

# JAVASCRIPT CHALLENGES

## Equality of three values: 5PTS

Create a function that takes 3 parameters a, b and c. this function must return true if all the three parameters are equal, if not it returns false.

### Example:

```
console.log(equal(1, 2, 1))  /// False
console.log(equal("Test", "Test", "Test"))  /// True
```

## Convert Minutes to seconds: 10PTS

Create a function that takes 1 parameters minutes and convert it to seconds

### Example:

```
console.log(minuteConvert(1))  /// 60s
console.log(minuteConvert(3))  ///180s
```

## Return the Area of a rectangle: 5PTS

Create a function that takes 2 parameters height and width that represent the height and width of a rectangle . this function have to return the area of the rectangle,

### Example:

```
console.log(area(2,2))  /// 4
console.log(area(10,5))  // 50
console.log((area(6,3))  // 18
```

## The next number: 5PTS

Create a function that takes 1 parameter a, an integer and should return the next integer

### Example:

```
console.log(nextInt(1))  /// 2
console.log(next (9))  ///10
```

## Football Points: 10PTS

Create a function that takes 3 parameters: number of wins , number of draws and number of defeats and should return the number of points accumulated by this

team, not that for one win the team get 3pts and for one draw the team get 1pt and for a defeat the team get 0pt.

**Example:**

```
console.log(footballPts(1,2,1))  /// 5pts  
console.log(footballPts(0,0,4))  /// 0pts
```

### Between 100 AND 200: 5PTS

Create a function that takes 1 parameter a and integer and should return true if this integer is between 100 and 200 , if not it should return false.

**Example:**

```
console.log(between(50))  /// false  
console.log (between (120)) ///true
```

### Hours and minutes to seconds: 15PTS

Create a function that takes 2 parameters hours and minutes and convert them to seconds

**Example:**

```
console.log(convertHourMin(1,30))  /// 5400s  
console.log(convertHourMin(0,6))  ///360s
```

### Equality check: 15PTS

Create a function that takes 2 parameters a and b, should return true if the two parameters are equal and with same type

**Example:**

```
console.log(equalityCheck(1,2))  /// false  
console.log(equalityCheck(6,6)  ///true  
console.log((equalityCheck(10,"10"))  // false
```

### Compare Strings by Count of Characters: 10PTS

Create a function that takes 2 parameters a and b which are strings . this function have to return "The first string is taller" if the first string have more characters than the second string, if not it should return "The second string is taller"

**Example:**

```
console.log(compareStrings("Go My Code","test"))  /// "The first string is taller"
```

### Unique Chars count: 15PTS

Create a function that takes 1 string parameter a and should return the count of unique chars used in this string.

#### Example:

```
console.log(uniqueCharsCount("aaaaa")) /// 1  
console.log(uniqueCharsCount("Go My Code")) ///7
```

### Concatenate First And Last Name: 15PTS

Create a function that takes 2 string parameters first name and last name , and should return the full name

#### Example

```
console.log(fullName("john","Doe")) // John Doe
```

### Find the index of an item in an array: 15PTS

Create a function that takes 2 parameters an array and a value, and should return the index of this value in this array (without using the method indexOf of course x ), if the value does not exist in the array the function should return -1

#### Example:

```
console.log(index([2,10,3],2)) /// 0  
console.log(index([0,3,20,15],7)) /// -1
```

### Is in range : isInRange(4,{min:2,max,10}): 15PTS

Create a function that takes 2 parameters an integer a and an object rang containing the attributes min and max ,this function should return true the value of a is in the rang if not it returns false

#### Example:

```
console.log(inRange(10, {min:3,max:20})) /// true  
console.log (inRange(5, {min:12,max:20})) /// false
```

### Max of an array: 15PTS

Create a function that takes 1 parameter an array and should return the maximum value in that array

#### Example:

```
console.log(maxArray([4,2,20,24,18])) /// 24
```

### Convert a number to a month: 10PTS

Create a function that takes 1 integer parameter a and should return the month

corresponding to that number

**Example:**

```
console.log(monthName(1))  /// Janvier  
console.log(monthName(7))  /// Juillet
```

**Factorial: 20PTS**

Create a function that takes 1 integer parameter a and should return the factorial of this number,

Note that factorial of 3:  $3! = 3*2*1 = 6$

Factorial of 6:  $6! = 6*5*4*3*2*1 = 720$

**Example:**

```
console.log(factorial(4))  /// 24
```

**Count Instance of a character in a string : 15PTS**

Create a function that takes 2 parameters a string and a caractere ,this function should return the number of appearance of this character in this string

**Example:**

```
console.log(instanceCount("aaaaa","a"))  /// 5  
console.log(instanceCount("Go My Code","o"))  ///2
```

**Absolute Sum: 15PTS**

Create a function that takes 1 parameter, an array of integers (positive or negative or both) and should return the sum of the absolute value of each element.

**Example:**

```
console.log(absoluteSum([2, -1, 4, 8, 10]))  /// 25  
console.log(absoluteSum([-2,-2,10]))  ///14
```

**Is a number Symmetrical: 20PTS**

Create a function that takes 1 integer parameter a and should return true if the number is symmetrical , if not it should return false.

