1)Write a JavaScript program to find the largest of three given numbers.

```
// largest number//


const num=12;
const num1=15;
const num2=10;

if ( num>num1 && num>num2){
   console.log(`largest number is : ${num}`)
}
else if (num1>num && num1>num2){
   console.log(`largest number is : ${num1}`)
}
else{
   console.log(`largest number is : ${num2}`)
}
```

2)Create a JavaScript program that checks whether a given year is a leap year or not. Leap years are divisible by 4, except for years that are divisible by 100 but not divisible by 400. Implement this logic using if-else if statements and print the result accordingly.

```
// leap year//

let year = require("readline-sync");
year = year.questionInt("Enter the  number:-")


if (year%100==0){
   if (year%400==0){
       console.log("this is leap year")
   }
   else{
       console.log("this is not leap year")
```

```
    }
}
else if (year%4==0){
    console.log("this is leap year")
}
else{
    console.log("this is not leap year")
}
```

3)Write a JavaScript program to calculate the number of days in a given month. The program should take the month number and the year as input and display the number of days in that month. For example, if the user enters 2, the program should display "28" (assuming it's not a leap year). If the month number is less than 1 or greater than 12, print the appropriate error message. Use switch case to implement this.

```
// switch cases//

let years = require("readline-sync");
years= years.questionInt("Enter the  number:-")

switch(years){
    case 1:
        console.log("31");
        break
    case 2:
        console.log("28");
        break
    case 3:
        console.log("31");
        break
     case 4:
        console.log("30");
        break
    case 5:
        console.log("31");
        break
    case 6:
        console.log("30");
        break
    case 7:
```

```
        console.log("31");
        break
    case 8:
        console.log("31");
        break
    case 9:
        console.log("30");
        break
    case 10:
        console.log("31");
        break
    case 11:
        console.log("30");
        break
    case 12:
        console.log("31");
        break
    default:
        console.log(" it is not valid")
}
```

4)Write a JavaScript program to display the odd numbers between 1 and 10 using the for loop.

```
for (let i=1;i<=10;i++){
    if(i%2!=0){
        console.log("odd number",i)
    }

}
```

5)Write a JavaScript program to calculate the sum of all the elements in an array using the for…of loop.

```
// Sum of all element

const sum = [1,2,3,4,5,6,7,8,9,10,11,12];
```

```
let a=0;
for (let i of sum){
   a+=i
}
console.log(a)
```

6)Write a JavaScript program to display the properties of an object using the for...in loop and the values of the properties using the for...of loop.

```
//for in loop

const obj={name:"Anjali",age:20}
for (let i in obj){
   console.log(i)
   console.log(obj[i])
}
```

7)Write a JavaScript program to create a new array containing only the even numbers from an existing array using the for…of loop.

```
const arr = [1,2,3,4,5,6,7,8,9,10];
const arr1=[];
for (let i of arr){
   if (i%2==0){
       arr1.push(i)
   }
}
console.log(arr1)
```

8)Write a program that calculates the sum of all even numbers between 1 and 500. Use a do…while loop to accomplish this.

```
// do while loop

let i=0;
let sum1=0;
do{
   if (i%2==0){
       sum1+=i;
   }
```

```
   i++
}while (i<=500);
console.log(sum1);
```