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

|  |  |
| --- | --- |
| **Input** var arr=[1,2,3,4,5,6]; | |
| **Anonymous function**  var odd=function (arr){  for(let i=0;i<arr.length;i++)  {  if(arr[i]%2!==0)  console.log(arr[i]);  }};  odd(arr); | **IIFE**  (function (arr){  for(let i=0;i<arr.length;i++)  {  if(arr[i]%2!==0)  console.log(arr[i]);  }})(arr); |
| **Output:**  1  3  5 | |

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

|  |  |
| --- | --- |
| **Input** 'iNdia is ouR couNtry' | |
| **Anonymous function**  var titlecase = 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(titlecase('iNdia is ouR couNtry')); | **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);  }  console.log(str.join(' '));  })('iNdia is ouR couNtry'); |
| **Output:**  India Is Our Country | |

* 1. Sum of all numbers in an array

|  |  |  |
| --- | --- | --- |
| **Input** :var arr=[1,2,3,4,5,6,7,8,9]; | |  |
| **Anonymous function**  var sum=function(arr)  {  let tot=0;  for(let i=0;i<arr.length;i++)  {  tot+=arr[i];  }  return tot;  }  console.log(sum(arr)); | | **IIFE**  (function(arr)  {  let tot=0;  for(let i=0;i<arr.length;i++)  {  tot+=arr[i];  }  console.log(tot);  })(arr); |
| **Output:**  45 | | |

* 1. Return all the prime numbers in an array

|  |  |
| --- | --- |
| **Input:** var arr=[5,6,78,23,45,26,75,4]; | |
| **Anonymous function**  var prime=function(arr)  {  let flag;let res=[];  for(let i=0;i<arr.length;i++)  {  flag=true;  if(arr[i]===1) flag=false;  else if(arr[i]>1)  for(let j=2;j<arr[i]-1;j++)  {  if(arr[i]%j===0) flag=false;break;  }  if(flag===true)res.push(arr[i]);  }  return res;  }  console.log(prime(arr)); | **IIFE**  (function(arr)  {  let flag;let res=[];  for(let i=0;i<arr.length;i++)  {  flag=true;  if(arr[i]===1) flag=false;  else if(arr[i]>1)  for(let j=2;j<arr[i]-1;j++)  {  if(arr[i]%j===0) flag=false;break;  }  if(flag===true)res.push(arr[i]);  }  console.log(res); })(arr); |
| **Output:**  [5, 23, 45, 75] | |

* 1. Return all the palindromes in an array

|  |  |
| --- | --- |
| **Input:** let arr = ['carecar', 1344, 12321, 'did', 'cannot']; | |
| **Anonymous function**  var palindrome=function(arr){  let op=[];  for(let i=0;i<arr.length;i++)  { let flag=true;  let str=String(arr[i]);  let str1=String(str.split('').reverse().join(''));  if(str!==str1)  flag=false;  if(flag===true) op.push(str);  }  return op;  }  console.log(palindrome(arr)); | **IIFE**  (function(arr){  let op=[];  for(let i=0;i<arr.length;i++)  { let flag=true;  let str=String(arr[i]);  let str1=String(str.split('').reverse().join(''));  if(str!==str1)  flag=false;  if(flag===true) op.push(str);  }  console.log(op);  })(arr); |
| **Output:**  [ 12321, 'did' ] | |

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

|  |  |
| --- | --- |
| **Input:**  let arr1=[1,4,6,7];  let arr2=[3,5,8,9]; | |
| **Anonymous function**  let median=function(arr1,arr2){  if(arr1.length===arr2.length){  let arr=arr1.concat(arr2);  let m1=arr[arr.length/2-1]  let m2=arr[arr.length/2];  return (m1+m2)/2;}  else  return 'unequal size of array'  }  console.log(median(arr1,arr2)) | **IIFE**  (function(arr1,arr2){  if(arr1.length===arr2.length){  let arr=arr1.concat(arr2);  let m1=arr[arr.length/2-1]  let m2=arr[arr.length/2];  console.log((m1+m2)/2);}  else  console.log('unequal size of array');  })(arr1,arr2); |
| **Output:**  5 | |

* 1. Remove duplicates from an array

|  |  |
| --- | --- |
| **Input**: let arr=[1,4,4,9,6,7,6,7]; | |
| **Anonymous function**  let dp=function(arr)  {  let op=[];  for(let i=0;i<arr.length;i++)  {  if(arr.indexOf(arr[i])===i)  {  op.push(arr[i]);  }  }  return op;  }  console.log(dp(arr)); | **IIFE**  (function(arr)  {  let op=[];  for(let i=0;i<arr.length;i++)  {  if(arr.indexOf(arr[i])===i)  {  op.push(arr[i]);  }  }  console.log(op);  })(arr); |
| **Output:**  [1, 4, 9, 6, 7] | |