**Example:**

```
console.log(isSymmetric(333))  /// true  
console.log(isSymmetric(2020))  /// false  
console.log(isSymmetric(1543))  /// false
```

**Reverse the case: 15PTS**

Create a function that takes 1 string parameter a and should return the same string

but with a reversed case, characters in uppercase should be lowercase and character in lowercase should be uppercase.

**Example:**

```
console.log(reverseCase("Go My Code")) // gO mY cODE
```

**Get sum of people budget: 15PTS**

Create a function that takes 1 parameter an array of object in this form :

```
[{name:"mike",budget : "2000$"},{name="sam",budget:"1500$"}]
```

And this function should return the sum of budget of all those people

**Example:**

```
console.log(sumBudget([{name:"mike",budget : "2000$"},{name="sam",budget : "1500$"}])) // 3500$
```

**Remove duplicate in an array 20PTS**

Create a function that takes 1 parameter an array , and should return the same array but without duplicates values of that array.

**Example:**

```
console.log(removeDuplicate([1,5,25,5,2,1])) // [1,5,25,2]
```

**Seven Booms: 15PTS**

Create a function that takes an array of numbers and return "Boom!" if the number 7 appears in the array. Otherwise, return "there is no 7 in the array".

**Example:**

```
console.log(sevenBooms([1,5,86,7])) // " BOOM "  
console.log(sevenBooms([10,35,86,97,56])) // " BOOM "  
console.log(sevenBooms([1,5,86])) // "there is no 7 in the array"
```

**Double Character Swap: 20PTS**

Write a function to replace all instances of character c1 with character c2 and vice versa.

**Example:**

```
console.log(doubelCharSwap("aabbccc", "a", "b")) // "bbaaccc"
```

**find first characters that repeats: 20PTS**

Create a function that takes a string and returns the first character that repeats. If there is no repeat of a character, return "-1".

### Example

```
console.log(doubelCharSwap("Go My Code"))  /// "o"  
console.log(doubelCharSwap("test"))  /// "t"
```

### Calculate the shopping cart price: 15PTS

Create a function that takes an array of object in this form

```
[{product:"milk",quantity:2,price:"100dz"  
,{product:"juice",quantity:1,price:"200dz" }]
```

 this function should returns the total price of this shopping cart

### Example

```
console.log(totalPrice("Go My Code"))  /// "o"  
console.log(doubelCharSwap([[{product:"milk",quantity:2,price:"100dz"  
,{product:"juice",quantity:1,price:"200dz" } ] ]))  /// "400dz"
```

### Get Top Student : 15PTS

Create a function that takes an array of object in this form

```
[{name:"mike",note:15},{name:"john",note : 19 }]
```

 ,this fonction should returns the name of the student with the top note

### Example:

```
console.log(topStudent([[{name:"mike",note:15},{name:"john",note : 19  
} ] ]))  /// "john"
```

### The karaaca's encryption algorithm: 25PTS

Make a function that encrypts a given input with these steps:

Input: "apple"

Step 1: Reverse the input: "elppa"

Step 2: Replace all vowels using the following chart:

a => 0

e => 1

i => 2

o => 2

u => 3

// "1lpp0"

Step 3: Add "aca" to the end of the word: "1lpp0aca"

Output: "1lpp0aca"

### Example:

```
console.log(encrypt("banana")) //0n0n0baca"
```

### Sum of missing values: 25PTS

Create a function that returns the sum of missing numbers.

**Example:**

```
sumMissingNumbers([1, 3, 5, 7, 10]) → 29  
// 2 + 4 + 6 + 8 + 9
```

### Double letters 25PTS

Create a function that receive a string parameter and return true if the string two consecutive similar letters, otherwise it should return false

**Example:**

```
console.log(doubleLetters("test")) //false  
console.log(doubleLetters("loop!")) //true
```

### Reverse 25PTS

Create a function that receive a string parameter and should return the string reversed (without using the fancy js functions of course x))

**Example:**

```
console.log(reverse("gomycode")) //"edocymog"
```

### The reverser 25PTS

Create a function that receive a string parameter and should return the string reversed and in a reversed case

**Example:**

```
console.log(reverser("GoMyCode")) //"EDOcYmOg"
```

Is the word an Isogram: 25PTS

An isogram is a word that has no repeating letters, consecutive or nonconsecutive. Create a function that takes a string and returns either true or false depending on whether or not it's an "isogram".

### Convert to camelCase 25PTS

Using Camel Case (or camelCase) is where the first word is in lower case, and all words after it have their first letter capitalised. Note that there are no spaces in between words!

Create a function that takes a string and returns it back in camelCase.

**Example**

camelCasing("Hello World") → "helloWorld"

**Positive Count, Negative Sum 25PTS**

Create a function that receive an array of integers and should return an object containing the count of positive numbers and the sum of negative numbers

**Example:**

```
console.log(posCountNegSum([2,-2,4,-1])) // {positiveCount : 2 , negativeSum : -3}
```