**Do the below programs in anonymous function & IIFE**

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

const numbers = [8, 19, 5, 6, 14, 9, 13];

const odds = numbers.filter((num) => num % 2 === 1);

console.log(odds); // [19, 5 , 9, 13].

**b.Convert all the strings to title caps in a string array.**

function titleCase(str) {  
 return str.toLowerCase().split(' ').map(function(word) {  
 return (word.charAt(0).toUpperCase() + word.slice(1));  
 }).join(' ');  
}  
titleCase("I'm a little tea pot");

**c. Sum of all numbers in an array.**

const myNums = [1,2,3,4,5];

let sum = 0;

myNums.forEach( num => {  
 sum += num;  
})  
  
console.log(sum) // 15

**d. Return all the prime numbers in an array.**

function checkPrime(num){  
 for (let i = 2; i < num; i++){  
 if(num % i === 0){  
 }  
 }  
 }  
 function detectPrime(arr){  
 if (checkPrime){  
 return true;  
 }else{  
 return false;  
 }  
}  
console.log(detectPrime([15,110,7,22,25]));// true  
console.log(detectPrime([15,110,77,290,20]));// false

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

function palindrome(str) {  
 var re = /[\W\_]/g;  
 var lowRegStr = str.toLowerCase().replace(re, '');  
 var reverseStr = lowRegStr.split('').reverse().join('');   
 return reverseStr === lowRegStr;  
}  
palindrome("A man, a plan, a canal. Panama");

**f. Return median of two sorted arrays of the same size.**

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;  
}

Input:  
const arr1 = [1, 12, 15, 26, 38];  
const arr2 = [2, 13, 17, 30, 45, 47];  
console.log(median(arr1, arr2));  
  
Output:  
17

**g. Remove duplicates from an array.**

let arr = ["apple", "mango", "apple",

"orange", "mango", "mango"];

function removeDuplicates(arr) {

return arr.filter((item,

index) => arr.indexOf(item) === index);

}

console.log(removeDuplicates(arr));

**Output:**

["apple", "mango", "orange"]

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

function rotate(nums, k) {  
 const n = nums.length;  
 k %= n;  
   
 const rotated = [ ];  
 for (let i = 0; i < n; i++) {  
 rotated[(i + k) % n] = nums[i];  
 }  
   
 for (let i = 0; i < n; i++) {  
 nums[i] = rotated[i];  
 }  
}

**2. Do the below programs in arrow functions.**

**a. 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)

**b. Convert all the strings to title caps in a string array.**

function convertToTitleCase(str) {  
 if (!str) {  
 return ""  
 }  
 return str.toLowerCase().replace(/\b\w/g, s => s.toUpperCase());  
}  
  
console.log(convertToTitleCase('welcome to my article'));  
console.log(convertToTitleCase('THE avengers'));

**c. Sum of all numbers in an array.**

var sum = [1, 2, 3].reduce(add, 0);  
function add(a, b) {  
 return a + b;  
}  
console.log(sum);// 6

**d. Return all the prime numbers in an array.**

const newArray = [1, 3, 2, 5, 10];  
const myPrimeArray = newArray.filter(num => {  
 for (let i = 2; i < num; i++) {  
 if (num % i === 0) return false;  
 }  
 return num !== 1;  
});  
console.log(myPrimeArray);

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

const getAllPalindromes = (words) => words.filter((word) => word.split("").reverse().join("") === word);  
  
console.log(getAllPalindromes(["hello", "noon"]));