**1.TO PRINT ODD NUMBERS IN AN ARRAY**

ANONYMOUS FUNCTION

var odd =function (arr)

{

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

{

if(arr[i]%2==0)

{

console.log("");

}else

{

console.log(arr[i]);

}

}

}

var arr=[2,3,4,5,6,7]

odd(arr)

IIFE:

(function (arr)

{

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

{

if(arr[i]%2==0)

{

console.log("");

}else

{

console.log(arr[i]);

}

}

})([2,3,4,5,6,7,]);

**2]TO CONVERT ALL THE STRINGS TO TITLE CASE IN A STRING ARRAY**

ANONYMOUS:

var titleCase= function (arr)

{

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

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

}

console.log(arr.join(" "));

}

arr=["good","morning","to","everyone"]

titleCase(arr);

IIFE:

( function (arr)

{

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

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

}

console.log(arr.join(" "));

})([‘good’,’morning’,’to’,’everyone’]);

**3]SUM OF ALL NUMBERS IN AN ARRAY**

ANONYMOUS:

var sum= function (arr) {

let sum=0

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

sum +=arr[i]

}

console.log(sum)

}

arr=[2,4,6,8,10]

sum(arr);

IIFE:

(function (arr) {

let sum=0

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

sum +=arr[i]

}

console.log(sum)

})([2,4,6,8,10]);

**4]RETURN ALL THE PRIME NUMBERS IN AN ARRAY**

ANONYMOUS:

const numbers = [2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15];

const primeNumbers = numbers.filter(function(number) {

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

if (number % i === 0) {

return false;

}

}

return number > 1;

});

primeNumbers.forEach(function(number) {

console.log(number);

IIFE:

(function() {

const numbers = [2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15];

const isPrime = number => {

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

if (number % i === 0) {

return false;

}

}

return number > 1;

};

const primeNumbers = numbers.filter(isPrime);

primeNumbers.forEach(number => {

console.log(number);

});

})();

**5] RETURN ALL THE PALINDROMES IN AN ARRAY**

ANONYMOUS:

const words = ['level', 'hello', 'racecar', 'world', 'madam'];

const palindromes = words.filter(function(word) {

const reversed = word.split('').reverse().join('');

return word === reversed;

});

console.log(palindromes);

IIFE:

(function() {

const words = ['level', 'hello', 'radar', 'world', 'madam'];

const isPalindrome = word => {

const reversed = word.split('').reverse().join('');

return word === reversed;

};

const palindromeWords = words.filter(isPalindrome);

palindromeWords.forEach(word => {

console.log(word);

});

})();

**6]TO RETURN MEDIAN OF TWO SORTED ARRAYS OF SAME SIZE**

ANONYMOUS:

var findMedianSortedArrays=function(arr1, arr2) {

const mergedArray = arr1.concat(arr2); // Merge both arrays into a single array

const sortedArray = mergedArray.sort((a, b) => a - b); // Sort the merged array in ascending order

const length = sortedArray.length;

const midIndex = Math.floor(length / 2);

if (length % 2 !== 0) {

return sortedArray[midIndex];

} else {

return (sortedArray[midIndex - 1] + sortedArray[midIndex]) / 2;

}

}

const arr1 = [1, 3, 5];

const arr2 = [2, 4, 6];

const median = findMedianSortedArrays(arr1, arr2);

console.log(median);

IIFE:

(function() {

const arr1 = [1, 3, 5];

const arr2 = [2, 4, 6];

const mergedArray = arr1.concat(arr2);

const sortedArray = mergedArray.sort((a, b) => a - b);

const length = sortedArray.length;

const midIndex = Math.floor(length / 2);

let median;

if (length % 2 !== 0) {

median = sortedArray[midIndex];

} else {

median = (sortedArray[midIndex - 1] + sortedArray[midIndex]) / 2;

}

console.log(median);

})();

**7]REMOVE DUPLICATES FROM AN ARRAY**

ANONYMOUS:

const array = [1, 2, 3, 4, 4, 5, 6, 6, 7, 8, 8];

const uniqueArray = (function(arr) {

return arr.filter(function(value, index, self) {

return self.indexOf(value) === index;

});

})(array);

console.log(uniqueArray);

IIFE:

const array = [1, 2, 3, 4, 4, 5, 6, 6, 7, 8, 8];

const uniqueArray = (() => {

return array.filter((value, index, self) => {

return self.indexOf(value) === index;

});

})();

console.log(uniqueArray);

**8]TO ROTATE ARRAY BY K TIMES**

ANONYMOUS:

const rotateArray1 = function(nums, k) {

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

nums.unshift(nums.pop());

}

return nums;

};

nums=[1,2,3,4,5]

console.log(rotateArray1(nums,3))

IIFE:

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

const k = 3;

const rotatedArray = (function(arr, k) {

const len = arr.length;

const rotations = k % len;

const rotated = arr.slice(rotations).concat(arr.slice(0, rotations));

return rotated;

})(array, k);

console.log(rotatedArray);

**ARROW FUNCTIONS:**

**1]TO PRINT ODD NUMBERS IN AN ARRAY:**

const numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10];

numbers.forEach(number => {

if (number % 2 !== 0) {

console.log(number);

}

});

**2] TO CONVERT ALL THE STRINGS TO TITLE CASE IN A STRING ARRAY**

const strings = ["hello", "world", "javascript", "example"];

const titleCaseStrings = strings.map(string => {

return string.charAt(0).toUpperCase() + string.slice(1);

});

console.log(titleCaseStrings);

**3] SUM OF ALL NUMBERS IN AN ARRAY**

var sumarr= (arr) =>{

let sum=0

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

{

sum +=arr[i]

}

console.log(sum)

};

sumarr([1,2,3,4,5]);

**4] RETURN ALL THE PRIME NUMBERS IN AN ARRAY**

const numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10];

const isPrime = num => {

if (num < 2) {

return false;

}

for (let i = 2; i <= Math.sqrt(num); i++) {

if (num % i === 0) {

return false;

}

}

return true;

};

const primeNumbers = numbers.filter(isPrime);

console.log(primeNumbers);

**5] RETURN ALL THE PALINDROMES IN AN ARRAY**

const arr = ['racecar', 1344, 12321, 'did', 'cannot'];

const isPalindrome = el => {

const str = String(el);

let i = 0;

let j = str.length - 1;

while(i < j) {

if(str[i] === str[j]) {

i++;

j--;

}

else {

return false;

}

}

return true;

};

const findPalindrome = arr => {

return arr.filter(el => isPalindrome(el));

};

console.log(findPalindrome(arr));