description
This is an introduction to how challenges on Edabit work. In the Code tab above you'll see a starter functi

```
function hello() {

}
```

All you have to do is type return "hello edabit.com" between the curly braces { } and then click the Check
Create a function that takes two numbers as arguments and returns their sum.

Examples
addition(3, 2) ➞ 5

addition(-3, -6) ➞ -9

addition(7, 3) ➞ 10

Notes
Don't forget to return the result.
If you get stuck on a challenge, find help in the Resources tab.
If you're really stuck, unlock solutions in the Solutions tab.
Write a function that takes an integer minutes and converts it to seconds.

Examples
convert(5) ➞ 300

convert(3) ➞ 180

convert(2) ➞ 120

Notes
Don't forget to return the result.
If you get stuck on a challenge, find help in the Resources tab.
If you're really stuck, unlock solutions in the Solutions tab.
Create a function that takes a number as an argument, increments the number by +1 and returns the res

Examples
addition(0) ➞ 1

addition(9) ➞ 10

addition(-3) ➞ -2

Notes
Don't forget to return the result.
If you get stuck on a challenge, find help in the Resources tab.
If you're really stuck, unlock solutions in the So …

Write a function that takes the base and height of a triangle and return its area.

Examples
triArea(3, 2) → 3

triArea(7, 4) → 14

triArea(10, 10) → 50

Notes
The area of a triangle is: (base * height) / 2
Don't forget to return the result.
If you get stuck on a challenge, find help in the Resources tab.
If you're really st …
Create a function that takes the age in years and returns the age in days.

Examples
calcAge(65) → 23725

calcAge(0) → 0

calcAge(20) → 7300

Notes
Use 365 days as the length of a year for this challenge.
Ignore leap years and days between last birthday and now.
Expect only positive integer inputs.
Fix the code in the code tab to pass this challenge (only syntax errors). Look at the examples below to get

Examples
cubes(3) → 27

cubes(5) → 125

cubes(10) → 1000

Notes
READ EVERY WORD CAREFULLY, CHARACTER BY CHARACTER!
Don't overthink this challenge; it's not supposed to be hard.
Create a function that takes an array containing only numbers and return the first element.

Examples
getFirstValue([1, 2, 3]) → 1

getFirstValue([80, 5, 100]) → 80

getFirstValue([-500, 0, 50]) → -500

Notes

The first element in an array always has an index of 0.

Create a function that takes voltage and current and returns the calculated power.

Examples

circuitPower(230, 10) ➞ 2300

circuitPower(110, 3) ➞ 330

circuitPower(480, 20) ➞ 9600

Notes

Requires basic calculation of electrical circuits (see Resources for info).

Write a function that converts hours into seconds.

Examples

howManySeconds(2) ➞ 7200

howManySeconds(10) ➞ 36000

howManySeconds(24) ➞ 86400

Notes

60 seconds in a minute, 60 minutes in an hour

Don't forget to return your answer.

Create a function that finds the maximum range of a triangle's third edge, where the side lengths are all i

Examples

nextEdge(8, 10) ➞ 17

nextEdge(5, 7) ➞ 11

nextEdge(9, 2) ➞ 10

Notes

(side1 + side2) - 1 = maximum range of third edge.

The side lengths of the triangle are positive integers.

Don't forget to return …

There is a single operator in JavaScript, capable of providing the remainder of a division operation. Two n

Examples

remainder(1, 3) ➞ 1

remainder(3, 4) ➞ 3

remainder(-9, 45) ➞ -9

r ...
Create a function that takes length and width and finds the perimeter of a rectangle.

Examples
findPerimeter(6, 7) ➞ 26

findPerimeter(20, 10) ➞ 60

findPerimeter(2, 9) ➞ 22

Notes
Don't forget to return the result.
If you're stuck, find help in the Resources tab.
If you're really stuck, find solutions in the Solutions tab.
Write a function that returns the string "something" joined with a space " " and the given argument a.

Examples
giveMeSomething("is better than nothing") ➞ "something is better than nothing"

giveMeSomething("Bob Jane") ➞ "something Bob Jane"

giveMeSomething("something") ➞ "something something"

Notes
Assume an input is given.
Fix the code in the code tab to pass this challenge (only syntax errors). Look at the examples below to get

Examples
squared(5) ➞ 25

squared(9) ➞ 81

squared(100) ➞ 10000

Notes
READ EVERY WORD CAREFULLY, CHARACTER BY CHARACTER!
Don't overthink this challenge; it's not supposed to be ...
Create a function that takes a number as its only argument and returns true if it's less than or equal to ze

Examples
lessThanOrEqualToZero(5) ➞ false

lessThanOrEqualToZero(0) ➞ true

lessThanOrEqualToZero(-2) ➞ true

Notes
Don't forget to return the result.
If you get stuck on a challenge, find …
Given an n-sided regular polygon n, return the total sum of internal angles (in degrees).

Examples
sumPolygon(3) → 180

sumPolygon(4) → 360

sumPolygon(6) → 720

Notes
n will always be greater than 2.
The formula (n - 2) x 180 gives the sum of all the measures of the angles of an n-sided polygon.
You are counting points for a basketball game, given the amount of 2-pointers scored and 3-pointers scor

Examples
points(1, 1) → 5

points(7, 5) → 29

points(38, 8) → 100

Notes
N/A
A student learning JavaScript was trying to make a function. His code should concatenate a passed string

Examples
nameString("Mubashir") → "MubashirEdabit"

nameString("Matt") → "MattEdabit"

nameString("javaScript") → …
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

lessThan100(3, 77) → true

Notes
N/A

Mubashir created an infinite loop! Help him by fixing the code in the code tab to pass this challenge. Look

Examples
printArray(1) ➞ [1]

printArray(3) ➞ [1, 2, 3]

printArray(6) ➞ [1, 2, 3, 4, 5, 6]

Notes
READ EVERY WORD CAREFULLY, CHARACTER BY CHARACTER …
Mubashir wants to swap two given numbers!

It is not returning the right values. Can you help him fix it?

a = 100
b = 200
a, b = swap(a, b)
print(a, b) // Should print out "200, 100", but the function prints out "100, 100"

Examples
swap(100, 200) ➞ [200, 100]

swap(44, 33) ➞ [33, 44]

swap(21, 12) ➞ [12, 21]

Notes
N/A
In this challenge, a farmer is asking you to tell him how many legs can be counted among all his animals.

chickens = 2 legs
cows = 4 legs
pigs = 4 legs

The farmer has counted his animals and he gives you a subtotal for each species. You have to implement
JavaScript has a logical operator &&. The && operator takes two boolean values, and returns true if both

Consider a && b:

a is checked if it is true or false.
If a is false, false is returned.
b is checked if it is true or false.
If b is false, false is returned.
Otherwise, true is returned (as both a and …
Create a function that returns true when num1 is equal to num2; otherwise return false.

Examples
isSameNum(4, 8) → false

isSameNum(2, 2) → true

isSameNum(2, "2") → false

Notes
Don't forget to return the result.
Create a function that takes the number of wins, draws and losses and calculates the number of points a

wins get 3 points
draws get 1 point
losses get 0 points

Examples
footballPoints(3, 4, 2) → 13

footballPoints(5, 0, 2) → 15

footballPoints(0, 0, 1) → 0

Notes
Inputs will be numbers gr …
Write a function that takes two integers (hours, minutes), converts them to seconds, and adds them.

Examples
convert(1, 3) → 3780

convert(2, 0) → 7200

convert(0, 0) → 0

Notes
Don't forget to return the result.
If you get stuck on a challenge, find help in the Resources tab.
If you're really stuck, unlock solutions in the …
Fix the code in the Code tab so the function returns true if and only if x is equal to 7.

Examples
isSeven(4) → false

isSeven(9) → false

isSeven(7) → true

Notes

The bug can be hard to find, so look closely!
In this challenge, you must verify the equality of two different given parameters: a and b.

Both the value and the type of parameters need to be tested in order to have a matching equality. The p
Numbers
Strings
Booleans (false or true)
Special values: undefined, null and NaN

What …
Create a function that takes three arguments prob, prize, pay and returns true if prob * prize > pay; other

To illustrate:

profitableGamble(0.2, 50, 9)

... should yield true, since the net profit is 1 (0.2 * 50 - 9), and 1 > 0.

Examples
profitableGamble(0.2, 50, 9) → true

profitableGamble(0.9, 1, 2) → …
Create a function that takes two a boolean variable flag and returns it as a string.

Examples
boolToString(true) → "true"

boolToString(false) → "false"

Notes
Don't forget to return the result.
If you get stuck on a challenge, find help in the Resources tab.
If you're really stuck, unlock solutions in the Solutions tab.
Create a function that returns the given argument, but by using an arrow function.

An arrow function is constructed like so:

arrowFunc=(/parameters/)=>//code here

Examples
arrowFunc(3) → 3

arrowFunc("3") → "3"

arrowFunc(true) → true

Notes

Check the Resources tab for more informantion on arrow functions.
Create a function that returns the number of frames shown in a given number of minutes for a certain FF

Examples
frames(1, 1) ➞ 60

frames(10, 1) ➞ 600

frames(10, 25) ➞ 15000

Notes
FPS stands for "frames per second" and it's the number of frames a computer screen shows every second
Assume the screen produces 60 frames …
Create a function that will handle simple math expressions. The input is an expression in the form of a str

Examples
calculator("23+4") ➞ 27

calculator("45-15") ➞ 30

calculator("13+2-5*2") ➞ 5

calculator("49/7*2-3") ➞ 11

Notes
There will be no brackets in the input line.
No need to calculate mathematical functions (…
Emmy has written a function that returns a greeting to users. However, she's in love with Mubashir, and

Can you help her?

Examples
greeting("Matt") ➞ "Hello, Matt!"

greeting("Helen") ➞ "Hello, Helen!"

greeting(…
Create a function that takes two arguments. Both arguments are integers, a and b. Return true if one of t

Examples
makesTen(9, 10) ➞ true

makesTen(9, 9) ➞ false

makesTen(1, 9) ➞ true

Notes

Don't forget to return the result.

A vehicle needs 10 times the amount of fuel than the distance it travels. However, it must always carry a

Create a function which calculates the amount of fuel it needs, given the distance.

Examples
calculateFuel(15) → 150

calculateFuel(23.5) → 235

calculateFuel(3) → 100

Notes
Dis …

Fix the code in the code tab to pass this challenge (only syntax errors). Look at the examples below to ge

Examples
maxNum(3, 7) → 7

maxNum(-1, 0) → 0

maxNum(1000, 400) → 1000

Notes
READ EVERY WORD CAREFULLY, CHARACTER BY CHARACTER!
Don't overthink this challenge; it's not suppose …
Given two arguments, return an array which contains these two arguments.

Examples
makePair(1, 2) → [1, 2]

makePair(51, 21) → [51, 21]

makePair(512124, 215) → [512124, 215]

Notes
N/A

Create a function that takes two strings as arguments and return either true or false depending on wheth

Examples
comp("AB", "CD") → true

comp("ABC", "DE") → false

comp("hello", "edabit") → false

Notes

Do …
Create a function that returns true if a string is empty and false otherwise.

Examples
isEmpty("") → true

isEmpty(" ") → false

isEmpty("a") → false

Notes
A string containing only whitespaces " " does not count as empty.
Don't forget to return the result.
If you get stuck on a challenge, find help in the Resources tab.
If …
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

Notes
Don't forget to return the result.
If you get stuck on a challenge, find help in the Resources tab.
If you're really stuck, unlo …
Create a function that takes an integer and returns true if it's divisible by 100, otherwise return false.

Examples
divisible(1) → false

divisible(1000) → true

divisible(100) → true
Notes
Don't forget to return the result.
If you get stuck on a challenge, find help in the Resources tab.
If you're really stuck, unlock solu …
Write a function that returns the length of a string. Make your function recursive.

Examples
length("apple") → 5

length("make") → 4

length("a") ➞ 1

length("") ➞ 0

Notes
Check the Resources tab for info on recursion.
Given two integers, a and b, return true if a can be divided evenly by b. Return false otherwise.

Examples
dividesEvenly(98, 7) ➞ true
// 98/7 = 14

dividesEvenly(85, 4) ➞ false
// 85/4 = 21.25

Notes
a will always be greater than or equal to b.
Create a function that takes a string and returns it as an integer.

Examples
stringInt("6") ➞ 6

stringInt("1000") ➞ 1000

stringInt("12") ➞ 12

Notes
All numbers will be whole.
All numbers will be positive.
Create a function that calculates the area of a rectangle. If the arguments are invalid, your function must

Examples
area(3, 4) ➞ 12

area(10, 11) ➞ 110

area(-1, 5) ➞ -1

area(0, 2) ➞ -1

Notes
N/A
In this series we're going to see common redundancies and superfluities that make our code unnecessari

In line with the spirit of the series, we can summarize the general rules of minimalist code in two simple
 Keep your code clean and …
Given two strings, firstName and lastName, return a single string in the format "last, first".

