Q.1 Do the below programs in anonymous function & IIFE.

1. print odd numbers in an array

ans) anonymous fn:

**function** printOdd(num) {

**for** (**let** i**=**1; i**<**num; i**++**) {

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

console.log(i);

}

}

}

IIFE FN:

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

if(i%2!==0){

function()(console.log(i));

}  
}

b) Sum of all numbers in an array

function sumArray(array) {

for (

var

index = 0, // The iterator

length = array.length, // Cache the array length

sum = 0; // The total amount

index < length; // The "for"-loop condition

sum += array[index++] // Add number on each iteration

);

return sum;

}

C) Return all the prime numbers in an array

Ans

function isPrime(num) {

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

if (num % i === 0) {

return false;

}

}

return num > 1;

}

console.log(array.filter(isPrime));

d) Return all the palindromes in an array

const arr = ['carecar', 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));

E) Remove duplicates from an array

Ans)

function uniq\_fast(a) {

var seen = {};

var out = [];

var len = a.length;

var j = 0;

for(var i = 0; i < len; i++) {

var item = a[i];

if(seen[item] !== 1) {

seen[item] = 1;

out[j++] = item;

}

}

return out;

}

1. F) Rotate an array by k times

ANS)

function arrayRotate(arr, reverse) {

if (reverse) arr.unshift(arr.pop());

else arr.push(arr.shift());

return arr;

}

Q.2) Do the below programs in arrow functions

1. a) Print odd numbers in an array

ans)

let arr = [1,2,3,4,5,6,7,8,9,10,11,12]

let odds = arr.filter(n => n%2)

console.log(odds)

}

b) Sum of all numbers in an array

ans)

var arr = [1, 2, 3];

var sum = arr.reduce((x, y) => x + y);

document.write(sum);

c) Return all the prime numbers in an array

ans)

boolean isPrime(double p) {

if (p < 2) return false;

for (int i = 2; i <= Math.sqrt(p); i++) if (p % i == 0) return false;

return true;

}

d) Return all the palindromes in an array

ans)

const arr = [1, 5, 7, 4, 15, 4, 7, 5, 1];

const isPalindrome = arr => {

   const { length: l } = arr;

   const mid = Math.floor(l / 2);

   for(let i = 0; i <= mid; i++){

      if(arr[i] !== arr[l-i-1]){

         return false;

      };

   };

   return true;

};

console.log(isPalindrome(arr));