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

//a.Print odd numbers in an array

//anonymous function

let num=[1,2,3,4,5,6]

let oddNum=[]

let arr=function (i){

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

if(i%2!==0){

oddNum.push(i)

}console.log(oddNum)

}

arr(num)

//IIFE

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

(function () {

let odd= a.filter(num => num %2 !==0);

console.log( odd);

})();

b// Convert all the strings to title caps in a string array

//anonymous function

let result=function(str){

let arr=str.toLowerCase().split(" ")

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

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

}

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

}

result("heLlo woRld")

//IIFE

(function(str){

let arr=str.toLowerCase().split(" ")

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

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

}

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

})("heLlo woRld");

// C.Sum of all numbers in an array

//anonymous function

let num=[1,2,3,4,5]

let total=num.reduce(function(a,b){return a+b} )

console.log(total)

// IIFE

let num=[1,2,3,4,5]

let sum =function(){

return function sum(arr){

let arg=arr

return arg.reduce((a,b)=>a+b)

}

}();

console.log(sum(num))

// d.Return all the prime numbers in an array

//anonymous function

let primes = function (arr){

return arr.filter(num =>

{

if (num<=1) return false

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

if (num%i===0)return false

}

return true

})}

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

console.log(primes(numbers));

// IIEF

let primes =(function(){

return (arr)=>{

return arr.filter(num =>

{

if (num<=1) return false

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

if (num%i===0)return false

}

return true

})}

})();

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

console.log(primes(numbers));

// e.Return all the palindromes in an array

//anonymous function

let palindromes=function (arr){

let store=[]

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

let words = arr[i].toString();

let rev\_word=words.split("").reverse().join("")

if(words===rev\_word){

store.push(arr[i])

}}

return store

}

let words = ["level", "word", "rotor", "civic", "deified"];

letpalindromes(words);

console.log(palindromes(words));

// IIEF

let findPalindromes = (function()

{

return arr=>{return arr.filter(w=> w=== w.split("").reverse().join(""))

}})();

let words = ["level", "word", "rotor", "civic", "deified"];

let palindromes = findPalindromes(words);

console.log(palindromes);

//f. Return median of two sorted arrays of the same size.

//anonymous function

let c=function(arr1,arr2){

let combine=[...arr1,...arr2].sort((a,b)=>a-b)

let middle=Math.floor(combine.length/2)

if(combine%2===0){

return (combine[middle-1]+combine[middle])/2

}

else{

return combine[middle]}

}

let a=[1,2,3,4]

let b=[4,5,6,7]

console.log(c(a,b))

// IIEF

let c=(function(){

return (arr1,arr2)=>{

let combine=[...arr1,...arr2].sort((a,b)=>a-b)

let middle=Math.floor(combine.length/2)

if(combine%2===0){

return (combine[middle-1]+combine[middle])/2

}

else{

return combine[middle]}

}

})();

let a=[1,2,3,4]

let b=[4,5,6,7]

console.log(c(a,b))

/g. Remove duplicates from an array

//anonymous function

let remove\_dup=function (arr) {

return [...new Set(arr)];

}

let a=[1,2,1,3,4]

console.log(remove\_dup (a))

// IIEF

let remove\_dup=(function(){return (arr)=> {

return [...new Set(arr)];

}

})();

let a=[1,2,1,3,4]

console.log(remove\_dup (a))

// h.Rotate an array by k times

//anonymous function

let rotatedArray = function(array, k) {

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

array.unshift(array.pop());

}

return array;

}

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

let k = 2;

console.log(rotatedArray(arr, k));

// IIEF

let rotatedArray =(function(){return function(array, k) {

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

array.unshift(array.pop());

}

return array;

}

})();

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

let k = 2;

console.log(rotatedArray(arr, k));

//2.Do the below programs in arrow function

a// arrow function

let num=[1,2,3,4,5,6]

let oddNum=[]

let arr= (i)=>{

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

if(num[i]%2!==0){

oddNum.push(nu// arrow Function

let remove\_dup= (arr)=> {

return [...new Set(arr)];

}

let a=[1,2,1,3,4]

console.log(remove\_dup (a)) // arrow Function

let remove\_dup= (arr)=> {

return [...new Set(arr)];

}

let a=[1,2,1,3,4]

console.log(remove\_dup (a)) // arrow Function

let remove\_dup= (arr)=> {

return [...new Set(arr)];

}

let a=[1,2,1,3,4]

console.log(remove\_dup (a)) // arrow Function

let remove\_dup= (arr)=> {

return [...new Set(arr)];

}

let a=[1,2,1,3,4]

console.log(remove\_dup (a)) // arrow Function

let remove\_dup= (arr)=> {

return [...new Set(arr)];

}

let a=[1,2,1,3,4]

console.log(remove\_dup (a))m[i])

}console.log(oddNum)}

arr(num)

b// arrow function

let result= str =>{

let arr=str.toLowerCase().split(" ")

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

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

}

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

}

result("heLlo woRld")

// C.Sum of all numbers in an array

// arrow Function

let num=[1,2,3,4,5]

let total=num.reduce((a,b)=> a+b )

console.log(total)

// d.Return all the prime numbers in an array

// arrow Function

let primes =(arr)=>{

return arr.filter(num =>

{

if (num<=1) return false

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

if (num%i===0)return false

}

return true

})}

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

console.log(primes(numbers));

// e.Return all the palindromes in an array

let palindromes= arr=>{

let store=[]

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

let words = arr[i].toString();

let rev\_word=words.split("").reverse().join("")

if(words===rev\_word){

store.push(arr[i])

}}

return store

}

let words = ["level", "word", "rotor", "civic", "deified"];

palindromes(words);

console.log(palindromes(words));