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

a.Print odd numbers in an array

**anonymous function:**

var odd = function (arr) {

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

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

console.log(arr[i])

}

}

};

odd([1,2,3,4,5,6,7,8,9,10]);

**IIFE:**

(function (a){

for(var i = 0 ; i< a.length ; i++){

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

console.log(a[i])

}

}

})([1,2,3,4,5,6,7,8,9,10,11]);

**Arrow functions:**

var odd = (a) =>

{

for(var i = 0 ; i< a.length ; i++){

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

console.log(a[i])

}

}

}

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

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

**anonymous function:**

var caps=function(str)

{

str = str.toLowerCase().split(' ');

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

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

}

return str.join(' ');

}

console.log(caps("learning javascript today"));

**IIFE:**

(function(str)

{

str = str.toLowerCase().split(' ');

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

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

}

return str.join(' ');

})("learning javascript today");

**Arrow functions:**

var caps=(str)=>

{

str = str.toLowerCase().split(' ');

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

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

}

return str.join(' ');

}

caps("learning javascript today");

**c.Sum of all numbers in an array**

**anonymous function:**

var a=function (num) {

var sum = 0;

for (let i = 0; i < num.length; i += 1) {

sum += num[i];

}

return sum;

}

console.log(a([1,2,3,4,5]));

**IIFE:**

(function (num) {

var sum = 0;

for (let i = 0; i < num.length; i += 1) {

sum += num[i];

}

return sum;

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

**Arrow functions:**

var s=(num)=>{

var sum = 0;

for (let i = 0; i < num.length; i += 1) {

sum += num[i];

}

return sum;

}

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

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

**anonymous function:**

var prime=function (num){

num = num.filter((number) => {

for (var i = 2; i <= Math.sqrt(number); i++) {

if (number % i === 0) return false;

}

return true;

});

console.log(num);

}

prime([1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20])

**IIFE:**

(function (num){

num = num.filter((number) => {

for (var i = 2; i <= Math.sqrt(number); i++) {

if (number % i === 0) return false;

}

return true;

});

console.log(num);

} )([1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20]);

**Arrow functions:**

var prime=(num)=>{

num = num.filter((number) => {

for (var i = 2; i <= Math.sqrt(number); i++) {

if (number % i === 0) return false;

}

return true;

});

console.log(num);

}

prime([1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20]);

**g.Remove duplicates from an array**

**anonymous function:**

var arr=function(a){

let d = [...new Set(a)];

return d;

}

console.log(arr([1,1,2,3,4,4]))

**IIFE:**

(function(a){

let d = [...new Set(a)];

return d;

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