**GUVI : Zen Code-Sprints :— JavaScript Functions — Warmup Pbms**

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[Arun Prakash](https://medium.com/@reach2arunprakash?source=post_page-----15973c74b87f----------------------)

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**Problem**:

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

var num = 10;function addFive(num) { return num+5  
  
}var result = addFive(num)

**Problem**:

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

Input:

getOpposite(5);  
getOpposite(0);  
getOpposite(-5);  
getOpposite(“5a”);  
getOpposite(5.5);

Output:

-5  
0  
5  
-1  
-1

var num = 5;function getOpposite(num) {if(Number.isInteger(num)return num\*(-1) else return -1}var result = getOpposite(num)

**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

var min = 5;function toSeconds(min) {return min\*60}var secs = toSeconds(min)

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

Examples  
toInteger(“6”) ➞ 6

toInteger(“1000”) ➞ 1000

toInteger(“12”) ➞ 12

var mystr = "5";function toInteger(mystr) {return parseInt(mystr)}var myint = toInteger(mystr)

**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

var myint = 0;function nextNumber(myint) {return myint+1}var myNextint = nextNumber(myint)

**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

var arr = [1, 2, 3];function getFirstElement(arr) {return arr[0]}var data = getFirstElement(arr)

**Problem**

Convert Hours into Seconds

Write a function that converts hours into seconds.

Examples  
hourToSeconds(2) ➞ 7200

hourToSeconds(10) ➞ 36000

hourToSeconds(24) ➞ 86400

var arr = [1, 2, 3];function hourToSeconds(arr) {arr.forEach( function(val,i){arr[i]= val\*3600}) return arr}var data = hourToSeconds(arr)

**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

function findPerimeter(num1,num2) {return 2\*(num1+num2)}var peri = findPerimeter(6,7)

**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

function lessThan100(num1,num2) {if(num1+num2<100)return true;else return false;}var res = lessThan100(22,15)

**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

function remainder(num1,num2) {return num1%num2}var res = remainder(1,3)

**Problem**

Old macdonald had a farm:

MacDonald is asking you to tell him how many legs can be counted among all his animals. The farmer breeds three species:

turkey = 2 legs  
horse = 4 legs  
pigs = 4 legs

The farmer has counted his animals and he gives you a subtotal for each species. You have to implement a function that returns the total number of legs of all the animals.

Examples  
CountAnimals(2, 3, 5) ➞ 36

CountAnimals(1, 2, 3) ➞ 22

CountAnimals(5, 2, 8) ➞ 50

function CountAnimals(tur,horse,pigs) {return (tur\*2)+(horse\*4)+(pigs\*4)}var legs = CountAnimals(2,3,5)

**Problem**

Frames Per Second  
Create a function that returns the number of frames shown in a given number of minutes for a certain FPS.

Examples  
frames(1, 1) ➞ 60

frames(10, 1) ➞ 600

frames(10, 25) ➞ 15000

function frames(num1,num2) {return num1\*num2\*60}var fps = frames(1,2)

**Problem**

Check if an Integer is Divisible By Five  
Create a function that returns true if an integer is evenly divisible by 5, and false otherwise.

Examples  
divisibleByFive(5) ➞ true

divisibleByFive(-55) ➞ true

divisibleByFive(37) ➞ false

function divisibleByFive(num1) {if(num%5===0)return true;else return false;}var divisible = divisibleByFive(5)

**Problem**:

Write a function called “isEven”.  
Given a number, “isEven” returns whether it is even.  
  
Input:  
isEven(12);  
isEven(0);  
isEven(11);  
isEven(“11h”);

Output:

true  
true  
false  
-1

function isEven(num){  
 // your code here

if(num%2===0)return true;else return false;  
}var even = isEven(5)

**Problem**:  
Write a function called “areBothOdd”.  
Given 2 numbers, “areBothOdd” returns whether or not both of the given numbers are odd.  
  
Input:  
areBothOdd(1, 3);  
areBothOdd(1, 4);  
areBothOdd(2, 3);  
areBothOdd(0, 0);

Output:

true  
flase  
flase  
flase

function areBothOdd(num1, num2){  
 // your code here

if(num1%2!==0&&num2%2!==0)return true;else return false;   
}

**Problem**:  
Write a function called “getFullName”.  
Given a first and a last name, “getFullName” returns a single string with the given first and last names separated by a single space.  
  
Input:

getFullName(“GUVI”, “GEEK”);  
getFullName(“GUVI”, );  
getFullName(, “GEEK”);  
getFullName(“”, “”);

Output:

“GUVI GEEK”  
“GUVI”  
“GEEK”  
“”

function getFullName(firstName, lastName){  
 // your code here

return firstName+” “+lastName  
}

**Problem**:  
Write a function called “getLengthOfWord”.  
Given a word, “getLengthOfWord” returns the length of the given word.  
Input:

getLengthOfWord(“GUVI”);  
getLengthOfWord(“”);  
getLengthOfWord();  
getLengthOfWord(9);

Output:

4  
0  
-1  
-1

function getLengthOfWord(word1){  
 return word1.length();  
}

**Problem**:  
Write a function called “isSameLength”.  
Given two words, “isSameLength” returns whether the given words have the same length.  
Input:  
isSameLength(“GUVI”, “GEEK”);  
Output:  
true

function isSameLength(word1, word2){  
 // your code here

if(word1.length==word2.length)return true;else return false;  
}

**Problem**:

Create a function to calculate the distance between two points defined by their x, y coordinates

console.log(getDistance(100, 100, 400, 300));function getDistance(x1, y1, x2, y2)  
{  
 return Math.sqrt(((x2-x1)\*(x2-x1))+((y2-y1)\*(y2-y1)))  
}

