1. Do the below programs in anonymous function & IIFE
   1. Print odd numbers in an array using Anonymous function:
2. var odd=function(a){
3. var  res="";
4. for(i=0;i<a.length-1;i++)
5. {
6. if(a[i]%2!==0)
7. {
8. res+=a[i]+" ";
9. }
10. }
11. res+=a[a.length-1];
12. return res;
13. }
14. console.log(odd([1,2,3,4,5]))

output: 1 3 5

Live reload enabled.

Print odd numbers in an array using IIFE:

(function(a){

    var  res="";

    for(i=0;i<a.length-1;i++)

    {

        if(a[i]%2!==0)

        {

            res+=a[i]+" "

        }

    }

    res+=a[a.length-1]

    console.log(res);

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

Output:

1. 3 5 7

b.Convert all the strings to title caps in a string array using Anonymous function:

var str=function (string) {

    var sent = string.toLowerCase().split(" ");

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

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

    }

 sent.join(" ");

 var res="";

 for(let i=0;i<sent.length-1;i++)

 {

     res+=sent[i]+" "

 }

 res+=sent[sent.length-1]

 return res;

 }

 console.log(str("welcome guvi"));

output:

Welcome Guvi

Convert all the strings to title caps in a string array using IIFE:

(function (string) {

    var sent = string.toLowerCase().split(" ");

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

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

    }

 sent.join(" ");

 var res="";

 for(let i=0;i<sent.length-1;i++)

 {

     res+=sent[i]+" "

 }

 res+=sent[sent.length-1]

 console.log(res);

 }) ("welcome guvi");

output:

Welcome Guvi

c.Sum of all numbers in an array using Anonymous function:

var sum =function(a){

    var  res=0;

    for(i=0;i<a.length;i++)

    {

            res+=a[i]

    }

    return res;

 }

console.log(sum([1,2,3,4,5,6]));

output:

21

Sum of all numbers in an array using IIFE:

(function(a){

    var  res=0;

    for(i=0;i<a.length;i++)

    {

            res+=a[i]

    }

    console.log(res);

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

Output:

22

d.Return all the prime numbers in an array using Anonymous function:

var sum =function(a){

    var res="";

    for(i=0;i<a.length;i++)

    {

        var count=0;

        for(j=1;j<=a[i];j++)

        {

            if(a[i]%j===0)

            {

                count++

            }

        }

        if(count==2)

        {

            res+=a[i]+" "

        }

    }

    return res;

}

console.log(sum([1,2,3,4,5,6,7,8,9]));

output:

2 3 5 7

Return all the prime numbers in an array using IIFE:

(function(a){

    var res="";

    for(i=0;i<a.length;i++)

    {

        var count=0;

        for(j=1;j<=a[i];j++)

        {

            if(a[i]%j===0)

            {

                count++

            }

        }

        if(count==2)

        {

            res+=a[i]+" "

        }

    }

    console.log(res);

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

Output: 2 3 5 7 11

e.Return all the palindromes in an array using Anonymous function:

var palin=function(a){

    var res="";

    var ans="";

    for(i=0;i<a.length;i++)

    {

        res+=a[i];

        var count=0

        for(j=0;j<res.length;j++)

        {

            if(res[j]===res[((res.length-1)-j)])

            {

                count++

            }

        }

        if(count===res.length)

        {

            ans+=res+" "

        }

        res="";

    }

    return ans;

}

console.log(palin([1,11,343,200,798,80108,8008]));

output:

1 11 343 80108 8008

Return all the palindromes in an array using IIFE:

(function(a){

    var res="";

    var ans="";

    for(i=0;i<a.length;i++)

    {

        res+=a[i];

        var count=0

        for(j=0;j<res.length;j++)

        {

            if(res[j]===res[((res.length-1)-j)])

            {

                count++

            }

        }

        if(count===res.length)

        {

            ans+=res+" "

        }

        res="";

    }

    console.log(ans);

 }) ([1,11,343,411,575,600,7887,999,11]);

Output:

1. 11 343 575 7887 999 11

f.Return median of two sorted arrays of same size using Anonymous function:

var arr=function(a,b){

    var c=[];

    var n=a.length;

    var p=b.length;

    var i=0;

    var j=0;

    var med=0;

    while(i<n && j<p)

    {

        if(a[i]<b[j])

        {

            c.push(a[i])

            i++

        }

        else

        {

            c.push(b[j])

            j++

        }

    }

     if(i<n)

     {

         for(let k=i;k<n;k++)

         {

             c.push(a[k])

         }

     }

     else if(j<p)

     {

         for(let m=j;m<p;m++)

         {

             c.push(b[m])

         }

     }

     if(c.length%2===0)