Examples
concatName("First", "Last") → "Last, First"

concatName("John", "Doe") → "Doe, John"

concatName("Mary", "Jane") → "Jane, Mary"

Notes
Don't forget to return the result.
If you get stuck on a challenge, find help in the R ...
The challenge is to try and fix this buggy code, given the inputs true and false. See the examples below fo

Examples
has_bugs(true) → "sad days"

has_bugs(false) → "it's a good day"

Notes
Don't overthink this challenge (look at the syntax and correct it).
Create a function that evaluates an equation.

Examples
eq("1+2") → 3

eq("6/(9-7)") → 3

eq("3+2-4") → 1

Notes
Don't print, return a value.
Return the value, not the equation.
The method used to solve this challenge should not be used in practice. However, it's important to be aw
Create a function that takes an equation (e.g. "1+1"), and returns the answer.

Examples
equation("1+1") → 2

equation("7*4-2") → 26

equation("1+1+1+1+1") → 5

Notes
Supported operators are +, -, and *.
According to the lodash documentation, _.drop creates a slice of an array with n elements dropped from

Your challenge is to write your own version using vanilla JavaScript.

Examples
drop([1, 2, 3], 1) → [2, 3]

drop([1, 2, 3], 2) → [3]

drop([1, 2, 3], 5) → []

drop([1, 2, 3], 0) → [1, 2, 3]

Notes
Do not at …
Given an object containing counts of both upvotes and downvotes, return what vote count should be dis

Examples
getVoteCount({ upvotes: 13, downvotes: 0 }) → 13

getVoteCount({ upvotes: 2, downvotes: 33 }) → -31

getVoteCount({ upvotes: 132, downv …
Create a function that takes a number as an argument and returns negative of that number. Return nega

Examples
returnNegative(4) → -4

returnNegative(15) → -15

returnNegative(-4) → -4

returnNegative(0) → 0

Notes
N/A
Create a function that takes an angle in radians and returns the corresponding angle in degrees.

Examples
radiansToDegrees(1) → 57.29577951308232

radiansToDegrees(20) → 1145.9155902616465

radiansToDegrees(50) → 2864.7889756541163

Notes
N/A
Write a function to reverse an array.

Examples

reverse([1, 2, 3, 4]) ➞ [4, 3, 2, 1]

reverse([9, 9, 2, 3, 4]) ➞ [4, 3, 2, 9, 9]

reverse([]) ➞ []

Notes
Don't forget to return the result.
If you get stuck on a challenge, find help in the Resources tab.
If you're really stuck, unlock solutions in the Solutions tab.
Write a function that checks whether a person can watch an MA15+ rated movie. One of the following tw

The person is at least 15 years old.
They have parental supervision.

The function accepts two parameters, age and isSupervised. Return a boolean.

Examples
acceptIntoMovie(14, true) …
Help fix all the bugs in the function incrementItems! It is intended to add 1 to every element in the array!

Examples
incrementItems([0, 1, 2, 3]) ➞ [1, 2, 3, 4]

incrementItems([2, 4, 6, 8]) ➞ [3, 5, 7, 9]

incrementItems([-1, -2, -3, -4]) ➞ [0, -1, -2, -3]

Notes
Make sure to read every line carefully.
A bartender is writing a simple program to determine whether he should serve drinks to someone. He on

Given the person's age, and whether break time is in session, create a function which returns whether he

Examples
shouldServeDrinks(17 …
Scientists have discovered that in four decades, the world will EXPLODE! It will also take three decades to

You must calculate the number of people there will be in three decades from now.

The variable population is the world population n …
Write a template string according to the following example:

Example
const a = "John";
const b = "Joe";
const c = "Jack";

const template = "your template string" → "Their names were: John, Joe and Jack."

Tips
A template string is a string that uses Dollar sign and curly braces inside a backticks ${} as a placeholder th
In the Code tab you will find code that is missing a single character in order to pass the tests. However, yo

Write five adder functions:
add2(x) should return 2 + x.
add3(x) should return 3 + x.
add5(x) should return 5 + x.
ad …
The ternary operator (sometimes called Conditional Expressions) in JavaScript is an alternative to the if...

It is written in the format:

condition ? resultiftrue : resultiffalse

Ternary operators are often more compact than multi-line if statements, and are useful for simple condit

For exa …
Check the principles of minimalist code in the [intro to the first challenge] (https://edabit.com/challenge/

In the Code tab you will find a code that is missing a single character in order to pass the tests. However,
Given a string, return true if its length is even or false if the length is odd.

Examples
oddOrEven("apples") → true
// The word "apples" has 6 characters.
// 6 is an even number, so the program outputs true.

oddOrEven("pears") → false
// "pears" has 5 letters, and 5 is odd.
// Therefore the program outputs false.

oddOrEv …
You can assign variables from arrays like this:

const arr = [1, 2, 3, 4, 5, 6]
let a = arr[0]
let b = arr[1]

console.log(a) // outputs 1
console.log(b) // outputs 2

With ES6, you can assign variables from arrays in a much more succinct way. Create variables a and b fro
Create a function that accepts a measurement value in inches and returns the equivalent of the measure

Examples
inchesToFeet(324) → 27

inchesToFeet(12) → 1

inchesToFeet(36) → 3

Notes
If inches are under 12, return 0.
12 inches = 1 foot.
I have a bucket containing an amount of navy blue paint and I'd like to paint as many walls as possible. Cr

n is the number of square meters I can paint.
w and h are the widths and heights of a single w …
Create a function that takes a base number and an exponent number and returns the calculation.

Examples
calculateExponent(5, 5) → 3125

calculateExponent(10, 10) → 10000000000

calculateExponent(3, 3) → 27

Notes
All test inputs will be positive integers
Don't forget to return the result.
If you get stuck on a challenge, fi …
Create a function that accepts an array and returns the last item in the array.

Examples
getLastItem([1, 2, 3]) → 3

getLastItem(["cat", "dog", "duck"]) → "duck"

getLastItem([true, false, true]) → true

Notes
Don't forget to return the result.
If you get stuck on a challenge, find help in the Resources tab.
If you're reall …
You need to create two functions to substitute toString() and parseInt(); A function called intToString() th

Examples:
intToString(4) → "4"

stringToInt("4") → 4

intToString(29348) ➝ "29348"

Notes
You will get bonus p …
Create a function that returns how many possible outcomes can come from a certain number of switche

Examples
posCom(1) ➝ 2

posCom(3) ➝ 8

posCom(10) ➝ 1024

Notes
All numbers will be whole and positive.
Create a function that calculates the chance of being an imposter. The formula for the chances of being a

Examples
imposterFormula(1, 10) ➝ "10%"

impo …
A leap year happens every four years, so it's a year that is perfectly divisible by four. However, if the year

Write a function that determines if the year is a leap year or not.

Examples
leapYear(2020) ➝ true

leapYear(2021) ➝ false

leapYear(1968) …
I'd like to calculate how long on average I've lived in a single house.

Given a person's age and the number of times they've moved house as moves, return the average numbe

Examples
yearsInOneHouse(30, 1) ➝ 15

yearsInOneHouse(15, 2) ➝ 5

yearsInOneHouse(80, 0) ➝ 80

No …
Write a function that returns true if a year is a leap, otherwise return false.

A year is a "leap year" if it lasts 366 days, instead of 365 in a typical year. That extra day is added to the e

A leap year occurs every four years, and will take place if the year is a multiple o …
Create a function that takes a word and returns the new word without including the first character.

Examples
newWord("apple") → "pple"

newWord("cherry") → "herry"

newWord("plum") → "lum"

Notes
The input is always a valid word.
Due to a programming concept known as truthiness, certain values can be evaluated to (i.e. take the plac

Create a function that returns the opposite of the given boolean, as a number.

Examples
flipBoo …
Create a function that takes a name and returns a greeting in the form of a string. Don't use a normal fun

Examples
helloName("Gerald") → "Hello Gerald!"

helloName("Tiffany") → "Hello Tiffany!"

helloName("Ed") → "Hello Ed!"

Notes
The input is always a name (as string).
Don't forget the exclam …
Create a function that takes a number as an argument and returns "even" for even numbers and "odd" fo

Examples
isEvenOrOdd(3) → "odd"

isEvenOrOdd(146) → "even"

isEvenOrOdd(19) → "odd"

Notes
Dont forget to return the result.
Input will always be a valid integer.
Expect negative integers (whole numbers).
Test …
Éowyn has written the function isOdd() to check if a given number is odd or not. Unfortunately, the funct

function isOdd(num){

```
  ret n % 19 += 123;
}
```

Examples
isOdd(-5) → true

isOdd(25) → true

isOdd(0) → false

Notes
All the inputs will onl …
Here's an image of four models. Some of the cubes are hidden behind other cubes. Model one consists o

Stack the Boxes

Write a function that takes a number n and returns the number of stacked boxes in a model n levels high

Examples
stackBoxes …
Write a function that accepts base (decimal), height (decimal) and shape ("triangle", "parallelogram") as

Examples
areaShape(2, 3, "triangle") → 3

areaShape(8, 6, "parallelogram") → 48

areaShape(2.9, 1.3, "parallelogram") → 3.77

Notes
Area of a triangle is 0.5 * b * h
Area of …
Create a function that takes an array of numbers or letters and returns a string.

Examples
arrayToString([1, 2, 3, 4, 5, 6]) → "123456"

arrayToString(["a", "b", "c", "d", "e", "f"]) → "abcdef"

arrayToString([1, 2, 3, "a", "s", "dAAAA"]) → "123asdAAAA"

Notes
N/A
Create a function to concatenate two integer arrays.

Examples
concat([1, 3, 5], [2, 6, 8]) → [1, 3, 5, 2, 6, 8]

concat([7, 8], [10, 9, 1, 1, 2]) → [7, 8, 10, 9, 1, 1, 2]

concat([4, 5, 1], [3, 3, 3, 3, 3]) → [4, 5, 1, 3, 3, 3, 3, 3]

Notes
Don't forget to return the result.
See Resources tab for more info.
Create a function that takes an array and a string as arguments and returns the index of the string.

Examples
findIndex(["hi", "edabit", "fgh", "abc"], "fgh") → 2

findIndex(["Red", "blue", "Blue", "Green"], "blue") → 1

findIndex(["a", "g", "y", "d"], "d") → 3

findIndex(["Pineapple", "Orange", "Grape", "Apple"], "Pineappl …
Given an index and an array, return the value of the array with the given index.

Examples
valueAt([1, 2, 3, 4, 5, 6], 10 / 2) → 6

valueAt([1, 2, 3, 4, 5, 6], 8.0 / 2) → 5

valueAt([1, 2, 3, 4], 6.535355314 / 2) → 4

Notes
Math.floor() can be helpful.
Create a function that finds the index of a given item.

Examples
search([1, 5, 3], 5) → 1

search([9, 8, 3], 3) → 2

search([1, 2, 3], 4) → -1

Notes
If the item is not present, return -1.
Fix the code in the code tab to pass this challenge (only syntax errors). Look at the examples below to get

Examples
sumArray([1, 2, 3, 4, 5]) → 15

sumArray([-1, 0, 1]) → 0

sumArray([0, 4, 8, 12]) ➞ 24

Notes
READ EVERY WORD CAREFULLY, CHARACTER BY CHARACTER!
Don't overthink this ch …
Create a function that searches for the index of a given item in an array. If the item is present, it should re

Examples
search([1, 2, 3, 4], 3) ➞ 2

search([2, 4, 6, 8, 10], 8) ➞ 3

search([1, 3, 5, 7, 9], 11) ➞ -1

Notes
If the item is not present, return -1.
The given array …
Create a function that returns a number, based on the string provided. Here is a list of all digits (if you are

String	Number
one	1
two	2
three	3
four	4
five	5
six	6
seven	7
eight	8

....

Write a function to check if an array contains a particular number.

Examples

check([1, 2, 3, 4, 5], 3)
→ true

check([1, 1, 2, 1, 1], 3)
→ false

check([5, 5, 5, 6], 5) →
true

check([], 5)
→ false

Notes
Don't
forget to

hasSpaces("hello, world") → true

hasSpaces(" ") → true

hasSpaces("") → false

hasSpaces(",./!@#") → false

Notes
An empty string does not contain any spaces.
Try doing this without RegEx.
Kinetic energy can be calculated with the following formula:

$KE = 1/2mv^2$

m is mass in kg
v is velocity in m/s
KE is kinetic energy in J

Return the Kinetic Energy in Joules, given the mass and velocity. For the purposes of this challenge, round

Examples
kineticEnergy(60, 3) ➞ 270

kineticEn …
Create a function that takes an object argument sizes (contains width, length, height keys) and returns th

Examples
volumeOfBox({ width: 2, length: 5, height: 1 }) ➞ 10

volumeOfBox({ width: 4, length: 2, height: 2 }) ➞ 16

volumeOfBox({ width: 2, length: 3, height: 5 }) ➞ 30

Notes
Don't forget to retur …
The Math.abs() function returns the absolute value of a number. This means that it returns a number's po

Create a function that recreates this functionality.

