1. Do the below programs in anonymous function & IIFE

Print odd numbers in an array

Convert all the strings to title caps in a string array

Sum of all numbers in an array

Return all the prime numbers in an array

Return all the palindromes in an array

Return median of two sorted arrays of the same size.

Remove duplicates from an array

Rotate an array by k times

**Print odd numbers in an array**

**// Anonymous function**

let printOdd = function(arr) {

arr.forEach(function(num) {

if (num % 2 !== 0) {

console.log(num);

}

});

}

**// IIFE**

(function(arr) {

arr.forEach(function(num) {

if (num % 2 !== 0) {

console.log(num);

}

});

})([1, 2, 3, 4, 5, 6]);

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

**// Anonymous function**

let toTitleCaps = function(arr) {

let result = arr.map(function(str) {

return str.charAt(0).toUpperCase() + str.slice(1).toLowerCase();

});

return result;

}

**// IIFE**

let result = (function(arr) {

return arr.map(function(str) {

return str.charAt(0).toUpperCase() + str.slice(1).toLowerCase();

});

})(["john", "SMITH", "jane DOE"]);

console.log(result);

**Sum of all numbers in an array**

**// Anonymous function**

let sum = function(arr) {

let result = 0;

arr.forEach(function(num) {

result += num;

});

return result;

}

**// IIFE**

let result = (function(arr) {

let sum = 0;

arr.forEach(function(num) {

sum += num;

});

return sum;

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

console.log(result);

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

**// Anonymous function**

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;

}

let primes = function(arr) {

let result = arr.filter(function(num) {

return isPrime(num);

});

return result;

}

**// IIFE**

let result = (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;

}

let result = arr.filter(function(num) {

return isPrime(num);

});

return result;

})([2, 3, 4, 5, 6, 7, 8, 9, 10]);

console.log(result);

**Return all the palindromes in an array**

**// Anonymous function**

let isPalindrome = function(str) {

let reverseStr = str.split("").reverse().join("");

return str === reverseStr;

}

let palindromes = function(arr) {

let result = arr.filter(function(str) {

return isPalindrome(str);

});

return result;

}

**// IIFE**

let result = (function(arr) {

let isPalindrome = function(str) {

let reverseStr = str.split("").reverse().join("");

return str === reverseStr;

}

let result = arr.filter(function(str) {

return isPalindrome(str);

});

return result;

})(["racecar", "hello", "mom", "dad", "world"]);

console.log(result);

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

let arr1 = [1, 2, 3, 4, 5];

let arr2 = [6, 7, 8, 9, 10];

let median = (function() {

let arr = arr1.concat(arr2);

arr.sort(function(a, b) {

return a - b;

});

let mid = Math.floor(arr.length / 2);

if (arr.length % 2 === 0) {

return (arr[mid - 1] + arr[mid]) / 2;

} else {

return arr[mid];

}

})();

console.log(median);

**Remove duplicates from an array**

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

let unique = (function() {

let result = [];

arr.forEach(function(num) {

if (result.indexOf(num) === -1) {

result.push(num);

}

});

return result;

})();

console.log(unique);

**Rotate an array by k times**

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

let k = 2;

let rotate = (function() {

let result = arr.slice(k, arr.length).concat(arr.slice(0, k));

return result;

})();

console.log(rotate);

3. Do the below programs in arrow functions.

Print odd numbers in an array

Convert all the strings to title caps in a string array

Sum of all numbers in an array

Return all the prime numbers in an array

Return all the palindromes in an array

Sure! Here are the programs rewritten using arrow functions:

**Print odd numbers in an array**

let arr = [1, 2, 3, 4, 5, 6];

let printOdd = (arr) => {

arr.forEach(num => {

if (num % 2 !== 0) {

console.log(num);

}

});

}

printOdd(arr);

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

let arr = ["john", "SMITH", "jane DOE"];

let toTitleCaps = (arr) => {

let result = arr.map(str => {

return str.charAt(0).toUpperCase() + str.slice(1).toLowerCase();

});

return result;

}

console.log(toTitleCaps(arr));

**Sum of all numbers in an array**

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

let sum = (arr) => {

let result = 0;

arr.forEach(num => {

result += num;

});

return result;

}

console.log(sum(arr));

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

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

let isPrime = (num) => {

if (num <= 1) {

return false;

}

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

if (num % i === 0) {

return false;

}

}

return true;

}

let primes = (arr) => {

let result = arr.filter(num => {

return isPrime(num);

});

return result;

}

console.log(primes(arr));

**Return all the palindromes in an array**

let arr = ["racecar", "hello", "mom", "dad", "world"];

let isPalindrome = (str) => {

let reverseStr = str.split("").reverse().join("");

return str === reverseStr;

}

let palindromes = (arr) => {

let result = arr.filter(str => {

return isPalindrome(str);

});

return result;

}

console.log(palindromes(arr));