1. **Do the following program in anonymous and IIFE.**
2. **Print odd in an array.**

let arr = [1,2,3,4,5,6,7,8,9,10,11,12]

let odds = arr.filter(n => n%2){

console.log(odds)

}

**AND**

(()=>{

let arr = [1,2,3,4,5,6,7,8,9,10,11,12]

let odds = arr.filter(n => n%2){

console.log(odds)

}

1. **convert all strings to title caps in a string array**

let titleCase = function(st) { return st.split(" ").reduce( (s, c) => s +""+(c.charAt(0).toUpperCase() + c.slice(1) +" "), '');

}

console.log(titleCase("converting string to titlecase"));

**AND**

(()=>{ function toTitleCase1(str1){

Str1 = str1.toLowerCase().split(‘ ‘)

For(let i=0; i< str1.length; i++){

Str1[i]= str1[i].charAt(0).toUpperCase()+str1[i].slice(1)

}

Return str1[i].join(‘ ’)

}

Console.log(toTitleCase1(“converting string to titlecase"));

})();

1. **sum of all numbers in an array**

let sumArray= function(array) {

const ourArray = [1, 4, 0, 9, 7,8];

let sum = 0;

for (let i = 0; i < ourArray.length; i += 1) {

sum += ourArray[i];

}

return sum;

}

console.log(sumArray([1, 4, 0, 9, 7,8]));

**AND**

(function(){

const ourArray = [1, 4, 0, 9, 7,8];

let sum = 0;

for (var I in ourArray){

sum += ourArray[i];

}

Console.log(sum);

})();

1. **Return all prime numbers in an array**

const array = [-5, -3, -2, -1, ...Array(20).keys()];

// Array(20).keys() generates numbers from 0 to 19.

let isPrime = function(num) {

for (let start = 2; num > start; start++) {

if (num % start == 0) {

return false;

}

}

return num > 1;

}

console.log(array.filter(isPrime));

**AND**

(()=>{

Let arr=[1,2,3,4,5,6,7]

numArray= array.filter((number)=>{

for(var i=2; i<= Math.sqrt(number);i++){

if(number %i ===0)

return false;

}

Return true;

})

Console.log(numArray)

})();

1. **Return all the palindromes in an array**

let palin = function(str) {

str = str.replace(/\W/g, '').toLowerCase();

return (str == str.split('').reverse().join(''));

}

console.log(palin("level"));

console.log(palin("madam"));

console.log(palin("A car, a man, a maraca"));

**AND**

(()=>{

Let palin=(arr1) =>{

Let palindrome = true;

For(let i=0; i< arr1.length/2; i++){

If(arr1[i] !== arr1[arr1.length-i-1]){

isPalindrome = false;

}

}

Return palindrome;

}

Console.log(palin([1,2,2,1]))

})();

1. **Return median of two sorted arrays**

Let median = function(arr1, arr2){

var concat= arr1.concat(arr2);

concat = concat.sort(function (a,b) {return a-b})

console.log(concat);

var length= concat.length;

if(length % 2== 1){

console.log(concat[(length/2)-0.5])

return concat[(length/2)-0.5]

}

else{

return ( concat[length/2]+concat[(length/2)-1])/2)

}

}

arr1= [1,4,7,9]

arr2 =[2,5,6,8]

median(arr1,arr2)

**AND**

(()=>{

Const median = (a,b)=>{

Let c= […a,…b].sort((a,b)=> a-b;

Const half= c.length/2|0

If(c.length%2)

Return c[half]

Return (c[half] + c[half-1])/2;

}

Const arr1=[1,12,15,26,38]

Const arr2=[1,13,14,27,35]

Console.log(median(arr1,arr2));

})();

1. **Remove duplicate from an array**

let arr = ["apple", "mango", "apple", "orange", "mango", "mango"];

let removeDuplicates = function(arr) {

return arr.filter((item, index) => arr.indexOf(item) === index); } console.log(removeDuplicates(arr));

**AND**

(()=>{

Let num= [1,1,2,3,3,3,4,4,4,4]

Let uniqueNum = […new set(num)]

Console.log(uniqueNum);

})();

1. **Rotate an array by k times**

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

let k = 2;

let rotate = function(){

console.log(arr.slice(k).concat(arr.slice(0,k)));

}

rotate();

**AND**

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

let k = 2;(

() => {

console.log(arr.slice(k).concat(arr.slice(0,k)));

}

)();

**3. Do following with arrow function**

1. **Print odd numbers in an array**

let arr = [1,2,3,4,5,6,7,8,9,10,11,12]

let odds = arr.filter(n => n%2){

console.log(odds)

}

1. **convert all strings to title caps in a string array**

let titleCase = (st)=> { return st.split(" ").reduce( (s, c) => s +""+(c.charAt(0).toUpperCase() + c.slice(1) +" "), '');

}

console.log(titleCase("converting string to titlecase"));

1. **sum of all numbers in an array**

let sumArray=(array)=> {

const ourArray = [1, 4, 0, 9, 7,8];

let sum = 0;

for (let i = 0; i < ourArray.length; i += 1) {

sum += ourArray[i];

}

return sum;

}

console.log(sumArray([1, 4, 0, 9, 7,8]));

1. **Return all prime numbers in an array**

const array = [-5, -3, -2, -1, ...Array(20).keys()];

// Array(20).keys() generates numbers from 0 to 19.

let isPrime = (num)=> {

for (let start = 2; num > start; start++) {

if (num % start == 0) {

return false;

}

}

return num > 1;

}

console.log(array.filter(isPrime));

1. **Return all the palindromes in an array**

let palin = (str)=> {

str = str.replace(/\W/g, '').toLowerCase();

return (str == str.split('').reverse().join(''));

}

console.log(palin("level"));

console.log(palin("levels"));

console.log(palin("A car, a man, a maraca"));