Examples
absolute(-1.217197940) ➞ 1.21719794

absolute(-12.1320) ➞ 12.132

absolute(-544.0) ➞ 544

ab …
Create a function that takes a string (a random name). If the last character of the name is an "n", return t

Examples
isLastCharacterN("Aiden") ➞ true

isLastCharacterN("Piet") ➞ false

isLastCharacterN("Bert") ➞ false

isLastCharacterN("Dean") ➞ true

Notes
The function must return a boolean val …
In the Code tab you will find code that is missing a single character in order to pass the tests. However, y

Write a function that returns the strings:
both if both given booleans a and b are true.

first if only a is true. …
Create a function that takes two numbers num1, num2, and an array arr and returns an array containing

Examples
arrBetween(3, 8, [1, 5, 95, 0, 4, 7]) → [5, 4, 7]

arrBetween(1, 10, [1, 10, 25, 8, 11, 6]) → [8, 6]

arrBetween(7, 32, [1, 2, 3, 78]) → []

Notes
N/A
The 50-30-20 strategy is a simple way to budget, which involves spending 50% of after-tax income on ne

Given the after-tax income as ati, what you are supposed to do is to make a function that will return an o
Create a function that returns the number of arguments it was called with.

Examples
numArgs() → 0

numArgs("foo") → 1

numArgs("foo", "bar") → 2

numArgs(true, false) → 2

numArgs({}) → 1

Notes
If you get stuck on a challenge, find help in the Resources tab.
If you're really stuck, unlock solutions in the Solutions tab.
The packaging system is running wild! The candy is lying loose all over in the warehouse, the cereal is mis

The packaging machine is running the getContainer() function to retrieve the container of …
Some basic arithmetic operators are +, -, *, /, and %. In this challenge you will be given three parameters

Examples
operate(1, 2, "+") → 3
// 1 + 2 = 3

operate(7, 10, "-") → -3
// 7 - 10 = -3

operate(20, 10, "%") → 0
// 20 % 10 = 0

Notes

There will not be …
Given two arrays, which represent two sandwiches, return whether both sandwiches use the same type

Examples
hasSameBread(
  ["white bread", "lettuce", "white bread"],
  ["white bread", "tomato", "white bread"]
) → true

hasSameBread(
  ["brown bread …
Create a function that takes a positive integer n and returns the nth "star number".

A star number is a centered figurate number a centered hexagram (six-pointed star), such as the one that

star numbers for 1, 2 and 3

Examples
starNumber(2) → 13
// n = 2
// 2nd star number = 13

starNumber(3 …
Create a function that returns the total number of parameters passed in.

Examples
numberArgs("a", "b", "c") → 3

numberArgs(10, 20, 30, 40, 50) → 5

numberArgs(x, y) → 2

numberArgs() → 0

Notes
How can you express the input parameter so it takes a variable number of arguments?
Check the Resources tab for additional info.
Luke Skywalker has family and friends. Help him remind them who is who. Given a string with a name, re

Person	Relation
Darth Vader	father
Leia	sister
Han	brother in law
R2D2	droid

Examples

relationToLuke("Darth Vader") → "Luke, I am your father."

relationToLuk …
Create a function that takes an array of integers and strings. Convert integers to strings and return the ne

Examples
parseArray([1, 2, "a", "b"]) → ["1", "2", "a", "b"]

parseArray(["abc", 123, "def", 456]) → ["abc", "123", "def", "456"]

parseArray([1, 2, 3, 17, 24, 3, "a", "123b"]) → ["1", "2", "3", "17", "24", " …
Create a function that takes a string; we'll say that the front is the first three characters of the string. If th

Examples
frontThree("Python") → "PytPytPyt"

frontThree("Cucumber") → CucCu …
Create a function that takes an object as an argument and returns a string with facts about the city. The (

name
population
continent

The string should have the following format: X has a population of Y and is situated in Z (where X is the ci
Create a function that takes an array and returns the types of values (data types) in a new array.

Examples
arrayValuesTypes([1, 2, "null", []])
→ ["number", "number", "string", "object"]

arrayValuesTypes(["214", true, false, 2, 2.15, [], null])
→ ["string", "boolean", "boolean", "number", "number", "object", "object"]

ar …
Create a function that takes in a word and determines whether or not it is plural. A plural word is one tha

Examples
isPlural("changes") → true

isPlural("change") → false

isPlural("dudes") → true

isPlural("magic") → false

Notes
Don't forget to return the result.

Remember that return true (boolean) is not t …
Create a function that takes a string and returns the concatenated first and last character.

Examples
firstLast("ganesh") ➞ "gh"

firstLast("kali") ➞ "ki"

firstLast("shiva") ➞ "sa"

firstLast("vishnu") ➞ "vu"

firstLast("durga") ➞ "da"

Notes
There is no empty string.
Create a function that takes as a parameter an array of "stringified" numbers and returns an array of num

Example:
["1", "3", "3.6"] ➞ [1, 3, 3.6]

Examples
toNumberArray(["9.4", "4.2"]) ➞ [9.4, 4.2]

toNumberArray(["91", "44"]) ➞ [91, 44]

toNumberArray(["9.5", "8.8"]) ➞ [9.5, 8.8]

Notes
Some inputs are floats.
Create a function that determines whether or not it's possible to split a pie fairly given these three param

Total number of slices.
Number of recipients.
How many slices each person gets.

The function will be in this form:

equalSlices(total slices, no. recipients, slices each)

Examples
equalSlices(11, 5, 2) ➞ true …
Write a function that stutters a word as if someone is struggling to read it. The first two letters are repea

Examples
stutter("incredible") ➞ "in... in... incredible?"

stutter("enthusiastic") ➞ "en... en... enthusia …

There is an easy way to assign to array values to the nth index by using the Rest element.

var [head, tail] = [1, 2, 3, 4]

console.log(head) // outputs 1
console.log(tail) // outputs 2

But how could I make tail = [2, 3, 4] instead of tail = 2?

Notes
Check the Resources tab for more examples.
Given a fraction as a string, return whether or not it is greater than 1 when evaluated.

Examples
greaterThanOne("1/2") ➞ false

greaterThanOne("7/4") ➞ true

greaterThanOne("10/10") ➞ false

Notes
Fractions must be strictly greater than 1 (see example #3).
For this challenge, you will NOT be given a string. Your task isn't to add "Do not" before the given string. I

Examples
reversePsychology("wash the dishes") ➞ "Do not wash the dishes."

reversePsy …

Create a function that takes in a current mood and return a sentence in the following format: "Today, I a

Examples
moodToday("happy") ➞ "Today, I am feeling happy"

moodToday("sad") ➞ "Today, I am feeling sad"

moodToday() ➞ "Today, I …
You can assign variables from arrays like this:

arr = [1, 2, 3, 4, 5, 6, 7, 8]
first = arr[0]
second = arr[1]
third = arr[2]
other = arr.slice(3)

console.logt(first) ➞ outputs 1
console.logt(second) ➞ outputs 2

console.logt(third) ➞ outputs 3
console.logt(other) ➞ outputs [4, 5, 6, 7, 8]

Create variables first, second, t …
Create a function which validates whether a given number exists, and could represent a real life quantity

Examples
validStrNumber("3.2") ➞ true

validStrNumber("324") ➞ true

validStrNumber("54..4") ➞ false

validStrNumber("number") ➞ false

Notes
Accept numbers such as .5 and 0003.
Create a function that takes a string txt and a number n and returns the repeated string n number of time

If given argument txt is not a string, return Not A String !!

Examples
repeatString("Mubashir", 2) ➞ "MubashirMubashir"

repeatString("Matt", 3) ➞ "MattMattMatt"

repeatString(1990, 7) ➞ "Not A String !!"

Notes
Don' …
Create a function that returns the number of syllables in a simple string. The string is made up of short re

Examples
countSyllables("Hehehehehehe") ➞ 6

countSyllables("bobobobobobobobo") ➞ 8

countSyllables("NANANA") ➞ 3

Notes
For simplicity, please note t …
Levers are simple machines with a rigid beam and a fulcrum. From the picture below, you can see that th

In a first class lever, the fulcrum is situated in the middle with the effort and the load being positioned op
In a second class le …
Create a function that takes an array of two numbers and checks if the square root of the first number is

Examples
checkSquareAndCube([4, 8]) ➝ true

checkSquareAndCube([16, 48]) ➝ false

checkSquareAndCube([9, 27]) ➝ true

Notes
Remember to return either true or false.
All array ...
Given the radius of a circle and the area of a square, return true if the circumference of the circle is great

Examples
circleorsquare(16, 625) ➝ True

circleorsquare(5, 100) ➝ False

circleorsquare(8, 144) ➝ T ...
Check the principles of minimalist code in the [intro to the first challenge] (https://edabit.com/challenge,

In the Code tab you will find a code that is missing a single character in order to pass the tests. However,
Create a function that returns the ASCII value of the passed in character.

Examples
ctoa("A") ➝ 65

ctoa("m") ➝ 109

ctoa("[") ➝ 91

ctoa("\") ➝ 92

Notes
Don't forget to return the result.
If you get stuck on a challenge, find help in the Resources tab.
If you're really stuck, unlock solutions in the Solutions tab.
You call your spouse in anger and a "little" argument takes place. Count the total amount of insults used.

Examples
totalAmountAdjectives({ a: "moron" }) ➝ 1

totalAmountAdjectives({ a: "idiot", b: "idiot", c: "idiot" }) ➝ 3

totalAmountAdjectives({ a: "mo ...
Write a function that validates whether two strings are identical. Make it case insensitive.

Examples

match("hello", "hELLo") → true

match("motive", "emotive") → false

match("venom", "VENOM") → true

match("mask", "mAskinG") → false

Notes
N/A
Using basic object destructuring you can assign variables name and email:

let { name, email } = { name: "John", email: "john@example.com" }

console.log(name) // "John"
console.log(email) // "john@example.com"

What if there were more properties but you didn't want to write variables for all them and just wanted t
You can assign variables from arrays with destructuring like this:

const arr = ["eyes", "nose", "lips", "ears"]
let [eyes, nose, lips, ears] = arr

But you can also skip over items in the array being destructured.

Notes
Check the Resources tab for more examples.
Create a function which returns the length of a string, WITHOUT using String.length property.

Examples
length("Hello World") → 11

length("Edabit") → 6

length("wash your hands!") → 16

Notes
N/A
Create a function that takes a number and return an array of three numbers: half of the number, quarter

Examples
halfQuarterEighth(6) → [3, 1.5, 0.75]

halfQuarterEighth(22) → [11, 5.5, 2.75]

halfQuarterEighth(25) → [12.5, 6.25, 3.125]

Notes
The order of the array is: half, quart ...
You will need to write three unfinished logic gates. Continue to write the three logic gates: AND, OR, and

Examples
AND(1, 1) → 1
AND(0, 0) → 0

OR(1, 0) → 1
OR(1, 1) → 1

NOT(0) → 1
NOT(1) → 0

Notes
Check the Resources tab for some help.
Write a function that returns true if k^k == n for input (n, k) and return false otherwise.

Examples
kToK(4, 2) → true

kToK(387420489, 9) → true
// 9^9 == 387420489

kToK(3124, 5) → false

kToK(17, 3) → false

Notes
The ^ operator refers to exponentiation operation, not the bitwise XOR operation.
const obj = { two : 2 }

var { one, two } = obj

console.log(one) // outputs undefined

Sometimes an object will be missing properties we are expecting. We can avoid undefined errors by using
Create a function that takes a whole number as input and returns the shape with that number's amount

Inputs	Outputs
1	"circle"
2	"semi-circle"
3	"triangle"
4	"square"
5	"pentagon"
6	"hexagon"

7 | "heptagon"
8 | "octagon"
9 | "nonagon"
 …
Create a function that takes an array with numbers and return an array with the elements multiplied by t

Examples
getMultipliedArr([2, 5, 3]) → [4, 10, 6]

getMultipliedArr([1, 86, -5]) → [2, 172, -10]

getMultipliedArr([5, 382, 0]) → [10, 464, 0]

Notes
N/A
Create a function that takes an array of words and transforms it into an array of each word's length.

Examples
wordLengths(["hello", "world"]) → [5, 5]

wordLengths(["Halloween", "Thanksgiving", "Christmas"]) → [9, 12, 9]

wordLengths(["She", "sells", "seashells", "down", "by", "the", "seashore"]) → [3, 5, 9, 4, 2, 3, 8]

N …
Create a program that will take two arrays of integers, a and b. Each array will consist of 3 positive intege

For example, if the parameters passed are ([2, 2, 3], [5, 4, 1]), the volume of a is 12 and the volume of b i
Create a function that checks if the argument is an integer or a string. Return "int" if it's an integer and "s

Examples
intOrString(8) → "int"

intOrString("Hello") → "str"

intOrString(9843532) → "int"

Notes
Input will either be an integer or a string.
Create a function that takes a number n and returns the nth even number beginning with 0 as the first.

Examples
nthEven(1) → 0
// 0 is first even number

nthEven(2) → 2
// 2 is second even number

nthEven(100) ➝ 198

Notes
N/A
Create a function that takes two numbers and returns their sum as a binary string.

