Assignment-2

Assignment 2

1. Solution

```
let n = 9;

function checkNumber(num){
    if(n==0) return "zero"
    if(n>0) return "positive"
    if(n<0) return "negative"
}

const result = checkNumber(n);
console.log(`Entered Number is ${result}`)
```

2. Solution

```


let n = 5

function findFactorial(num) {

    if (num === 0) return 1;
    let fact = 1;
    for (let i = 1; i <=num; i++) {
        fact = fact * i;
    }
    return fact;
}



const result = findFactorial(n)//5->120

console.log(result)//120
```

3. Solution

```
let a=43,b=12;

function largestNumber(a,b){
    return a>b ? a :b;

}


console.log(largestNumber(a,b))//12
```

4. Solution

```
let isPalindromeString = "gfg"  // "gfg", "lol"

function checkPalindromeString(str){

if (str === str.split("").reverse().join("")) return true

return false
}

console.log(checkPalindromeString(isPalindromeString))//true
```

5.Solution

```
let number = 35


function isPrimeNumber(num) {
    if (num === 2) return true;
    if (num % 2 === 0) return false;
    for (let i = 2; i < num; i++) {
        if (num % i == 0) return false
    }
    return true

}

function printAllPrimeNumberUptoN(n){
    for(let i =2;i<n;i++) {
        if(n===1) break;
        if (isPrimeNumber(i)) {
            console.log(i)
        }
```

```
    }

}

printAllPrimeNumberUptoN(number)
```

6. Solution

```
function calculator(a,b,operator){
    if(operator=='+') return a+b;
    if(operator=='-') return a-b;
    if(operator=='*') return a*b;
    if(operator=='/') return a/b;
    if(operator=='%') return a%b;

}

console.log(calculator(2,3,'*'))//6
console.log(calculator(2,3,'+'))//5
console.log(calculator(2,3,'-'))//-1
console.log(calculator(2,3,'/'))//0.6666666666
console.log(calculator(10,3,'%'))// 1
```

7. Solution

```
function countVowel(str){
    let count = 0;
    let strArray = str.split("");
    for(let i=0;i<strArray.length;i++){
        if(
            strArray[i]==='a' || strArray[i]==='A' ||
            strArray[i]==='e' || strArray[i]==='E' ||
            strArray[i]==='i' || strArray[i]==='I' ||
            strArray[i]==='o' || strArray[i]==='O' ||
            strArray[i]==='u' || strArray[i]==='U'


            ) {
           ++count
        }
    }
```

```
    return count;
}


console.log(countVowel("Amresh"))//2
console.log(countVowel("Ashish"))//2
console.log(countVowel("Shubhangi"))//3
console.log(countVowel("Abhiuday"))//4
console.log(countVowel("Vedant"))//2
```

8. Solution

```
//perfect Square or not - 6, 28, 496, 8128
// 28 ---> 1,2,4,7,14,   28(exclude)
// 1+2+4+7+14 =28


function isPerfectNumber(num){
let factorSum = 0;
for(let i = 1;i<num;i++){
    if(num%i===0) factorSum +=i;
}

if(factorSum === num) return true;

return false;


}


console.log(isPerfectNumber(28)) //true
console.log(isPerfectNumber(128)) // false
console.log(isPerfectNumber(496)) //true
```

9. Solution

```
// fibonacci

function fibonacciSeries(n) {

    let f1 = 0, f2 = 1;
```

```
    let nextF = f1 + f2;
    console.log(f1)
    console.log(f2)
    for (let i = 3; i <= n; i++) {
        console.log(nextF)
        f1 = f2;
        f2 = nextF;
        nextF = f1 + f2

    }

}

fibonacciSeries(5) // 0 1 1 2 3
console.log()
fibonacciSeries(15) // 0 1 1 2 3 5,8,13,21,34,55,89,144,233,377
```

10. Solution

```
// table

function printTableUpto10(num){

    for(let i =1; i<=10;i++) {
        console.log(i*num)
    }
}


printTableUpto10(5)
console.log()
printTableUpto10(15)
console.log()
printTableUpto10(25)
```