* 1. Rotate an array by k time

|  |  |
| --- | --- |
| **Input:** let arr=[1,2,3,4,5,6,7]; |  |
| **Anonymous function**  let rotate=function(arr,k)  {  let op=[];  let arr1=arr.concat(arr);  op=arr1.slice(arr.length-k,(arr.length+k)+1);  return op;  };  console.log(rotate(arr,3)); | **IIFE**  (function(arr,k)  {  let op=[];  let arr1=arr.concat(arr);  console.log(arr1.slice(arr.length-k,(arr.length+k)+1));  })(arr,3); |
| **Output:**  [5, 6, 7, 1, 2, 3, 4] | |

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1. <https://medium.com/@reach2arunprakash/guvi-zen-class-javascript-warm-up-programming-problems-15973c74b87f>

**1.Write a function called “addFive”.  
Given a number, “addFive” returns 5 added to that number.**

var num = 10;

function addFive(num) {

return 5+(num);

}

var result = addFive(num)

**2. Write a function called “getOpposite”.**

**Given a number, return its opposite**

function getOpposite(num) {

if((num>0)||(num<0))

{

num=-1\*(num);

}

return (num);

}

var num = 5;

var result = getOpposite(num);

console.log(result);

**output:**

-5

**3.Fill in your code that takes an number minutes and converts it to seconds.**

var min = 3;

function toSeconds(min) {

return min\*60;

}

var secs = toSeconds(min);

console.log(secs);

**output:**

180

**4.Create a function that takes a string and returns it as an integer.**

var mystr = "5";

function toInteger(mystr) {

return parseInt(mystr);

}

var myint = toInteger(mystr);

console.log(myint);

**5**. **Create a function that takes a number as an argument, increments the number by +1 and returns the result.**

var myint = -5;

function nextNumber(myint) {

return myint+1;

}

var myNextint = nextNumber(myint);

console.log(myNextint);

**6. Create a function that takes an array and returns the first element.**

var arr = [10, 2, 3];

function getFirstElement(arr) {

return arr[0];

}

var data = getFirstElement(arr);

**7.Convert Hours into Seconds**

**Write a function that converts hours into seconds.**

function hourToSeconds(arr) {

return arr\*3600;

}

var arr=2;

var data = hourToSeconds(arr);

console.log(data);

**8.Find the Perimeter of a Rectangle**  
**Create a function that takes height and width and finds the perimeter of a rectangle.**

function findPerimeter(num1,num2) {

return 2\*(num1+num2);

}

var peri = findPerimeter(6,7)

console.log(peri);

**9.** **Less Than 100?  
Given two numbers, return true if the sum of both numbers is less than 100. Otherwise return false.**

function lessThan100(num1,num2) {

if((num1+num2)<100)

return true;

else

return false;

}

var res = lessThan100(22,15)

console.log(res);

**10. Find the maximum number in an array of numbers**

function findMax(ar)

{

// your code here

return Math.max(...ar);

}

var ar = [-5, 10, -3, 12, -9, 5, 90, 0, 1];

var max = findMax(ar);

console.log("Max: ", max);

**Output:** 90

**……………………………………………………………………………………………………………..**

1. Do the below programs in arrow functions
   1. Print odd numbers in an array

|  |
| --- |
| **Input** : var arr=[1,2,3,4,5,6]; |
| **Arrow Function**  var odd=(arr)=>{  for(let i=0;i<arr.length;i++)  {  if(arr[i]%2!==0)  console.log(arr[i]);  }  };  odd(arr); |
| **Output:**  1  3  5 |

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

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| **Input** : 'iNdia is ouR couNtry' |
| **Arrow Function**  var titlecase = (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(titlecase('iNdia is ouR couNtry')); |
| **Output:**  India Is Our Country |

* 1. Sum of all numbers in an array

|  |
| --- |
| **Input** : var arr=[1,2,3,4,5,6,7,8,9]; |
| **Arrow Function**  var sum=(arr)=>  {  let tot=0;  for(let i=0;i<arr.length;i++)  {  tot+=arr[i];  }  return tot;  }  console.log(sum(arr)); |
| **Output:**  45 |

* 1. Return all the prime numbers in an array

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| --- |
| **Input** : var arr=[5,6,78,23,45,26,75,4]; |
| **Arrow Function**  var prime=(arr)=>  {  let flag;let res=[];  for(let i=0;i<arr.length;i++)  {  flag=true;  if(arr[i]===1) flag=false;  else if(arr[i]>1)  for(let j=2;j<arr[i]-1;j++)  {  if(arr[i]%j===0) flag=false;break;  }  if(flag===true)res.push(arr[i]);  }  return res;  }  console.log(prime(arr)); |
| **Output:** [5, 23, 45, 75] |

* 1. Return all the palindromes in an array

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| --- |
| **Input:** let arr = ['carecar', 1344, 12321, 'did', 'cannot']; |
| **Arrow Function**  var palindrome=(arr)=>{  let op=[];  for(let i=0;i<arr.length;i++)  { let flag=true;  let str=String(arr[i]);  let str1=String(str.split('').reverse().join(''));  if(str!==str1)  flag=false;  if(flag===true) op.push(str); }  return op;  }  console.log(palindrome(arr)); |
| **Output:**  [ 12321, 'did' ] |