Examples
addBinary(1, 1) ➝ "10"

addBinary(1, 2) ➝ "11"

addBinary(4, 5) ➝ "1001"

Notes
Remember to return the converted result as a string.
Check the resources tab in case you are stuck :)
A taxi journey costs $3 for the first kilometer travelled. However, all kilometers travelled after that will co

Create a function which returns the distance that the taxi must've travelled, given the cost as a paramete

Examples
journeyDistance(3) ➝ 1
// The first kilometer costs $3

journeyDistance(9) ➝ 4
// T …
Create a function that has some arguments and returns the type of the fifth argument. In case the argun

Examples
fifth(1, 2, 3, 4, 5) ➝ "number"

fifth("a", 2, 3, true, "five") ➝ "string"

fifth() ➝ "Not enough arguments"

Notes
N/A
Write a function that takes an integer and:
If the number is a multiple of 3, return "Hello".
If the number is a multiple of 5, return "World".
If the number is a multiple of both 3 and 5, return "Hello World".

Examples
helloWorld(3) ➝ "Hello"

helloWorld(5) ➝ "World"

helloWorld(15) → "Hello World"

Notes
Don't forget to r …
Tom is a very methodic guy that loves geometry and pizza: he loves them so much that, before eating a p

You are given the two parameters that Tom measured:

radius
height

He tells you that if you multip …
Create a function that takes the number of daily average recovered cases recovers, daily average newCas

Examples
endCorona(4000, 2000, 77000) → 39

endCorona(3000, 2000, 50699) → 51

endCorona(30000, 25000, 390205) → 79

Notes
The numb …
Write two functions:

toInt() : A function to convert a string to an integer.
toStr() : A function to convert an integer to a string.

Examples
toInt("77") → 77

toInt("532") → 532

toStr(77) → "77"

toStr(532) → "532"

Notes
Don't forget to return the result.
If you get stuck on a challenge, find help in the Resources tab.
 …
A student learning JavaScript was trying to make a function that sorts all the letters of a string, but their c

Spot and fix the error(s) in the code to make the function work.

Examples

sortWord("dcba") → "abcd"

sortWord("Unpredictable") → "Uabcdeeilnprt"

sortWord("pneumonoult …
Create a function that takes a string and changes the word amazing to not amazing. Return the string wit

Examples
amazingEdabit("edabit is amazing.") → "edabit is amazing."

amazingEdabit("Mubashir is amazing.") → "Mubashir is not amazing."

amazingEdabit("Infinity is …
Create a function that returns Burp with num "r"s in it.

Examples
longBurp(3) → "Burrrp"

longBurp(5) → "Burrrrrp"

longBurp(9) → "Burrrrrrrrrp"

Notes
Expect num to always be >= 1.
Remember to use a capital "B".
Don't forget to return the result.
Create a function that inverts the rgb values of a given tuple.

Examples
colorInvert([255, 255, 255]) → [0, 0, 0]
// (255, 255, 255) is the color white.
// The opposite is (0, 0, 0), which is black.

colorInvert([0, 0, 0]) → [255, 255, 255]

colorInvert([165, 170, 221]) → [90, 85, 34]

Notes
255 is the max value of a single …
Create a function that takes a string and returns a string with spaces in between all of the characters.

Examples
spaceMeOut("space") → "s p a c e"

spaceMeOut("far out") → "f a r o u t"

spaceMeOut("elongated musk") → "e l o n g a t e d m u s k"

Notes
Treat a space as its own character (i.e. leave three spaces between …
You can assign variables from nested arrays like this:

const arr = ["cars", "planes", ["trains", ["motorcycles"]]]

let trans1 = arr[0]
let trans2 = arr[1]
let trans3 = arr2
let trans4 = arr2[0]

console.log(trans1) // outputs "cars"
console.log(trans2) // outputs "planes"
console.log(trans3) // outputs "trains"
console.log …
There are three methods (exclude compile) that you can use with regular expression literals. Use these t

Notes
Do not use the same method twice.
Do not use String methods that accept regular expre …
For each of the 6 coffee cups I buy, I get a 7th cup free. In total, I get 7 cups. Create a function that takes

Examples
totalCups(6) ➞ 7

totalCups(12) ➞ 14

totalCups(213) ➞ 248

Notes
Number of cups I bought + number of cups I got for free.
Only …
You can assign variables from arrays like this:

arr = [1, 2, 8]
first, , last = arr

first = lst[0]

last = lst[arr.length - 1]

console.log(first) ➞ outputs 1
console.log(last) ➞ outputs 8

Using Destructuring Assignment (check the Resources tab), your task is to unpack the arrays writeyourco
Write a function that takes two numbers and returns if they should be added, subtracted, multiplied or d

Examples
operation(15, 9) → "added"

operation(26, 2) → "subtracted"

operation(11, 11) → null

Notes
Only integers are used as test input.
Numbers sho …
Create a function which makes the last character of a string repeat n number of times.

Examples
modifyLast("Hello", 3) → "Hellooo"

modifyLast("hey", 6) → "heyyyyyy"

modifyLast("excuse me what?", 5) → "excuse me what?????"

Notes
Tests will include numbers and punctuation.
Make sure your code is not case sensitive.
Create a function that takes an array and returns the sum of all numbers in the array.

Examples
getSumOfItems([2, 7, 4]) → 13

getSumOfItems([45, 3, 0]) → 48

getSumOfItems([-2, 84, 23]) → 105

Notes
N/A
Create a function that will put the first argument, a character, between every word in the second argume

Examples
add("R", "javascript is fun") → "javascriptRisRfun"

add("#", "hello world!") → "hello#world!"

add("#", " ") → "#"

Notes
Make sure there are no spaces between words when returning the function.
Create a function that takes damage and speed (attacks per second) and returns the amount of damage a

Examples
damage(40, 5, "second") ➙ 200

damage(100, 1, "minute") ➙ 6000

damage(2, 100, "hour") ➙ 720000

Notes
Return "invalid" if damage or speed is negative.
Given an array, rotate the values clockwise by one (the last value is sent to the first position).

Check the examples for a better understanding.

Examples
rotateByOne([1, 2, 3, 4, 5]) ➙ [5, 1, 2, 3, 4]

rotateByOne([6, 5, 8, 9, 7]) ➙ [7, 6, 5, 8, 9]

rotateByOne([20, 15, 26, 8, 4]) ➙ [4, 20, 15, 26, 8]

Notes
N/A
Backpack Bill and Wallet Will set off for the annual festival. As they approach the stalls, Bill retorts that h

Backpack Bill has an infinite inventory space, but a limited number of coins.
Wallet Wi …
Create a function that counts how many D's are in a sentence.

Examples
countDs("My friend Dylan got distracted in school.") ➙ 4

countDs("Debris was scattered all over the yard.") ➙ 3

countDs("The rodents hibernated in their den.") ➙ 3

Notes
Your function must be case-insensitive.
Remember to return the result.
Check the …
Create a function that takes three numbers as arguments and returns true if it's a triangle and false if not

Examples
isTriangle(2, 3, 4) ➙ true

isTriangle(3, 4, 5) ➙ true

isTriangle(4, 3, 8) ➙ false

Notes
a, b and, c are the side lengths of the triangles.
Test input will always be three positive numbers.
You hired three programmers and you (hopefully) pay them. Create a function that takes three numbers

Examples
programmers(147, 33, 526) → 493

programmers(33, 72, 74) → 41

programmers(1, 5, 9) → 8

Note …
Given a pH value, return whether that value is "alkaline" (greater than 7), "acidic" (less than 7), or "neutr

Image of a pH chart

Examples
pHName(5) → "acidic"

pHName(8.7) → "alkaline"

pHName(7) → "neutral"

Notes
Values such as 6.9999 and 8.0 …
Create a class that takes the following four arguments for a particular football player:
name
age
height
weight

Also, create three functions for the class that returns the following strings:
getAge() returns "name is age age"
getHeight() returns "name is heightcm"
getWeight() returns "name weighs weightkg"

Examples
 p1 = n …
Create a function that takes an array of numbers arr and returns an inverted array.

Examples
invertArray([1, 2, 3, 4, 5])) → [-1, -2, -3, -4, -5]

invertArray([1, -2, 3, -4, 5] → [-1, 2, -3, 4, -5]

invertArray([]) ➞ []

Don't forget to return the result.
If you get stuck on a challenge, find help in the Resources tab …
You can think of character classes as characters with special meaning. They are recognized as special whe

Here are a list of the characters classes in JavaScript:

., \cX, \d, \D, \f, \n, \r, \s, \S, \t, \v, \w, \W, \0, \xhh, \uhhhh, \uhhhhh, [\b]

There is a hidden message in this str …
After an amazing performance, the crowd goes wild! People clap enthusiastically and most claps overlap

An overlapped clap is a clap which starts but doesn't finish, as in "ClaClap" (The first clap is cut short and

Given a string of what the overlap …
You will be given a list, showing how far James travels away from his home for each day. He may choose

Create a function that calculates what distance James must walk to get back home.

Examples
distanceHome([2, 4, 2, 5]) ➞ 13

distanceHome([-1 …
Write a function that returns the sum of elements in an array greater than 5.

Examples
sumFive([1, 5, 20, 30, 4, 9, 18]) ➞ 77

sumFive([1, 2, 3, 4]) ➞ 0

sumFive([10, 12, 28, 47, 55, 100]) ➞ 252

Notes
Find all the elements greater than 5, not the elements greater than or equal to 5.
Many IDS (for emails or Google ID) are created using the person's name.

Create a function that will return a four-character ID using the person's first name and last name. The firs
The next three characters will be the first three characters of the last …
Given an array of integers, determine whether the sum of its elements is even or odd.

The return value should be a string ("odd" or "even").

If the input array is empty, consider it as an array with a zero ([0]).

Examples

evenOrOdd([0]) ➞ "even"

evenOrOdd([1]) ➞ "odd"

evenOrOdd([]) ➞ "even"

evenOrOdd([0, 1, 5]) ➞ "even ...
Create a function which returns "upper" if all the letters in a word are uppercase, "lower" if lowercase an

Examples
getCase("whisper...") ➞ "lower"

getCase("SHOUT!") ➞ "upper"

getCase("Indoor Voice") ➞ "mixed"

Notes
Ignore punctuation, spaces and numbers.
Create a function that returns the selected filename from a path. Include the extension in your answer.

Examples
getFilename("C:/Projects/pil_tests/ascii/edabit.txt") ➞ "edabit.txt"

getFilename("C:/Users/johnsmith/Music/Beethoven5.mp3") ➞ "Beethoven5.mp3"

getFilename("ffprobe.exe") ➞ "ffprobe.exe"

Notes
Tests will includ ...
A strong Scottish accent makes every vowel similar to an "e", so you should replace every vowel with an

Create a function that takes a string and returns a string.

Examples
toScottishScreaming("hello world") ➞ "HELLE WERLD"

toScottishScreaming("Mr ...
A number is called Automorphic number if its square ends in the original number. Create a function that

Examples
automorphic(1) ➞ true

automorphic(3) ➞ false
// 3^2 = 9

automorphic(6) ➞ true
// 6^2 = 36 (ends with 6)

automorphic(95) ➞ fals …

Write a function that takes the last number of a consecutive list of numbers and returns the total of all nu

Examples

addUpTo(3) ➞ 6

// 1 + 2 + 3 = 6

addUpTo(10) ➞ 55

// 1 + 2 + 3 + … + 10 = 55

addUpTo(7) ➞ 28

// 1 + 2 + 3 + … + 7 = 28

Notes

You will only be given valid inputs.

There are …

Given a number and an object with min and max properties, return true if the number lies within the give

Examples

isInRange(4, { min: 0, max: 5 }) ➞ true

isInRange(4, { min: 4, max: 5 }) ➞ true

isInRange(4, { min: 6, max: 10 }) ➞ false

isInRange(5, { min: 5, max: 5 }) ➞ true

Notes

Numbers can be posi …

Create a function that takes the length of the side of an equilateral triangle in centimeters and returns th

Examples

height(2) ➞ 17.3 mm

height(5) ➞ 43.3 mm

height(6.2) ➞ 53.7 mm

Notes

Return the answer rounded to one decimal place and in the format shown in the examples above.

Create a function that returns an array of all the integers between two given numbers start and end.

