorchange()">click me</button>
  <script>
    let color=false;
    function colorchange(){
        if(color){
            let result=document.querySelectorAll(".table-data");
result.forEach(function(element){
    element.style.backgroundColor="black";
});
let point=document.querySelectorAll(".a");
point.forEach(function(element){
```

```
    element.style.backgroundColor="black";
});
let third=document.querySelectorAll(".b");
third.forEach(function(element){
    element.style.color="white";
    element.style.backgroundColor="black";
});
let fourth=document.querySelectorAll(".c");
fourth.forEach(function(element){
    element.style.color="white";
    element.style.backgroundColor="black";
});
        }else{
            let result=document.querySelectorAll(".table-data");
result.forEach(function(element){
    element.style.backgroundColor="green";
});
let point=document.querySelectorAll(".a");
point.forEach(function(element){
    element.style.backgroundColor="red";
});
let third=document.querySelectorAll(".b");
third.forEach(function(element){
    element.style.color="blue";
    element.style.backgroundColor="aqua";
});
let fourth=document.querySelectorAll(".c");
fourth.forEach(function(element){
    element.style.color="blue";
    element.style.backgroundColor="purple";
});
        }
        color=!color;
    }
  </script>
</body>
</html>
```

30. Program to count vowels and consonants in a given String

```
<!DOCTYPE html>
<html>
    <head>

    </head>
    <body>
        <script>
            let vowels=0;
            let consonants=0;
            function countvandc(a){
```

```
for(i=0;i<a.length;i++){
    let b=a.charAt(i).toLowerCase();
    let result=(b=="a"||b=="e"||b=="i"||b=="o"||b=="u")?vowels++:(b!="
")?consonants++:null;
}
console.log(vowels+" vowels");
console.log(consonants+" consonants");
}
countvandc("iam ram")
        </script>

    </body>
</html>
```

Output:
3 vowels
3 consonants

31. program to insert the elements of an array for specific index.

```
function insert(a){
                for(i=0;i<a.length;i++){
                    if(i==5){
                        a.splice(i,0,6)
                    }
                }
                console.log(a);
            }
            insert([1,2,3,4,5,7,8,9,10])
```

output: [1,2,3,4,5,6,7,8,9,10]

32. Reverse a number using while Loop

```
function reverse(a) {
    let result="";
    let i=2;
    while(i>=0){
            result=result+a.charAt(i);
        i--;
    }
    console.log(result);
}
reverse("123"); // Output: "321"
```

33. Count occurrence of number:

```
function occurance(a){
                let obj={}
                for(i=0;i<a.length;i++){
                    let element=a[i]
                    let
result=(obj[element])?obj[element]=obj[element]+1:obj[element]=1;
            }
            for(let key in obj){
                if(obj[key]>1){
                    console.log(key+" present "+obj[key]+" times")
```

```
                }
            }
            }
            occurance([1,6,3,1,5,9,7,2,1,9,3,7,8,9,10])
```

Output:
1 present 3 times
3 present 2 times
7 present 2 times
9 present 3 times

Lists add and remove using DOM

```
<!DOCTYPE html>
<html>
    <head>
        <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css
">
    </head>
    <body>
        <div class="container mt-4">
            <button class="btn btn-primary mr-3" onclick="listchange()">Add
List</button>
            <button class="btn btn-danger" onclick="alllist()">Remove all
list</button>
            <ul id="unorderedlist" class="list-group mt-4"></ul>
        </div>
        <script>
            function alllist(){
                let ul=document.getElementById("unorderedlist");
                ul.remove();
            }
            function listchange(){
                let newlist=document.createElement("li");
                let button=document.createElement("button");
                let count=document.getElementsByTagName("li").length+1;
                let ul=document.getElementById("unorderedlist");
                newlist.textContent="list "+count;
                newlist.style.color="red";
                newlist.style.fontSize="30px"
                button.textContent="remove";
                button.style.border="7px solid black";
                button.className = "btn btn-dark ml-3";
                button.onclick=function(){
                    button.parentElement.remove();
                }
                newlist.appendChild(button);
                ul.appendChild(newlist);
```

```
                }

        </script>
        <script src="https://code.jquery.com/jquery-
3.5.1.slim.min.js"></script>
        <script
src="https://cdn.jsdelivr.net/npm/@popperjs/core@2.9.1/dist/umd/popper.min.js"
></script>
        <script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js"><
/script>

    </body>
</html>
```