5) Counting Vowels and Consonants :

function VowcountsAndConscounts(str) {

let vowCount = 0;

let consCount = 0;

str = str.toLowerCase();

for (let i = 0; i < str.length; i++) {

let y = str[i];

if (y == "a" || y == "e" || y == "i" || y == "o" || y == "u") {

vowCount++;

} else if (y >= "a" && y <= "z") {

consCount++;

}

}

return { vowels: vowCount, consonants: consCount };

}

let result = VowcountsAndConscounts("HELLO WORLD!");

console.log(result);

1)Remove duplicate value in array :

let arr=[1,2,3,5,2,1,4,4,3]

function Removeduplicate(arr) {

let result = [];

for(let i =0; i < arr.length; i++) {

if(result.indexOf(arr[i]) ===-1) {

result.push(arr[i])

}

}

return result;

}

console.log(Removeduplicate(arr));

15) Sorting an array of strings by length:

const strings = [

"india",

"bengaluru",

"america",

"english",

"tamil",

"malayalam",

];

strings.sort((a, b) => a.length - b.length);

console.log(strings);

3) Reversing letters and word :

let a ="string"

let b =a.split("").reverse().join("")

console.log(b)

6) Counting occurrences of a certain character:

let a = "The world is very big";

let b = "l";

count = 0;

for(i=0;i<a.length;i++)

{

if(a.charAt(i) === b)

{

count++;

}

}

console.log(count)

8) Removing white spaces from a string :

let str = " remove all spaces ";

str = str.split(" ").join("");

console.log(str);

9) Joining multiple strings with a delimiter :

const strings = ["ten", "tacle", "tech"];

const symbol = "+ ";

const result = strings.join(symbol);

console.log(result);

11) Check weather the palindrome or not :

let str=prompt("Enter the string")

function ispalindrome(str){

let Left=0;

let Right=str.length-1;

while(Left<Right)

{

if(str[Left]!==str[Right]){

return false;

}

Left++;

Right--;

}

return true;

}

console.log(ispalindrome(str));

4) string contains only digits :

let string=("1999")

function onlyDigits(s) {

for (let i = s.length - 1; i >= 0; i--) {

const d = s.charCodeAt(i);

if (d < 48 || d > 57) return false

}

return true

}

console.log(onlyDigits(string));

Mathematical Assignment

1a)Basic arithmetic operation

let m = prompt("Enter m Value");

let n = prompt("Enter n value");

let mul = m\*n ;

console.log(mul);

let div = mul/2;

console.log(parseInt(div));

let res = div%7;

console.log(parseInt(res));

1b)

function sum(N) {

let ans = 0;

for (let i = 1; i <= N; i++) {

if (i % 2 == 0 || i % 7 == 0) {

ans += i;

}

}

return ans;

}

let N =prompt("enter the value");

console.log(sum(N));

1c)

let a = prompt("Enter a number: ");

if(a % 2 == 0) {

console.log("The number is even.");

}

else {

console.log("The number is odd.");

}

4) Prime number

function getPrimesBtw(n) {

n = prompt("enter the no")

const primes = [];

for (let i = 2; i <= n; i++) {

let Prime = true;

for (let j = 2; j < i; j++) {

if (i % j === 0) {

Prime = false;

break;

}

}

if (Prime) {

primes.push(i);

}

}

return primes;

}

console.log(getPrimesBtw(n));

8a) Computation of a2 + b2 = c2

const a = prompt("Enter first number ");

const b = prompt("Enter second number ");

const c = Math.sqrt(Math.pow(a, 2) + Math.pow(b, 2));

console.log(c);

8b) Computation of a2 + b2 = c2 + d 2

const a = prompt("Enter first number ");

const b = prompt("Enter second number ");

const c = Math.sqrt((Math.pow(a, 2) + Math.pow(b, 2))/2 + Math.sqrt(2)\*Math.sqrt(Math.pow(a, 2)\*Math.pow(b, 2))/2);

const d = Math.sqrt((Math.pow(a, 2) + Math.pow(b, 2))/2 - Math.sqrt(2)\*Math.sqrt(Math.pow(a, 2)\*Math.pow(b, 2))/2);

console.log(c, d);