Examples

rangeOfNum(2, 4) ➞ [3]

rangeOfNum(5, 9) ➞ [6, 7, 8]

rangeOfNum(2, 11) ➞ [3, 4, 5, 6, 7, 8, 9, 10]

Notes
start will always be <= end.
If start == end, return an empty array.
Create a function that takes date in the format yyyy/mm/dd as an input and returns "Bonfire toffee" if t

Examples
halloween(new Date("2013/10/31")) ➞ "Bonfire toffee"

halloween(new Date("2012/07/31")) ➞ "toffee"

halloween(new Date("2011/10/12")) ➞ "toffee"

Notes
N/A
Write a function that takes an array of drinks and returns an array of only drinks with no sugar in them. C

Cola
Fanta

Examples
skipTooMuchSugarDrinks(["fanta", "cola", "water"]) ➞ ["water"]

skipTooMuchSugarDrinks(["fanta", "cola"]) ➞ []

skipTooMuchSugarDrinks(["lemonade", …
Create a function that determines if the temp of the water is considered boiling or not. temp will be mea

Examples
isBoiling("212F") ➞ true

isBoiling("100C") ➞ true

isBoiling("0F") ➞ false

Notes
The boiling point of water is 212F in fahrenheit and 100C in celsius.
Given an array of numbers, create a function which returns the same array but with each element's inde

Examples
addIndexes([0, 0, 0, 0, 0]) ➞ [0, 1, 2, 3, 4]

addIndexes([1, 2, 3, 4, 5]) ➞ [1, 3, 5, 7, 9]

ad …

Your spouse wants a copy of the stolen items. Given an object containing the stolen items, return a copy

Examples
{ piano: 100, tv: 50 } ➞ { piano: 100, tv: 50 }

Notes
I'm having trouble coming up with clear examples for this challenge. If you have suggestions please leave
You are given two numbers a and b. Create a function that returns the next number greater than a and b

Examples
divisibleByB(17, 8) ➞ 24

divisibleByB(98, 3) ➞ 99

divisibleByB(14, 11) ➞ 22

Notes
a will always be greater than b.
Create a function which returns the total of all odd numbers up to and including n. n will be given as an o

Examples
addOddToN(5) ➞ 9
// 1 + 3 + 5 = 9

addOddToN(13) ➞ 49

addOddToN(47) ➞ 576

Notes
Curiously, the answers are all square numbers!
Create a function that flips M's to W's (all uppercase).

Examples
wumbo("I LOVE MAKING CHALLENGES") ➞ "I LOVE WAKING CHALLENGES"

wumbo("MEET ME IN WARSAW") ➞ "WEET WE IN WARSAW"

wumbo("WUMBOLOGY") ➞ "WUWBOLOGY"

Notes
N/A
Given a set containing an element, return the sole element.

Examples
const first = new Set();
first.add(1);
elementSet(first) ➞ 1

```
const second = new Set();
second.add("apple");
elementSet(second) ➞ "apple"

const third  = new Set();
third.add(false);
elementSet(third) ➞ false
```

Notes
Set elements may be a string, boolean o ...
Create a function that takes three number arguments — one number as an input and two additional num

If the number falls within the range, the number should be returned.
If the number is less than the lower limit of the range, the ...
Create functions for the Calculator class that can do the following:

Add two numbers.
Subtract two numbers.
Multiply two numbers.
Divide two numbers.

Examples
```
var calculator = new Calculator()

calculator.add(10, 5) ➞ 15

calculator.subtract(10, 5) ➞ 5

calculator.multiply(10, 5) ➞ 50

calculator.divide(10, 5) ➞ 2
```

Notes
T ...
Imagine you run a website that presents users with different coding challenges in levels Easy, Medium, a

Create a function that takes the amount of ch ...
Mubashir wants to remove numbers from a given string!

Help him by fixing the code in the code tab to pass this challenge. Look at the examples below to get an i

Examples
```
removeNumbers("mubashir1") ➞ "mubashir"

removeNumbers("12ma23tt") ➞ "matt"
```

removeNumbers("e1d2a3b4i5t6") → "edabit"

 ...

In this challenge, you have to implement a function that returns the given distance kilometers converted

Examples
kmtomiles(2) → 1.24274

kmtomiles(6) → 3.72823

kmtomiles(8) → 4.97097

Notes
1 kilometer = 0.621371 miles.
Create a function that takes a number n and returns the sum of all square numbers up to and including n

squaresSum(3) → 14
// 1² + 2² + 3² =
// 1 + 4 + 9 =
// 14

Examples
squaresSum(3) → 14

squaresSum(12) → 650

squaresSum(13) → 819

Notes
Remember that n is included in the total.
Create a function based on the input and output. Look at the examples, there is a pattern.

Examples
secret("div*2") → ""

secret("p*1") → ""

secret("li*3") → ""

Notes
Input is a string.
Create a function that takes an array of strings and numbers, and filters out the array so that it returns ar

Examples
filterArray([1, 2, 3, "a", "b", 4]) → [1, 2, 3, 4]

filterArray(["A", 0, "Edabit", 1729, "Python", "1729"]) → [0, 1729]

filterArray(["Nothing", "here"]) → []

Create a function that takes a number as an argument and returns the amount of digits it has.

Examples
findDigitAmount(123) → 3

findDigitAmount(56) → 2

findDigitAmount(7154) → 4

findDigitAmount(61217311514) → 11

findDigitAmount(0) → 1

Notes
If you get stuck on a challenge, find help in the Resources tab.
If you're real …
Mubashir needs your help in a simple task.

Create a function that takes a number n and return its decimal part.

Examples
decimalPart(1.2) → 0.2

decimalPart(-3.73) → 0.73

decimalPart(10) → 0

Notes
Don't forget to return the result.
If you get stuck on a challenge, find help in the Resources tab.
If you're really stuck, u …
Given the side length x find the area of a hexagon.

Formula to find the area of a hexagon

Examples
areaOfHexagon(1) → 2.6

areaOfHexagon(2) → 10.4

areaOfHexagon(3) → 23.4

Notes

Return null if the side length given is not a positive integer.

Round to the nearest tenth.

Create a function that returns true if the combined weight of a car car and the weight of the passengers p

Given a number n, find if its 2nd, 4th and 8th roots are all integers (perfect roots), return true if it exists,

Examples

perfectRoots(256) ➞ true
// 2nd root of 256 is 16
// 4th root of 256 is 4
// 8th root of 256 is 2

perfectRoots(1000) ➞ false

perfectRoots(6561) ➞ true

Notes

n > 1

Create a function that will work as the modulus operator % without using the modulus operator. The mo

Examples

mod(5, 2) ➞ 1

mod(218, 5) ➞ 3

m …

In mathematics and digital electronics, a binary number is a number expressed in the base-2 numeral sys

Examples

binaryToDecimal([0, 0, 0, 1]) ➞ 1

binaryToDecimal([0, 0, 1, 0]) ➞ 2

binaryToDecimal([1, 1, …

Create a function that takes a positive integer n, and returns the sum of all the cubed values from 1 to n.

For example, if n is 3:

sumCubes(3) ➞ 36
1 * 3 + 2 * 3 + 3 ** 3 = 36

Examples

sumCubes(7) ➞ 784

sumCubes(8) ➞ 1296

sumCubes(9) ➞ 2025

Notes
Input n will be a positive integer.
Mubashir needs your help to find next integral perfect square after the one passed as a parameter.

Create a function which takes a given number n and returns next integral perfect square number. Return

Examples
nextSquare(121) ➞ 144

nextSquare(625) ➞ 676

nextSquare(114) ➞ …
Create a function that returns an array of booleans from a given number by iterating through the numbe

Examples
integerBoolean("100101") ➞ [true, false, false, true, false, true]

integerBoolean("10") ➞ [true, false]

integerBoolea …
Create a function that takes a year as an argument and returns the corresponding Chinese zodiac.

Examples
chineseZodiac(2021) ➞ "Ox"

chineseZodiac(2020) ➞ "Rat"

chineseZodiac(1933) ➞ "Rooster"

Notes
N/A
According to the lodash documentation, _.fill Fills elements of an array with the value from start to, but r

This challenge requires you to write your own version of this function without using lodash so that you ca

Arguments
array (Arr …
The insurance guy calls again. Apparently, they were informed by your spouse that some items were not

Given an object, return a string that concatenates all the values …
Mubashir has a cat and a dog. He purchased both of them at the same time humanYears ago.

Create a function which takes an argument of humanYears and returns [humanYears, catYears, dogYears

Human Years
Human Years >= 1

Human Years are whole numbers only.

Cat Years
15 cat years for first year.
+9 cat years for secon ...
Create a function which takes a number and returns the maximum value by rearranging its digits.

Examples
rotateMaxNumber(123) ➞ 321

rotateMaxNumber("001") ➞ 100

rotateMaxNumber(999) ➞ 999

Notes
The input number can be a digit or a string.
You are given an array of dates in the format Dec 11 and a month in the format Dec as arguments. Each c

Examples
uploadCount(["Sept 22", "Sept 21", "Oct 15"], "Sept") ➞ 2

uploadCount(["Sept 22", "Sept 21", "Oct 15"], "Oct") ...
Given any number of parameters, return true if none of the arguments are falsy.

Examples
nothingIsNothing(0, false, undefined, null) ➞ false

nothingIsNothing(33, "Hello", true, []) ➞ true

nothingIsNothing(true, false) ➞ false

Notes
You'll have to figure out a way to access the arguments
For this challenge, you are supposed to find the sum of the digits of a two-digit number. Sounds easy, rigl

Sure, you can convert the number into a string and then manipulate it so it returns the sum of the digits,
Mubashir created a function that takes two numbers a and b and an operator o. His function should retu
Write a function that accepts the width and height (m, n) and an optional proc s and generates an array v

The default character (hash #) repeating n times (if no proc is given).
The character passed in through the proc repeating n times.

Examples
makeRug(3, 5) ➞ ...
Create a function that takes a number n and returns the first 10 multiples of n with 1 added to it, separat

Examples

nTablesPlusOne(7) → "8,15,22,29,36,43,50,57,64,71"

nTablesPlusOne(1) → "2,3,4,5,6,7,8,9,10,11"

nTablesPlusOne(3) → "4,7,10,13,16,19,22,25,28,31"

Notes
There is no comma after the last number.
Given the shortest side of a 30° by 60° by 90° triangle, find out the other two sides. Return the longest si

Examples
otherSides(1) → [2, 1.73]

otherSides(2) → [4, 3.46]

otherSides(3) → [6, 5.2]

Notes
30 60 90 triangles always follow this rule: let's say the shortest side length is …
Given a letter and an array of words, return whether the letter does not appear in any of the words.

Examples
forbiddenLetter("r", ["rock", "paper", "scissors"]) → false

forbiddenLetter("a", ["spoon", "fork", "knife"]) → true

forbiddenLetter("m", []) → true

Notes
All inputs given will be in lowercase.
You will always be …
The challenge is simple. Return a random integer N such that a <= N <= b.

Examples
randomInt(5, 9) → 7

randomInt(5, 9) → 9

randomInt(5, 9) → 5

Notes
Don't forget to return the result.
Return value must be an integer.
Create a function that takes two arguments: a father's current age fAge and his son's current age sAge. C

Examples
ageDifference(36, 7) → 22

// 22 years from now, the father will be 58 years old and his son will …
A Narcissistic Number is a number that is the sum of its own digits each raised to the power of the numbe

For example, take 153 (3 digits), which is narcisstic:
1^3 + 5^3 + 3^3 = 1 + 125 + 27 = 153

1652 (4 digits), is non-narcisstic:
1^4 + 6^4 + 5^4 + 2^4 = 1 + 1296 + 625 + 16 = 1938

Create a function that re …
Create a function that takes two arguments of an array of numbers arr and a constant number n and retu

Examples
largestNumbers(2, [4, 3, 2, 1]) → [3, 4]

largestNumbers(1, [7, 19, 4, 2]) → [19]

largestNumbers(3, [14, 12, 57, 11, 18, 16]) → [16, 18, 57]

largestNumbers(0, [1, 3 …
Check the principles of minimalist code in the [intro to the first challenge] (https://edabit.com/challenge,

In the Code tab you will find a code that has a missplaced character in order to pass the tests. However, y

Write a function that returns …
You are in charge of the cake for a child's birthday. You have decided the cake will have one candle for ea

Examples
birthdayCakeCandles([4, 4, 1, 3]) → 2
// The maximum height candles are four units …
Create a function that takes a 2D array arr and returns the sum of the minimum value in each row.

Examples
sumMinimums([
  [1, 2, 3, 4, 5],
  [5, 6, 7, 8, 9],
  [20, 21, 34, 56, 100]
]) → 26

// minimum value of the first row is 1
// minimum value of the second row is 5
// minimum value of the third row is 20

Notes
N/A
Create a function that takes an array. This array will contain numbers represented as strings.

Your function should split this array into two new arrays. The first array should contain only even number

Return an empty array if there are no …
Given a one word lowercase string txt, return another string such that even-indexed and odd-indexed cha

Examples
evenOddString("mubashir") ➞ "mbsi uahr"
// Letters at even indexes = "mbsi"
// Letters at odd indexes = "uahr"
// Join both strings with a space

evenOddString(" …
Create a function that finds each factor of a given number n. Your solution should return an array of the

Examples
findFactors(9) ➞ [1, 3, 9]
// 9 has three factors 1, 3 and 9

findFactors(12) ➞ [1, 2, 3, 4, 6, 12]

findFactors(20) ➞ [1, 2, 4, 5, 10, 20]

findFactors(0) ➞ []
// 0 has no fa …
Create a function that takes two numbers and a mathematical operator and returns the result.

Examples
calculate(4, 9, "+") ➞ 13

calculate(12, 5, "-") ➞ 7

calculate(6, 3, "*") ➞ 18

calculate(25, 5, "/") ➞ 5

calculate(14, 3, "%") ➞ 2

Notes
Numbers can be negative.
The only operations used are those in the examples above.
Create a function that can turn Yen (Japanese dollar) to USD (American dollar).

