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

(function(odd) {

odd.forEach(function(num) {

if (num % 2 !== 0) {

console.log(num);

}

});

})([1, 2, 3, 4, 5, 6, 7, 8, 9]);

Output:

1

3

5

7

9

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

(function(arr) {

var newArray = arr.map(function(str) {

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

});

console.log(newArray);

})(["hello", "world", "javascript"]);

Output:

["Hello", "World", "Javascript"]

* 1. Sum of all numbers in an array

(function(arr) {

var sum = arr.reduce(function(acc, num) {

return acc + num;

}, 0);

console.log(sum);

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

Ouput:

15

* 1. Return all the prime numbers in an array

(function(arr) {

var primes = arr.filter(function(num) {

if (num < 2) {

return false;

}

for (var i = 2; i < num; i++) {

if (num % i === 0) {

return false;

}

}

return true;

});

console.log(primes);

})([1, 2, 3, 4, 5, 6, 7, 8, 9]);

Output:

[ 2, 3, 5, 7 ]

* 1. Return all the palindromes in an array

(function(arr) {

var palindromes = arr.filter(function(word) {

var reversedWord = word.split('').reverse().join('');

return word === reversedWord;

});

console.log(palindromes);

})(["level", "hello", "racecar", "world"]);

Output:

[ 'level', 'racecar' ]

f.Return all the palindromes in an array

(function(arr) {

var uniqueArray = arr.filter(function(value, index, self) {

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

});

console.log(uniqueArray);

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

Ouput:

[ 1, 2, 3, 4, 5, 6 ]

g.Rotate an array by k times

(function(arr, k) {

const rotateArray = function(arr, k) {

k = k % arr.length;

return arr.slice(k).concat(arr.slice(0, k));

};

console.log("Original Array:", arr);

console.log("Rotated Array by", k, "times:", rotateArray(arr, k));

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

Output:

Original Array: [ 1, 2, 3, 4, 5 ]

Rotated Array by 2 times: [ 3, 4, 5, 1, 2 ]