**Problem**:

Write a function called “getNthElement”.  
Given an array and an integer, “getNthElement” returns the element at the given integer, within the given array. If the array has a length of 0, it should return ‘undefined’.  
Input:  
getNthElement([1, 3, 5], 1);  
Output:  
3

function getNthElement(array,n){  
 // your code here

return array[n+1]  
}

**Problem**:

Write a function called “getLastElement”.  
Given an array, “getLastElement” returns the last element of the given array. If the given array has a length of 0, it should return ‘-1’.  
Input:  
getLastElement([1, 2, 3, 4]);  
Output:  
4

function getLastElement(array){  
 // your code here

if(array.length===0)return -1; else return array[array.length-1]  
}

**Problem**:

Write a function called “getProperty”.   
Given an object and a key, “getProperty” returns the value of the property at the given key. If there is no property at the given key, it should return undefined.  
  
var obj = {  
mykey: “value”  
};

Input:  
getProperty(obj,’mykey’);  
getProperty(obj,’dummykey’);  
Output:  
value  
NA

var obj = {  
 mykey: “value”  
};function getProperty(obj, key) {  
 // your code here

return obj.key  
}

**Problem**:

Write a function called “addProperty”.  
Given an object and a key, “addProperty” adds a new property on the given object with a value of true.  
  
var obj = {  
}  
Input:  
addProperty(obj, “mykey”);

Output:

{  
mykey: true  
}

var obj = {  
 mykey: “value”  
};function addProperty(obj, key){  
obj.key=true;

}

**Problem**:

Write a function called “removeProperty”.  
Given an object and a key, “removeProperty” removes the given key from the given object.  
Input:  
removeProperty(obj, “name”);  
Output:  
undefined

function removeProperty(obj, key){  
 // your code here

delete obj.key;  
}

**Problem**:

Return an array, where the first element is the count of positives numbers and the second element is sum of negative numbers.

var arr = [-5, 10, -3, 12, -9, 5, 90, 0, 1];var ar2 = function countPositivesSumNegatives(arr) {

let p=0,n=0,arr1=[]; for(let i=0;i<arr.length;i++){if(arr[i]>0)p++; if(arr[i]<0)n++;}arr1.push(p,n);return arr1;  
   
}console.log(arr);

**Problem**:

Create a function that receives an array of numbers and returns an array containing only the positive numbers

function getPositives(ar)  
{let arr1=[]; for(let i=0;i<ar.length;i++)if(ar[i]>0)arr1.push(ar[i]);return arr1;  
 // your code here  
}var ar = [-5, 10, -3, 12, -9, 5, 90, 0, 1];  
var ar2 = getPositives(ar);console.log(ar2);

**Problem**:

Write a function `powersOfTwo` which will return list of all powers of 2 from 0 to n (where n is an exponent).

n = 0 -> 2⁰ -> [1]

n = 1 -> 2⁰, 2¹ -> [1,2]

n = 2 -> 2⁰, 2¹, 2² -> [1,2,4]

Input:  
powersOfTwo(0)  
powersOfTwo(1)  
powersOfTwo(2)  
Output:  
1  
1,2  
1,2,4

Function power(n){let m=1;for(let i=0;i<n;i++)m\*=2;return m;}

function powersOfTwo(n){

let rarr=[];for(let i=0;i<n;i++){for(let j=0;j<I;j++)rarr[j]=power(j)console.log(rarr)

return res;  
}

**Problem**:

Find the maximum number in an array of numbers

function findMax(ar)  
{

ar.sort(function(a,b){b-a});return ar[0]  
// your code here  
}var ar = [-5, 10, -3, 12, -9, 5, 90, 0, 1];  
var max = findMax(ar);  
console.log(“Max: “, max);

**Problem**:

Print the first 100 prime numbers

printPrimes(100);// Function prints the first nPrimes numbers  
function printPrimes(nPrimes)  
{  
 var n = 0;  
 var i = 2;  
   
 while(n < nPrimes)  
 {  
 if (isPrime(i))  
 {  
 console.log(n, “ → “, i);  
 n++;  
 }  
   
 i++;  
 }  
}// Returns true if a number is prime  
function isPrime(n)  
{for(let i=2;i<n;i++)if(n%i==0)return false;return true;  
 // your code here  
}

**Problem**:

Create a function that will return in an array the first “nPrimes” prime numbers greater than a particular number “startAt”

console.log(getPrimes(10, 100));function getPrimes(nPrimes, startAt)  
{// your code here

for(i=startAt+1;i<=startAt+nprimes;i++)  
 if(isPrime(i))console.log(i)  
}// Returns true if a number is prime  
function isPrime(n)  
{for(let i=2;i<n;i++)if(n%i==0)return false;return true;  
 // your code here  
}

**Problem**:

Reverse a string

var s = reverseString("JavaScript");  
console.log(s);function reverseString(s)  
{return s.split(“”).reverse().join(“”;  
 // your code here   
}

**Problem**:

Create a function that will merge two arrays and return the result as a new array

var ar1 = [1, 2, 3];  
var ar2 = [4, 5, 6];var ar = mergeArrays(ar1, ar2);  
console.log(ar);function mergeArrays(ar1, ar2)  
{  
 var result = [];//this will add the first array to the result array  
for(let el of ar1)  
 {  
 result.push(el);  
 }  
 for(el of ar2)result.push(el)  
 //Some piece of code goes here   
   
 return result;  
}

**Problem**:

Calculate the sum of numbers received in a comma delimited string

console.log(sumCSV(“1.5, 2.3, 3.1, 4, 5.5, 6, 7, 8, 9, 10.9”));function sumCSV(s)  
{  
 // your code here

let arr=s.split(“,”),sum=0

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

sum+=arr[i]

return sum;  
}