Examples
yenToUsd(1) ➞ 0.01

yenToUsd(500) ➞ 4.65

yenToUsd(649) ➞ 6.04

Notes
Each Yen to USD conversion is Yen / 107.5
Round the result to two decimal places.
Given an array of numbers, remove the largest and smallest numbers, and calculate the average of the re

Examples
trimmedAverages([4, 5, 7, 100]) ➞ 6
// Average of 5 and 7

trimmedAverages([10, 25, 5, 15, 20]) ➞ 15
// Average of 10, 15 and 20

trimmedAverages([1, 1, 1]) ➞ 1
// 1

Notes
Round to the nearest wh …
Character recognition software often makes mistakes when documents (especially old ones written with

Your task is to correct the errors in the digitized text. You only have to handle the following mistakes:

A is misinterpreted as 4
S is misinterpreted as 5
O is misinterpreted as 0
I is misinter …
In mathematics, an Arithmetic Progression (AP) is a sequence of numbers such that the difference betwe
First element of the sequence first
Constant difference between the elements diff
Total numbers in the sequence n

Return the first n elemen …
Create a function that determines the age difference between spouses in a household. The ages ages in y

If there is no difference in age between the parents, return "No age difference between spouses.". Other
Given a 2D-list of letters arr and a list of indexes idx, find the letters on given indexes and return as a strir

arr = [
 ["m", "u", "b"],
 ["a", "s", "h"],
 ["i", "r", "1"]
]

idx = [1, 3, 5, 8]

You have to find the characters in these indexes of the given list if you think of the indexes as:

[
  [1, 2, 3],
  [4, 5 …

Given an array of numbers, return true if the sum of the array is less than 100; otherwise return false.

Examples
arrayLessThan100([5, 57]) → true

arrayLessThan100([77, 30]) → false

arrayLessThan100([0]) → true

Notes
N/A
Create a function that returns the last value of the last item in an array or string.

Examples
lastItem([0, 4, 19, 34, 50, -9, 2]) → 2

lastItem("The quick brown fox jumped over the lazy dog") → "g"

lastItem([]) → undefined

Notes
Arrays/strings will be of varying size.
Return undefined if array/string is empty.
Write your own version of the lodash _.isEqual function using vanilla JavaScript (so, no external libraries ·
isEqual performs a deep comparison between two values to determine if they are equal. You can use it to

Thi …
Ok, the challenge is kind of easy, right?

The problem is not adding. The problem is that the numbers are not in order. Create a function that orga

Here is an example:

X = -10 | Y=1

So this will be the range of numbers:

-10, -9, -8, -7, -6, -5, -4, -3, - …
Darts is a target game played by throwing feathered darts at a circular board with numbered spaces. Our
Given an array of either entirely odd integers or entirely even integers except for a single Outlier Number

Examples
outlierNumber([2, 3, 4]) → 3

// 2 and 4 are even numbers.
// 3 is an outlier number.

outlierNumber([1, 2, 3]) → 2

outlierNumber([4, 1, 3, 5, 9]) → 4

Notes
Array si ...
Create a function that takes two lowercase strings str1 and str2 of letters from a to z and returns the sor1

Examples
str1 = "mubashir"
str2 = "edabit"

longestString(str1, str2) → "abdehimrstu"
// Contains sorted and distinct letters of the given strings.

str1 = "abcdefghi ...
Given an array with an even amount of numbers, return true if the sum of two numbers in the array is e\

To illustrate:

11, 15, 6, 8, 9, 10

11 + 15 = 26 = true
15 + 6 = 21 = false
6 + 8 = 14 = true
8+ 9 = 17 = false
9 + 10 = 19 = false

Therefore, solution = [true ...
Given an array, return true if there are more odd numbers than even numbers, otherwise return false.

Examples
oddeven([1, 2, 3, 4, 5, 6, 7, 8, 9]) → true

oddeven([1]) → true

oddeven([13452394823795273847528572346]) → false

Notes
All arrays will have at least 1 item.
Write a function that takes a year and returns its corresponding century.

Examples
centuryFromYear(2005) → 21

centuryFromYear(1950) → 20

centuryFromYear(1900) → 19

Notes
For guidance on the year boundaries for each century:
The 19th century are the years from 1801 to 1900.
The 20th century are the years from 1901 to 2000.
In the Code tab is a function which is meant to return how many uppercase letters there are in a list of va

Examples
countUppercase(["SOLO", "hello", "Tea", "wHat"]) → 6

countUppercase(["little", "lower", "down"]) → 0

counUppercase(["EDAbit", "Edu …
Create a function which takes an array arr and moves all zeros to the end, preserving the order of the oth

Examples
moveZeros([1, 0, 1, 2, 0, 1, 3]) → [1, 1, 2, 1, 3, 0, 0]

moveZeros([0, 1, null, 2, false, 1, 0]) → [1, null, 2, false, 1, 0, 0]

moveZeros(['a', 0, 0, 'b', 'c', 'd', 0, 1, 0, 1, 0, 3, 0, 1, 9, 0, …
Create a function that takes an array of numbers nums as an argument. Square each number in the array
Return the sum of the new array rounded to two decimal places.

Example:
[2, 4, 9] → 23
$2 \wedge 2 + 4 \wedge 2 + \sqrt{9} = 4 + 16 + 3 = 23$

Examples
arraySum([1, 3, 3, 1, 1 …
Create a function that returns the average of a list composed of letters. First, find the number of the lette

A = 1
B = 2
C = 3
D = 4
E = 5

average = total sum of all numbers / number of item in the set

Return the result rounded to two decimal points.

Examples

av ...
Create a function that takes a string str and returns an array of two-paired characters. If the string has an

See the below examples for a better understanding:

Examples
stringPairs("mubashir") → ["mu", "ba", "sh", "ir"]

stringPairs("edabit") → ["ed", "ab", "i ...
Create a function to calculate how many characters in total are needed to make up the shape. You will be

Examples
countCharacters([
  "###",
  "###",
  "###"
]) → 9

countCharacters([
  "22222222",
  "22222222",
]) → 16

 ...
Using the .test() method in your function, return whether a string contains the characters "a" and "c" (in

Examples
asterisk("account") → true

asterisk("abccount") → true

asterisk("abbbccount") → true

asterisk("bbbccount") → false

Notes
N/A
Wild Roger is participating in a Western Showdown, meaning he has to draw (pull out and shoot) his gun

Given two strings,p1 and p2, return which person drew their gun the fastest. If both are drawn at the san

Examples
showdown(
  " Bang!   ",
  "   ...
Edabit allows for markdown formatting, meaning that it's possible to format words by surrounding text w

Here is a list of the possible formatting options in Edabit and how to apply them:
bold
 italics
`inline …
Create a function that takes a sentence and turns every "i" into "wi" and "e" into "we", and add "owo" at

Examples
owofied("I'm gonna ride 'til I can't no more")
➞ "I'm gonna rwidwe 'twil I can't no morwe owo"

owofied("Do you ever feel like a plastic bag")
➞ "Do you wevwer fwewel lwikwe a plastwic bag owo"

owofie …
Wild Roger is tasked with shooting down 6 bottles with 6 shots as fast as possible.
Here are the different types of shots he could make:
He could use one pistol to shoot a bottle with a "Bang!" in 0.5 seconds.
Or he could use both pistols at once with a "BangBang!" to shoot two bottles in 0.5 seconds.

Given an array of stri …
Create a function that returns the original value from a matrix with too many sub-arrays.

Examples
deNest([[[[[[[[[[[[3]]]]]]]]]]]]) ➞ 3

deNest([[[[[[[true]]]]]]]) ➞ true

deNest([[[[[[[[[[[[[[["edabit"]]]]]]]]]]]]]]]) ➞ "edabit"

Notes
You only need to retrieve one element.
Create a function that calculates the profit margin given costPrice and salesPrice. Return the result as a p

Examples
profitMargin(50, 50) ➞ "0.0%"

profitMargin(28, 39) ➞ …
There has been a masterdata issue which affected the unit of measure of the products. All values need to

The return value should be a Boolean.

Expected results
hasValidUnitOfMeasure({ …
Create a function that takes two parameters and, if both parameters are strings, add them as if they were

Examples
stupidAddition(1, 2) ➞ "12"

stupidAddition("1", "2") ➞ 3

stupidAddition("1", 2) ➞ null

Notes
If the two parameters are different data types, …
Mubashir needs your help to count uppercase letters, lowercase letters, numbers and special characters

Create a function which takes a string txt and returns a list of numbers with count of uppercase letters, lo

Examples
filterString("$(#Mu12bas43hiR%@!") ➞ …
Create a function that takes a string and returns the word count. The string will be a sentence.

Examples
countWords("Just an example here move along") ➞ 6

countWords("This is a test") ➞ 4

countWords("What an easy task, right") ➞ 5

Notes
If you get stuck on a challenge, find help in the Resources tab.
If you're really st …
Create a function that takes a number (from 1 to 12) and returns its corresponding month name as a strir

Number	Month Name
1	January
2	February
3	March
4	April
5	May
6	June
7	July
8	Aug …
Write a function that takes an array of strings and a pattern (string) and returns the strings that contain t

Examples
cmsSelector(["WordPress", "Joomla", "Drupal"], "w") ➞ ["WordPress"]

cmsSelector(["WordP …
Create a function that takes an angle in radians and converts it into degrees.

Examples
toDegree(Math.PI) ➞ 180

toDegree(Math.PI/2) ➞ 90

toDegree(Math.PI/4) ➞ 45

Notes
The input angles are in radians.
Check out the Resources tab.
There are 360 degrees and 2 pi radians in a circle. So to convert degrees to radians, divide …
Create a function that takes in year and months as input, then return what year it would be after n-mont

Examples
afterNMonths(2020, 24) ➞ 2022

afterNMonths(1832, 2) ➞ 1832

afterNMonths(1444, 60) ➞ 1449

Notes
Assume that adding 12 months will always increment the year by 1.
If no value is given for year o …
Given an array of integers arr, return the sum of all the integers that have an even index, multiplied by th

If the sequence is empty, you should return 0.

Examples
evenLast([2, 3, 4, 5]) ➞ 30
// numbers at even index = 2, 4
// number at last index = 5
// 25 + 45 = 10 + 20 = 30

evenLast([1, 3, …
I'm trying to watch some lectures to study for my next exam but I keep getting distracted by meme comp

Your job is to help me create a function that takes a string and checks to see if it contains the following w

anime
meme

vine …
Given a
string of
letters, how
many
capital
letters are
there?

Examples
capitalLette
rs(fvLzpxmg
XSDrobbgM
Vrc") → 6

capitalLetters("JMZWCneOTFLWYwBWxyFw") → 14

capitalLetters("mqeytbbjwqemcdrdsyvq") → 0

Notes
N/A
You are given one input: an array containing eight 1's and/or 0's. Write a function that takes an 8 bit bina

Examples
binaryToDecimal([1, 1, 1, 1, 1, 1, 1, 1]) → 255

binaryToDecimal([0, 0, 0, 0, 0, 0, 0, 0]) → 0

binaryToDecimal([1, 0, 1, 1, 1, 1, 0, 0]) → 188

Notes
Return an integer.
const obj = { one : 1, two : 2 }

var { one, two } = obj

We can assign variables by the same name properties of objects, but what if I wanted to assign obj.one t

Use ES6 object destructuring to assign obj.one to the variable anotherOne. Variable two needs to remain
Create a function that counts the number of syllables a word has. Each syllable is separated with a dash -

Examples
numberSyllables("buf-fet") → 2

numberSyllables("beau-ti-ful") → 3

numberSyllables("mon-u-men-tal") → 4

numberSyllables("on-o-mat-o-poe-ia") → 6

Notes
Don't forget to return the result.
If you get stuck on …
Something which is not true is false, but something which is not not true is true! Create a function where

Examples
notNotNot(1, true) → false
// Not true

notNotNot(2, false) → false
// Not not false

notNotNot(6, true) → true
// Not not not not not not true

No …
Create a function that takes two parameters (start, stop), and returns the sum of all even numbers in the

Examples
sumEvenNumsInRange(10, 20) → 90
// 10, 12, 14, 16, 18, 20

sumEvenNumsInRange(51, 150) → 5050

sumEvenNumsInRange(63, 97) → 1360

Notes
Remember that the start and stop values are inclusive.
Imagine a circle and two squares: a smaller and a bigger one. For the smaller one, the circle is a circumcir

Scale

Create a function, that takes an integer (radius of the circle) and returns the difference of the areas of the

Examples
squareAreasDifference(5) → 50

squa …
Create a function that takes a number as an argument and returns the square root of that number cubed

Examples
cubeSquareRoot(81) → 729

cubeSquareRoot(1646089) ➞ 2111932187

cubeSquareRoot(695556) ➞ 580093704

Notes
All numbers will evenly square root, so don't worry about decimal numbers.
Given a sorted array of numbers, remove any numbers that are divisible by 13. Return the amended arra

Examples
unlucky13([53, 182, 435, 591, 637]) ➞ [53, 435, 591]
// 182 and 637 are divisible by 13.

unlucky13([24, 316, 393, 458, 1279]) ➞ [24, 316, 393, 458, 1279]
// No numbers in the array are divisible by 13.

unlucky1 …
Hamming distance is the number of characters that differ between two strings.

