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

**let numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9];**

**(function(arr) {**

**for (let num of arr) {**

**if (num % 2 !== 0) {**

**console.log(num);**

**}**

**}**

**})(numbers);**

**2)Convert all the strings to title caps in a string array**

**let stringsArray = ["hello world", "good morning", "how are you"];**

**let titleCapsStrings = (function(arr) {**

**let titleCapsArray = [];**

**for (let str of arr) {**

**let words = str.split(' ');**

**let capitalizedWords = words.map(word => word.charAt(0).toUpperCase() + word.slice(1).toLowerCase());**

**let titleCapsStr = capitalizedWords.join(' ');**

**titleCapsArray.push(titleCapsStr);**

**}**

**return titleCapsArray;**

**})(stringsArray);**

**console.log(titleCapsStrings);**

**3)Sum of all numbers in an array**

**let numbersArray = [1, 2, 3, 4, 5];**

**let totalSum = (function(arr) {**

**let sum = 0;**

**for (let num of arr) {**

**sum += num;**

**}**

**return sum;**

**})(numbersArray);**

**console.log("Sum of numbers:", totalSum);**

**4)Return all the prime numbers in an array**

**let numbersArray = [2, 3, 4, 5, 6, 7, 8, 9, 10];**

**let primeNumbers = (function(arr) {**

**let isPrime = function(num) {**

**if (num <= 1) {**

**return false;**

**}**

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

**if (num % i === 0) {**

**return false;**

**}**

**}**

**return true;**

**};**

**return arr.filter(num => isPrime(num));**

**})(numbersArray);**

**console.log("Prime numbers:", primeNumbers);**

**5)Return all the palindromes in an array**

**let stringsArray = ["radar", "hello", "level", "noon", "world", "madam"];**

**let palindromes = (function(arr) {**

**let isPalindrome = function(str) {**

**let reversedStr = str.split('').reverse().join('');**

**return str === reversedStr;**

**};**

**return arr.filter(str => isPalindrome(str));**

**})(stringsArray);**

**console.log("Palindromes:", palindromes);**

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

**let arr1 = [1, 3, 5, 7, 9];**

**let arr2 = [2, 4, 6, 8, 10];**

**let mergedArray = arr1.concat(arr2).sort((a, b) => a - b);**

**let length = mergedArray.length;**

**let median = (mergedArray[Math.floor((length - 1) / 2)] + mergedArray[Math.ceil((length - 1) / 2)]) / 2;**

**console.log("Median:", median);**

**7)Remove duplicates from an array**

**let arrayWithDuplicates = [1, 2, 3, 1, 4, 2, 5];**

**let uniqueArray = arrayWithDuplicates.filter((value, index, self) => self.indexOf(value) === index);**

**console.log("Array with duplicates:", arrayWithDuplicates);**

**console.log("Unique array:", uniqueArray);**

**8)Rotate an array by k times**

**function rotateArray(arr, k) {**

**let n = arr.length;**

**// Calculate the actual rotation amount**

**k = k % n;**

**// Slice the array and concatenate it to create the rotated array**

**let rotatedArray = arr.slice(-k).concat(arr.slice(0, n - k));**

**return rotatedArray;**

**}**

**let originalArray = [1, 2, 3, 4, 5];**

**let k = 2;**

**let rotatedArray = rotateArray(originalArray, k);**

**console.log("Original Array:", originalArray);**

**console.log("Rotated Array:", rotatedArray);**