Solutions For Mathematical Logical Questions

Q-1.

Solution :

Using For Loop :

```
<script type = "text/javascript">
function fibonacci(num)
{
    var num1=0;
    var num2=1;
    var sum;
    var i=0;
    for (i = 0; i < num; i++)
    {
        sum=num1+num2;
        num1=num2;
        num2=sum;
    }
    return num2;}
document.write("Fibonacci(5): "+fibonacci(5)+"<br>");
document.write("Fibonacci(8): "+fibonacci(8)+"<br>");
</script>
```


Using While Loop :

```
<script type = "text/javascript">
function fibonacci(num)
    {
        if(num==1)
            return 0;
        if(num==2)
            return 1;
        var num1=0;
        var num2=1;
        var sum;
        var i=2;
        while (i<num)
        {
            sum=num1+num2;
            num1=num2;
            num2=sum;
            i+=1;
        }
        return num2;
```

```
    }
document.write("Fibonacci(5): "+fibonacci(5)+"<br>");
document.write("Fibonacci(8): "+fibonacci(8)+"<br>");
</script>
```

Using Recursion :

```
<script type = "text/javascript">
function fibonacci(num)
{
if(num==1)
return 0;
if(num==2)
return 1;
var num1=0;
var num2=1;
var sum;
var i=2;
while (i<num)
{Array Logical Questions in Javascript Solution
```



```
Q-1.
Solution :
<script>
function calSumUtil(a, b, n, m)
{
// array to store sum. let sum = new Array(n);
let i = n - 1, j = m - 1, k = n - 1; let carry = 0, s =
0;
// Until we reach beginning of array. we are comparing
only for second array
// because we have already compare the size of array in
wrapper function. while (j >= 0) {
// find sum of corresponding element of both arrays. s =
a[i] + b[j] + carry;
sum[k] = (s % 10);
// Finding carry for next sum. carry = Math.floor(s /
10);
k--;
i--;
j--;
}
// If second array size is less the first array size.
while (i >= 0) {
// Add carry to first array elements. s = a[i] + carry;
```

```
for(i = 2; i <= n - 1; i++)
if (n % i == 0) {
flag = false;
break;
}

// Check and display alert message
if (flag == true)
alert(n + " is prime");
else
alert(n + " is not prime");
}
</script>
```

Q-3.
Solution :

```
<script>
        var up = document.getElementById('GFG_UP');
        var down =document.getElementById('GFG_DOWN');
        var n = 5;
up.innerHTML = "Click on the button to calculate"
            + " the factorial of n.<br>n = " + n;

        function Factorial(n) {
            var ans=1;

            for (var i = 2; i <= n; i++)
                ans = ans * i;
            return ans;
        }

        function GFG_Fun() {
            down.innerHTML = Factorial(n);
        }
    </script>
```

Q-4.
Solution :

```
<script>
function checkPalindrome(n)
{
    let reverse = 0;
    let temp =  n;
    while (temp != 0) {
```

```
        reverse = (reverse * 10) + (temp % 10);
        temp = Math.floor(temp / 10);
    }
    return (reverse == n); // if it is true then it
will return 1;
                    // else if false it will return 0;
}
// driver code
let n = 7007;
if (checkPalindrome(n) == 1) {
    document.write("Yes","</br>");
}
else {
    document.write("No","</br>");
}
</script>
```

Q-5.
Solution :

```
<script>
let MAX = 100;
// function for calculating frequency
function freq(ar,m,n) {
    let even = 0, odd = 0;
    for (let i = 0; i < m; ++i)
    {
        for (let j = 0; j < n; ++j)
        {
            // even and odd
            if ((ar[i][j] % 2) == 0)
                ++even;
            else
                ++odd;
    }
    }
    // print Frequency of numbers
    document.write(" Frequency of odd number =" +
                    odd + " <br>");
    document.write(" Frequency of even number = " +
                    even + "<br>");
}
// Driver code
    let m = 3, n = 3;
    let array = [[1, 2, 3], [4, 5, 6], [7, 8, 9]];
    freq(array, m, n);
```

```
</script>
```