To illustrate:
String1: "abcbba"
String2: "abcbda"

Hamming Distance: 1 - "b" vs. "d" is the only difference.

Create a function that computes the hamming distance between two strings.

Examples
hammingDistance("abcde", "bcdef") ➞ 5

hammingDistan …
I am trying to filter out empty arrays from an array. In other words, I want to transform something that lo

```
function removeEmptyArrays(arr) {
  return arr.filter(x => x !== [])
}
```

However, somehow, the empty arrays still …
You can think of character classes as characters with special meaning. They are recognized as special whe

Here are a list of the characters classes in JavaScript:

., \cX, \d, \D, \f, \n, \r, \s, \S, \t, \v, \w, \W, \0, \xhh, \uhhhh, \uhhhhh, [\b]

There is a hidden word in this string …
Write a function that returns true if the product of an array is divisible by the sum of that same array. Otl

Examples

divisible([3, 2, 4, 2]) → false

divisible([4, 2, 6]) → true
// 4 * 2 * 6 / (4 + 2 + 6)

divisible([3, 5, 1]) → false

Notes
N/A
Write a function that searches an array of names (unsorted) for the name "Bob" and returns the location

Examples
findBob(["Jimmy", "Layla", "Bob"]) → 2

findBob(["Bob", "Layla", "Kaitlyn", "Patricia"]) → 0

findBob(["Jimmy", "Layla", "James"]) → -1

Notes
Assume all names …
Create a function that removes the first and last characters from a string.

Examples
removeFirstLast("hello") → "ell"

removeFirstLast("maybe") → "ayb"

removeFirstLast("benefit") → "enefi"

removeFirstLast("a") → "a"

Notes
If the string is 2 or fewer characters long, return the string itself (See Example #4).
Create a function to extract the name of the subreddit from its URL.

Examples
subReddit("https://www.reddit.com/r/funny/") → "funny"

subReddit("https://www.reddit.com/r/relationships/") → "relationships"

subReddit("https://www.reddit.com/r/mildlyinteresting/") → "mildlyinteresting"

Notes
N/A
Write a function that returns true if a hash contains the specified key, and false otherwise.

Examples

hasKey({ a: 44, b: 45, c: 46 }, "d") → false

hasKey({ craves: true, midnight: true, snack: true }, "morning") → false

hasKey({ pot: 1, tot: 2, not: 3 }, "not") → true

Notes
N/A
Create a function which validates whether a bridge is safe to walk on (i.e. has no gaps in it to fall through

Examples
isSafeBridge("####") → true

isSafeBridge("## ####") → false

isSafeBridge("#") → true

Notes
You can expect the bridge's ends connecting it to its surrounding.
Write a function that takes three string arguments (first, last, and word) and returns true if word is found

Examples
isBetween("apple", "banana", "azure") → true

isBetween("monk", "monument", "monkey") → true

isBetween("bookend", "boolean", "boost") → false

Note …
Write a regular expression that matches a string if it contains at least one digit.

Examples
c8 → true

23cc4 → true

abwekz → false

sdfkxi → false

Notes
This challenge is designed to use RegEx only.
In JavaScript, you can do basic object assignment like this:

const obj = { one : 1, two : 2 }

let one = obj.one

let two = obj.two

However, with ES6 you can assign the variables in a much more succinct way. Use ES6 object destructurin

Although you can …
Create a function that takes an array of numbers. Return the largest number in the array.

Examples
findLargestNum([4, 5, 1, 3]) → 5

findLargestNum([300, 200, 600, 150]) → 600

findLargestNum([1000, 1001, 857, 1]) → 1001

Notes
Expect either a positive number or zero (there are no negative numbers).
If you get stuck on a ch …
Given a class for a BasicPlan, write the classes for StandardPlan and PremiumPlan which have class prope

BasicPlan | StandardPlan | PremiumPlan |
--- | --- | --- | ---
|✓|✓ |✓|canStream
|✓|✓|✓|canDownload
|✓|✓|✓|hasSD
| |✓|✓|hasHD
| | |✓|hasUHD
|1|2|4|numOfDevices
|$8.99|$12.99 |$15.99|price

Examples …
You're in the midst of creating a typing game.

Create a function that takes in two arrays: the array of user-typed words, and the array of correctly-type
Inputs:
User-typed Array: ["cat", "blue", "skt", "umbrells", "paddy"]
 …
You work for a manufacturer, and have been asked to calculate the total profit made on the sales of a pr

Examples
profit({
 …
Create a function replaces all the vowels in a string with a specified character.

Examples
replaceVowels("the aardvark", "#") → "th# ##rdv#rk"

replaceVowels("minnie mouse", "?") → "m?nn?? m??s?"

replaceVowels("shakespeare", "") → "shkspr"

Notes
All characters will be in lower case.
Create a function that returns the next element in an arithmetic sequence. In an arithmetic sequence, ea

Examples
nextElement([3, 5, 7, 9]) → 11

nextElement([-5, -6, -7]) → -8

nextElement([2, 2, 2, 2, 2]) → 2

Notes
All input arrays will contain inte …
Write a function that returns true if two rooks can attack each other, and false otherwise.

Examples
canCapture(["A8", "E8"]) → true

canCapture(["A1", "B2"]) → false

canCapture(["H4", "H3"]) → true

canCapture(["F5", "C8"]) → false

Notes
Assume no blocking pieces.
Two rooks can attack each other if they share the same ro …
Create a function that returns true if two arrays sharing the same length have identical numerical values

To solve this question, your friend initially wrote the following code (see this challenge):
function checkEquals(arr1, arr2) {
  if (arr1 === arr2) {
   return true
  } else {
   …
You are give an array with random words but your program doesn't accept words that begin with the cap

Examples
accepted(["Ducks", "Bears", "Cats"]) → ["Ducks", "Bears"]

accepted(["cars", "trucks", "planes"] → ["cars", trucks", "planes"]

accepted(["Cans …
Create a function that adds a string ending to each member in an array.

Examples
addEnding(["clever", "meek", "hurried", "nice"], "ly")
→ ["cleverly", "meekly", "hurriedly", "nicely"]

addEnding(["new", "pander", "scoop"], "er")
→ ["newer", "panderer", "scooper"]

addEnding(["bend", "sharpen", "mean"], "ing")
→ ["bending", …
You are given 2 out of 3 angles in a triangle, in degrees.

Write a function that classifies the missing angle as either "acute", "right", or "obtuse" based on its degre

An acute angle is less than 90 degrees.
A right angle is exactly 90 degrees.
An obtuse angle is greater than 90 degrees (but less than 180 degrees).

Fo …
Implement a function that returns an array containing all the consecutive numbers in ascendant order fro

Examples
getSequence(1, 5) → [1, 2, 3, 4, 5]

getSequence(98, 100) → [98, 99, 100]

getSequence(1000, 1000) → [1000]

Notes
If you get stuck on a challen …
Given an array of numbers, negate all elements contained within.

Negating a positive value -+n will return -n, because all +'s are removed.
Negating a negative value --n will return n, because the first - turns the second minus into a +.

Examples
negate([1, 2, 3, 4]) → [-1, -2, -3, -4]

negate([-1, 2, -3, 4]) → [1, -2, 3, …
Create a function that takes an array of strings and returns the words that are exactly four letters.

Examples
isFourLetters(["Tomato", "Potato", "Pair"]) → ["Pair"]

isFourLetters(["Kangaroo", "Bear", "Fox"]) → ["Bear"]

isFourLetters(["Ryan", "Kieran", "Jason", "Matt"]) → ["Ryan", "Matt"]

Notes
You can expect valid strin ...
Given an array of integers, return the difference between the largest and smallest integers in the array.

Examples
difference([10, 15, 20, 2, 10, 6]) → 18
// 20 - 2 = 18

difference([-3, 4, -9, -1, -2, 15]) → 24
// 15 - (-9) = 24

difference([4, 17, 12, 2, 10, 2]) → 15

Notes
N/A
Create a function that takes an array of numbers and returns only the even values.

Examples
noOdds([1, 2, 3, 4, 5, 6, 7, 8]) → [2, 4, 6, 8]

noOdds([43, 65, 23, 89, 53, 9, 6]) → [6]

noOdds([718, 991, 449, 644, 380, 440]) → [718, 644, 380, 440]

Notes
Return all even numbers in the order they were given.
All test cases cont ...
In semantic versioning a piece of software can be represented in a format like this example: 6.1.9.

The first number is the major version.
The second number is the minor version.
The third number is the patch (bug fixes).

Write three separate functions, one to retrieve each element in the semantic versioning specification. ...
Create a function to multiply all of the values in an array by the amount of values in the given array.

Examples
multiplyByLength([2, 3, 1, 0]) → [8, 12, 4, 0]

multiplyByLength([4, 1, 1]) → ([12, 3, 3])

multiplyByLength([1, 0, 3, 3, 7, 2, 1]) → [7, 0, 21, 21, 49, 14, 7]

multiplyByLength([0]) → ([0])

Notes

All of the va …
Write a function that returns true if both numbers are:

Smaller than 0, OR ...
Greater than 0, OR ...
Exactly 0

Otherwise, return false.

Examples
both(6, 2) ➞ true

both(0, 0) ➞ true

both(-1, 2) ➞ false

both(0, 2) ➞ false

Notes
Inputs will always be two numbers.
Create a function to remove all null values from an array.

Examples
removeNull(["a", null, "b", null]) ➞ ["a", "b"]

removeNull([null, null, null, null, null]) ➞ []

removeNull([7, 8, null, 9]) ➞ [7, 8, 9]

Notes
N/A
Create a function that takes an array of hurdle heights and a jumper's jump height, and determine wheth

A hurdler can clear a hurdle if their jump height is greater than or equal to the hurdle height.

Examples
hurdleJump([1, 2, 3, 4, 5], 5) ➞ true

hurdleJump([5, 5, 3, 4, 5], …
Create a function that takes an array of numbers and returns the smallest number in the set.

Examples
findSmallestNum([34, 15, 88, 2]) ➞ 2

findSmallestNum([34, -345, -1, 100]) ➞ -345

findSmallestNum([-76, 1.345, 1, 0]) ➞ -76

findSmallestNum([0.4356, 0.8795, 0.5435, -0.9999]) ➞ -0.9999

findSmallestNum([7, 7, 7]) ➞ 7

Not …
You work in a toy car workshop, and your job is to build toy cars from a collection of parts. Each toy car n

Examples
cars(2, 48, 76) ➞ 0
2 wheel …
Create a function that takes an array of values and returns the first and last values in a new array.

Examples
firstLast([5, 10, 15, 20, 25]) ➞ [5, 25]

firstLast(["edabit", 13, null, false, true]) ➞ ["edabit", true]

firstLast([undefined, 4, "6", "hello", null]) ➞ [undefined, null]

Notes
Test input will always contain a m …
Create a function that reverses a boolean value and returns the string "boolean expected" if another vari

Examples
reverse(true) ➞ false

reverse(false) ➞ true

reverse(0) ➞ "boolean expected"

reverse(null) ➞ "boolean expected"

Notes
Don't forget to return the result.
If you get stuck on a challenge, fi …
Given a sandwich (as an array), return an array of fillings inside the sandwich. This involves ignoring the fi

Examples
getFillings(["bread", "ham", "cheese", "ham", "bread"]) ➞ ["ham", "cheese", "ham"]

getFillings(["bread", "sausage", "tomato", "bread"]) ➞ ["sausage", "tomato"]

getFillings(["bread", …
A leap year has one day added to February for being synchronized with the seasonal year. A leap year ap

A year must either be divisible by 400 or divisible by 4 and not 100.

Given a year you must implement a function that returns true if it's a leap year …
Create a function that takes a string and returns a string with its letters in alphabetical order.

Examples
AlphabetSoup("hello") → "ehllo"

AlphabetSoup("edabit") → "abdeit"

AlphabetSoup("hacker") → "acehkr"

AlphabetSoup("geek") → "eegk"

AlphabetSoup("javascript") → "aacijprstv"

Notes
You can assume numbers and punctu …
Create a function that takes an array and returns the difference between the biggest and smallest numbe

Examples
diffMaxMin([10, 4, 1, 4, -10, -50, 32, 21]) → 82
// Smallest number is -50, biggest is 32.

diffMaxMin([44, 32, 86, 19]) → 67
// Smallest number is 19, biggest is 86.

Notes
N/A
Create a function that takes a number as an argument and returns an array of numbers counting down fr

Examples
countdown(5) → [5, 4, 3, 2, 1, 0]

countdown(1) → [1, 0]

countdown(0) → [0]

Notes
The argument will always be greater than or equal to zero.
A value is said to be "truthy" if it evaluates to true in a Boolean context. All values are truthy in JavaScript

    FALSE
null
undefined
        0
NaN

In JavaScript, an empty object and an empty array are both considered "truthy," but an empty string is cc
Create a function that takes a string as its argument and returns the string in reversed order.

