1. **Do the below programs in anonymous function & IIFE**
2. **Print odd numbers in an array**

var oddNumber=(arr){

var OddValues=[];

arr.forEach(num=>{

if(num%2!==0){

oddValues.push(num)

}

});

return oddValues

}

console.log(oddNumbers(numbers))

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

let strArray = ['kuMar', 'karti', 'ROSE', 'red', 'numbeR']

let titleCap = function(strArray) {

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

strArray[i] = strArray[i].toLowerCase();

strArray[i] = strArray[i].charAt(0).toUpperCase()+strArray[i].slice(1);

}

return strArray;

}

console.log(titleCap(strArray));

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

function sumArray(arr){

    var sum=0;

    for(let num of arr){

        sum+=num

    }

    return sum;

}

var numbers=[1,2,3,4,5,6]

    console.log(sumArray(numbers));

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

var a=[5,9,63,29,35,6,55,23]

var prime = [];

function isPrime(item) {

var identifier = item / 2;

for (var j = 2; j <= identifier; j++) {

if ((item % j) == 0) {

return false;

}

}

return true;

}

for (var index = 0; index < a.length; index++) {

if (isPrime(a[index])) {

prime.push(a[index])

}

}

console.log(prime);

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

function checkPalindrome(string) {

const arrayValues = string.split('');

const reverseArrayValues = arrayValues.reverse();

const reverseString = reverseArrayValues.join('');

if(string == reverseString) {

console.log('It is a palindrome');

}

else {

console.log('It is not a palindrome');

}

}

const string = prompt('Enter a string: ');

checkPalindrome(string);

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

function Solution(arr, n)

{

     if (n % 2 == 0)

     {

       var z = n / 2;

       var e = arr[z];

       var q = arr[z - 1];

       var ans = (e + q) / 2;

       return ans;

     }

    else

     {

       var z = Math.floor(n / 2);

       return arr[z];

     }

}

var arr1 = [ -5, 3, 6, 12, 15 ];

var arr2 = [ -12, -10, -6, -3, 4, 10 ];

var i =  arr1.length;

var j =  arr2.length;

var l =  i+j;

const arr3 = arr1.concat(arr2);

arr3.sort(function(a, b) {

  return a - b;

});

console.log("Median = " + Solution(arr3, l));

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**g. Remove duplicates from an array**

let input = [1,'kar',2,'kar', 1, 3, 2, 2, 'l','l',1];

(function() {

let ans=[];

ans = input.filter((a,b)=> input.indexOf(a) == b)

console.log(ans);

})();

**Output:** [ 1, 'kar', 2, 3, 'l' ]

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

let arr=[0,1,2,3,4,5,6,7,8,9]

let k=5;

let a = function(arr,k) {

for(let i=0; i<k; i++)

{

arr.push(arr[0]);

arr.shift();

}

return arr;

}

console.log(a(arr,k));

let arr=[0,1,2,3,4,5,6,7,8,9]

let k=5;

let a = function(arr,k) {

for(let i=0; i<k; i++)

{

arr.push(arr[0]);

arr.shift();

}

return arr;

}

console.log(a(arr,k));

**Output: [**5,6,7,8,9,0,1,2,3,4**]**

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

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

let input = [4,7,10,15,30,19,45,74,99]

let oddNumber = (input) => {

for(let i of input)

{

if(i%2 !== 0){

console.log(i);

}

}

}

oddNumber(input);

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

let strArray = ['kuMar', 'karti', 'ROSE', 'red', 'numbeR']

let titleCap = (strArray) => {

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

strArray[i] = strArray[i].toLowerCase();

strArray[i] = strArray[i].charAt(0).toUpperCase()+strArray[i].slice(1);

}

return strArray;

}

console.log(titleCap(strArray));

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

let input = [5,10,15,25,35,40,100];

(()=> {

let i=0;

let sum=0;

while(i<input.length) {

sum=sum+input[i]

i++;

}

console.log('Sum of all number is',sum);

})();

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

let input = [5,10,15,25,35,40,100];

let prime = (input)=>{

let i=0;

let arr=[];

while(i<input.length) {

let flag=0;

for(let j=2; j<=input[i]/2; j++)

{

if(input[i]%j === 0)

{

flag++;

break;

}

}

if(flag === 0) {

arr.push(input[i]);

}

i++;

}

return arr.join();

}

console.log(prime(input));

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

let input = [26,99,33,17,'kak','num','rotator','noon']

let palindrome = (input)=> {

let i=0;

let ans="";

while(i<input.length) {

let temp="";

temp=temp+input[i];

let flag=0;

for(let j=0; j<temp.length; j++)

{

if(temp[j] == temp[temp.length-1-j])

{

flag++;

}

else

{

break;

}

}

if(flag === temp.length) {

ans=ans+input[i]+" ";

}

i++;

}

if(ans.length>0)

{

return ans.trimEnd();

}

else

{

return 'No Palindrome found'

}

}

console.log(palindrome(input));