     {

         med=(c[(c.length/2)-1]+c[c.length/2])/2

     }

     else

     {

         med=c[Math.floor(c.length/2)]

     }

     return med;

}

console.log(arr([1,2,3,7],[4,5,6,8]));

output:

4.5

Return median of two sorted arrays of same size using IIFE:

(function(a,b){

    var c=[];

    var n=a.length;

    var p=b.length;

    var i=0;

    var j=0;

    var med=0;

    while(i<n && j<p)

    {

        if(a[i]<b[j])

        {

            c.push(a[i])

            i++

        }

        else

        {

            c.push(b[j])

            j++

        }

    }

     if(i<n)

     {

         for(let k=i;k<n;k++)

         {

             c.push(a[k])

         }

     }

     else if(j<p)

     {

         for(let m=j;m<p;m++)

         {

             c.push(b[m])

         }

     }

     if(c.length%2===0)

     {

         med=(c[(c.length/2)-1]+c[c.length/2])/2

     }

     else

     {

         med=c[Math.floor(c.length/2)]

     }

     console.log(med);

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

Output:

4.5

g.Remove duplicates from an array using Anonymous function:

var arr=function(a){

    var b=[];

    var n=a.length;

    for(let i=0;i<n-1;i++)

    {

        for(let j=i+1;j<n;j++)

        {

            if(a[i]===a[j])

            {

                delete a[j]

            }

        }

    }

    for(let i=0;i<a.length;i++)

    {

        if(a[i]%10===Math.floor(a[i]%10))

        {

            b.push(a[i])

        }

    }

    let c=""

    for(let i=0;i<b.length-1;i++)

     {

         c+=b[i]+" ";

    }

    c+=b[b.length-1];

     return c;

    }

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

output:

1 2 3 4

Remove duplicates from an array using IIFE:

(function(a){

    var b=[];

    var n=a.length;

    for(let i=0;i<n-1;i++)

    {

        for(let j=i+1;j<n;j++)

        {

            if(a[i]===a[j])

            {

                delete a[j]

            }

        }

    }

    for(let i=0;i<a.length;i++)

    {

        if(a[i]%10===Math.floor(a[i]%10))

        {

            b.push(a[i])

        }

    }

    let c=""

    for(let i=0;i<b.length-1;i++)

     {

         c+=b[i]+" ";

    }

    c+=b[b.length-1];

     console.log(c);

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

Output: 1 2 3 4

h.Rotate an array by k times using Anonymous function:

var rotate=function(a,k){

    n=a.length;

 c=[];

  d="";

  for(i=0;i<n;i++)

  {

      c[(i+k)%(n)]=a[i]

  }

  for(i=0;i<c.length-1;i++)

  {

      d+=c[i]+" "

  }

  d+=c[c.length-1]

  return d;

}

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

output:

4 5 1 2 3

Rotate an array by k times using IIFE:

(function(a,k){

    n=a.length;

 c=[];

  d="";

  for(i=0;i<n;i++)

  {

      c[(i+k)%(n)]=a[i]

  }

  for(i=0;i<c.length-1;i++)

  {

      d+=c[i]+" "

  }

  d+=c[c.length-1]

  console.log(d);

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

Output: 3 4 5 1 2

1. Do the below programs in arrow functions:

a.Print odd numbers in an array:

var odd=(a)=>{

    var  res="";

    for(i=0;i<a.length-1;i++)

    {

        if(a[i]%2!==0)

        {

            res+=a[i]+" ";

        }

    }

    res+=a[a.length-1];

    return res;

}

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

output: 1 3 5

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

var str=(string)=>{

    var sent = string.toLowerCase().split(" ");

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

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

    }

 sent.join(" ");

 var res="";

 for(let i=0;i<sent.length-1;i++)

 {

     res+=sent[i]+" "

 }

 res+=sent[sent.length-1]

 return res;

 }

 console.log(str("welcome guvi"));

output:

Welcome Guvi

Sum of all numbers in an array:

var sum =(a)=>{

    var  res=0;

    for(i=0;i<a.length;i++)

    {

            res+=a[i]

    }

    return res;

 }

console.log(sum([1,2,3,4,5,6]));

output: 21

Return all the prime numbers in an array:

var sum =(a)=>{

    var res="";

    for(i=0;i<a.length;i++)

    {

        var count=0;

        for(j=1;j<=a[i];j++)

        {

            if(a[i]%j===0)

            {

                count++

            }

        }

        if(count==2)

        {

            res+=a[i]+" "

        }

    }

    return res;

}

console.log(sum([1,2,3,4,5,6,7,8,9]));

output: 2 3 5 7

Return all the palindromes in an array:

var palin=(a)=>{

    var res="";

    var ans="";

    for(i=0;i<a.length;i++)

    {

        res+=a[i];

        var count=0

        for(j=0;j<res.length;j++)

        {

            if(res[j]===res[((res.length-1)-j)])

            {

                count++

            }

        }

        if(count===res.length)

        {

            ans+=res+" "

        }

        res="";

    }

    return ans;

}

console.log(palin([1,11,343,200,798,80108,8008]));

output: 1 11 343 80108 8008

**3.aProblem**:

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

addFive(5);  
addFive(0);  
addFive(-5);

Output:

10  
5  
0

**Solution:**

function addFive(someNumber) {

    let result;

    //if (someNumber > 0) {

      result = someNumber + 5;

    //}

        return result

  }

console.log(addFive(5));

console.log(addFive(0));

console.log(addFive(-5));

**Problem**:

Write a function called “getOpposite”.  
Given a number, return its opposite

Input:

getOpposite(5);  
getOpposite(0);  
getOpposite(-5);

Output:

-5  
0  
5

**Solution:**

function getOpposite(someNumber) {

    let result;

    if (!isNaN(Math.sign(someNumber))) {

      result = someNumber \* (-1);

    }

    return result;

  }

console.log(getOpposite(5));

console.log(getOpposite(0));

console.log(getOpposite(-5));

**Problem**:

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

Examples  
toSeconds(5) ➞ 300

toSeconds(3) ➞ 180

toSeconds(2) ➞ 120

**Solution:**

function toSeconds(min) {

    let result;

      result = min \* 60;

     return result;

  }

console.log(toSeconds(5));

console.log(toSeconds(3));

console.log(toSeconds(2));

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

Examples  
toInteger(“6”) ➞ 6

toInteger(“1000”) ➞ 1000

toInteger(“12”) ➞ 12

**Solution:**

function toInteger(mystr) {

let result;

      result=mystr;

     return result;

  }

console.log(toInteger("6"));

console.log(toInteger("1000"));

console.log(toInteger("12"));

**Problem**

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

Examples  
nextNumber(0) ➞ 1

nextNumber(9) ➞ 10

nextNumber(-3) ➞ -2

**Solution:**

function nextNumber(num) {

let result;

      result=num+1;

     return result;

  }

console.log(nextNumber(0));

console.log(nextNumber(9));

console.log(nextNumber(-3));

**Problem**

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

Examples  
getFirstElement([1, 2, 3]) ➞ 1

getFirstElement([80, 5, 100]) ➞ 80

getFirstElement([-500, 0, 50]) ➞ -500

**Solution:**

function getFirstElement(num) {

let result;

      result=num[0];

     return result;

  }

console.log(getFirstElement([1,2,3]));

console.log(getFirstElement([80, 5, 100]));

console.log(getFirstElement([-500, 0, 50]));

**Problem**

Convert Hours into Seconds

Write a function that converts hours into seconds.

Examples  
hourToSeconds(2) ➞ 7200

hourToSeconds(10) ➞ 36000

hourToSeconds(24) ➞ 86400

**Solution:**

function hourToSecounds(arr) {

let result;

      result=arr\*3600;

     return result;

  }

console.log(hourToSecounds(2));

console.log(hourToSecounds(10));

console.log(hourToSecounds(24));

**Problem**

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

Examples  
findPerimeter(6, 7) ➞ 26

findPerimeter(20, 10) ➞ 60

findPerimeter(2, 9) ➞ 22

**Solution:**

function findPerimeter(num1,num2) {

let result;

      result=(2\*(num1+num2));

     return result;

  }

console.log(findPerimeter(6,7));

console.log(findPerimeter(20,10));

console.log(findPerimeter(2,9));

**Problem**

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

Examples  
lessThan100(22, 15) ➞ true  
// 22 + 15 = 37

lessThan100(83, 34) ➞ false  
// 83 + 34 = 117

**Solution:**

function lessThan100(num1,num2) {

let result;

result=num1+num2;

if(result<100)

{

  return true;

}

else{

     return false;

  }

}

console.log(lessThan100(22,15));

console.log(lessThan100(83,34));

**Problem**

There is a single operator in JavaScript, capable of providing the remainder of a division operation. Two numbers are passed as parameters. The first parameter divided by the second parameter will have a remainder, possibly zero. Return that value.

Examples  
remainder(1, 3) ➞ 1

remainder(3, 4) ➞ 3

remainder(-9, 45) ➞ -9

remainder(5, 5) ➞ 0

**Solution:**

function remainder(num1,num2) {

if(num1%num2===0)

{

  return 0;

}

else{

     return num1;

  }

}

console.log(remainder(1,3));

console.log(remainder(3,4));

console.log(remainder(-9,45));

console.log(remainder(5,5));