Examples
reverse("Hello World") → "dlroW olleH"

reverse("The quick brown fox.") → ".xof nworb kciuq ehT"

reverse("Edabit is really helpful!") → "!lufpleh yllaer si tibadE"

Notes
You can expect a valid string for all test cases.
Create a function that takes in an array and returns true if all its values are even, and false otherwise.

Not a big deal, your friend says. He writes the following code:

```
function checkAllEven(arr) {
  return arr.every(x % 2 === 0)
}
```

The code above leads to a Reference Error, with x being undefined. Fix the code above so …
Your friend is trying to write a function that removes all vowels from a string. They write:

```
function removeVowels(str) {
  return str.replace(/[aeiou]/, "")
}
```
However, it seems that it doesn't work? Fix your friend's code so that it actually does remove all vowels.

Examples
removeVowels("candy") → "cndy"

removeVowels("he …
Create a function that returns the smaller number.

Examples
smallerNum("21", "44") → "21"

smallerNum("1500", "1") → "1"

smallerNum("5", "5") → "5"

Notes
Numbers will be represented as strings, and your output should also be a string.
If both numbers tie, return either number.
Numbers will be positive.
Bonus: See if you c …

Create a function that takes a number (from 1 - 60) and returns a corresponding string of hyphens.

Examples

Go(1) ➞ "-"

Go(5) ➞ "-----"

Go(3) ➞ "---"

Notes

You will be provided integers ranging from 1 to 60.
Don't forget to return your result as a string.
If you get stuck on a challenge, find help in the Resources tab.
I …

Create a function that converts two arrays of x- and y- coordinates into an array of (x, y) coordinates.

Examples

convertCartesian([1, 5, 3, 3, 4], [5, 8, 9, 1, 0])
➞ [[1, 5], [5, 8], [3, 9], [3, 1], [4, 0]]

convertCartesian([9, 8, 3], [1, 1, 1])
➞ [[9, 1], [8, 1], [3, 1]]

Notes

x and y arrays will always be the same length.

Create a function that takes a string of lowercase characters and returns that string reversed and in uppe

Examples

reverseCapitalize("abc") ➞ "CBA"

reverseCapitalize("hellothere") ➞ "EREHTOLLEH"

reverseCapitalize("input") ➞ "TUPNI"

Notes

N/A

Create a function that takes an initial word and extracts any words that start with the same letters as the

Examples

dictionary("bu", ["button", "breakfast", "border"]) ➞ ["button"]

dictionary("tri", ["triplet", "tries", "trip", "piano", "tree"]) ➞ ["triplet", "tries", trip"]

dictionary("beau", ["pastry", "d …

Create a function that takes two strings and returns true if the first string ends with the second string; otl

Examples

checkEnding("abc", "bc") → true

checkEnding("abc", "d") → false

checkEnding("samurai", "zi") → false

checkEnding("feminine", "nine") → true

checkEnding("convention", "tio") → false
 …
Create a function that takes two integers and checks if they are equal.

Examples
isEqual(5, 6) → false

isEqual(1, 1) → true

isEqual("1", 1) → false

Notes
If there is a string then it should return false.
Create a function that accepts a string (of a persons first and last name) and returns a string with the first

Examples
nameShuffle("Donald Trump") → "Trump Donald"

nameShuffle("Rosie O'Donnell") → "O'Donnell Rosie"

nameShuffle("Seymour Butts") → "Butts Seymour"

Notes
There will be exactly one spac …
Create a function that returns true if an input string contains only uppercase or only lowercase letters.

Examples
sameCase("hello") → true

sameCase("HELLO") → true

sameCase("Hello") → false

sameCase("ketcHUp") → false

Notes
N/A
Create a function that takes a string and returns true or false, depending on whether the characters are i

Examples
isInOrder("abc") → true

isInOrder("edabit") → false

isInOrder("123") → true

isInOrder("xyzz") → true

Notes
You don't have to handle empty strings.
A palindrome is a word that is identical forward and backwards.

mom
racecar
kayak

Given a word, create a function that checks whether it is a palindrome.

Examples
checkPalindrome("mom") → true

checkPalindrome("scary") → false

checkPalindrome("reviver") → true

checkPalindrome("stressed") → false

Notes
All test input is …
A number added with its additive inverse equals zero. Create a function that returns an array of additive

Examples
additiveInverse([5, -7, 8, 3]) → [-5, 7, -8, -3]

additiveInverse([1, 1, 1, 1, 1]) → [-1, -1, -1, -1, -1]

additiveInverse([-5, -25, 35]) → [5, 25, -35]

Notes
Don't forget to return the result.
If yo …
Write two functions:

firstArg() should return the first parameter passed in.
lastArg() should return the last parameter passed in.

Examples
firstArg(1, 2, 3) → 1

lastArg(1, 2, 3) → 3

firstArg(8) → 8

lastArg(8) → 8

Notes
Return undefined if the function takes no parameters.
If the function only takes in one parameter, t …
Given an unsorted array, create a function that returns the nth smallest integer (the smallest integer is th

Examples
nthSmallest([1, 3, 5, 7], 1) → 1

nthSmallest([1, 3, 5, 7], 3) → 5

nthSmallest([1, 3, 5, 7], 5) → null

nthSmallest([7, 3, 5, 1], 2 …
A pair of strings form a strange pair if both of the following are true:

The 1st string's first letter = 2nd string's last letter.
The 1st string's last letter = 2nd string's first letter.

Create a function that returns true if a pair of strings constitutes a strange pair, and false otherwise.

Examples
isStrangePair("rati …
Create a function that goes through the array, incrementing (+1) for each odd-valued number and decrem

Examples
transform([1, 2, 3, 4, 5]) → [2, 1, 4, 3, 6]

transform([3, 3, 4, 3]) → [4, 4, 3, 4]

transform([2, 2, 0, 8, 10]) → [1, 1, -1, 7, 9]

Notes
N/A
Create a function that applies a discount d to every number in the array.

Examples
getDiscounts([2, 4, 6, 11], "50%") → [1, 2, 3, 5.5]

getDiscounts([10, 20, 40, 80], "75%") → [7.5, 15, 30, 60]

getDiscounts([100], "45%") → [45]

Notes
The discount is the percentage of the original price (i.e the discount of "75%" to 12 wou …
Write a function that turns a comma-delimited list into an array of strings.

Examples
toArray("watermelon, raspberry, orange")
→ ["watermelon", "raspberry", "orange"]

toArray("x1, x2, x3, x4, x5")
→ ["x1", "x2", "x3", "x4", "x5"]

toArray("a, b, c, d")
→ ["a", "b", "c", "d"]

toArray("")
→ []

Notes
Return an empty array f …
Create a function that filters out an array of state names into two categories based on the second param

Abbreviations abb
Full names full

Examples
filterStateNames(["Arizona", "CA", "NY", "Nevada"], "abb")
→ ["CA", "NY"]

filterStateNames(["Arizona", "CA", "NY", "Nevada"], "full")
→ ["Arizona", "Nevada"]

filterState …
Write a function that takes an integer and returns a string with the given number of "a"s in Edabit.

Examples
howManyTimes(5) → "Edaaaaabit"

howManyTimes(0) → "Edbit"

howManyTimes(12) → "Edaaaaaaaaaaaabit"

Notes
The string must start with "Ed" and end with "bit".

You'll only be given integers as test input.
Create a function that converts a date formatted as MM/DD/YYYY to YYYYDDMM.

Examples
formatDate("11/12/2019") → "20191211"

formatDate("12/31/2019") → "20193112"

formatDate("01/15/2019") → "20191501"

Notes
Return value should be a string.
Create a function that takes two arguments (item, times). The first argument (item) is the item that need

Examples
repeat("edabit", 3) → ["edabit", "edabit", "edabit"]

repeat(13, 5) → [13, 13, 13, …
Write a function that returns true if an object is empty, and false otherwise.

Examples
isEmpty({}) → true

isEmpty({ a: 1 }) → false

Notes
N/A
Write a function that takes an array of elements and returns only the integers.

Examples
returnOnlyInteger([9, 2, "space", "car", "lion", 16]) → [9, 2, 16]

returnOnlyInteger(["hello", 81, "basketball", 123, "fox"]) → [81, 123]

returnOnlyInteger([10, "121", 56, 20, "car", 3, "lion"]) → [10, 56, 20, 3]

returnOnlyInteger([" …
Create a function to calculate the determinant of a 2 * 2 matrix. The determinant of the following matrix

[[a, b], [c, d]]

Examples
calcDeterminant([
  [1, 2],
  [3, 4]
]) → -2

calcDeterminant([
  [5, 3],
  [3, 1]
]) → -4

calcDeterminant([
  [1, 1],
  [1, 1]
]) → 0

Notes
Matrix will be in 2 * 2 form only.
Write a function that returns true if a number is a palindrome.

Examples
isPalindrome(838) → true

isPalindrome(4433) → false

isPalindrome(443344) → true

Notes
A palindrome is a number that remains the same when reversed.
Bonus: Try solving this without turning the number into a string.
Create a function that repeats each character in a string n times.

Examples
repeat("mice", 5) → "mmmmmiiiiiccccceeeee"

repeat("hello", 3) → "hhheeelllllllooo"

repeat("stop", 1) → "stop"

Notes
N/A
Write a function that returns true if there exists at least one number that is larger than or equal to n.

Examples
existsHigher([5, 3, 15, 22, 4], 10) → true

existsHigher([1, 2, 3, 4, 5], 8) → false

existsHigher([4, 3, 3, 3, 2, 2, 2], 4) → true

existsHigher([], 5) → false

Notes

Return false for an empty array [].
This is a reverse coding challenge. Normally you're given explicit directions with how to create a function

Your task is to create a function that, when fed the inputs below, produces the sample outputs shown.

Examples
[5 …
Create a function that filters out an array to include numbers who only have a certain number of digits.

Examples
filterDigitLength([88, 232, 4, 9721, 555], 3) → [232, 555]
// Include only numbers with 3 digits.

filterDigitLength([2, 7, 8, 9, 1012], 1) → [2, 7, 8, 9]
// Include only numbers with 1 digit.

filterDigitLength …
Google's logo can be stretched depending on how many pages it lets you skip forward to.

Image of Goooooooooogle

Let's say we wanted to change the amount of pages that Google could skip to. Create a function where g

Examples
googlify(10) …
Here is a trainwreck of a photo:

You FAILEDPASSED the Exam Required mark is 85% Your score 85%

The challenge is to fix all of the bugs in this incredibly messy code, which the code in the image might've
Fi …
Write a function that partitions the array into two subarrays: one with all even integers, and the other wi

[[evens], [odds]]

Examples
evenOddPartition([5, 8, 9, 2, 0]) → [[8, 2, 0], [5, 9]]

evenOddPartition([1, 0, 1, 0, 1, 0]) → [[0, 0, 0], [1, 1, 1]]

evenO …
Suppose I want to define a function that removes the last element of an array each time I call it, but does

```
function minusOne(arr) {
  arr.pop()
  return arr
}
```

Examples
x = [1, 2, 3, 4, 5]
minusOne(x) → [1, 2, 3, 4] // 1st ti …
Write a function that returns true if all integers in an array are factors of a number, and false otherwise.

Examples
checkFactors([2, 3, 4], 12) → true
// Since 2, 3, and 4 are all factors of 12.

checkFactors([1, 2, 3, 8], 12) → false
// 8 is not a factor of 12.

checkFactors([1, 2, 50], 100) → true

checkFactors([3, 6], …
Create a function that takes a number as an argument and returns "Fizz", "Buzz" or "FizzBuzz".

If the number is a multiple of 3 the output should be "Fizz".
If the number given is a multiple of 5, the output should be "Buzz".
If the number given is a multiple of both 3 and 5, the output should be "FizzBuzz".
If the number i …
Write a function that maps files to their extension names.

Examples
getExtension(["code.html", "code.css"])
→ ["html", "css"]

getExtension(["project1.jpg", "project1.pdf", "project1.mp3"])
→ ["jpg", "pdf", "mp3"]

getExtension(["ruby.rb", "cplusplus.cpp", "python.py", "javascript.js"])
→ ["rb", "cpp", "py", "js"]

Notes
N/A
Write a function that returns true if all characters in a string are identical and false otherwise.

Examples
isIdentical("aaaaaa") → true

isIdentical("aabaaa") → false

isIdentical("ccccca") → false

isIdentical("kk") → true

Notes
N/A
The mean of a group of numbers is calculated by summing all numbers, and dividing this sum by the tota

Examples
mean([1, 6, 6, 7, 8, 8, 9, 10, 10]) → 7.2

mean([1, 3, 8, 9, 9, 10]) → 6.7

mean([2, 3, 3, 6, 6, 8, …
Create a function that returns the product of all odd integers in an array.

Examples
oddProduct([3, 4, 1, 1, 5]) → 15

oddProduct([5, 5, 8, 2, 4, 32]) → 25

oddProduct([1, 2, 1, 2, 1, 2, 1, 2]) → 1

Notes
N/A
Create a function that returns the minimum number of removals to make the sum of all elements in an a

Examples
minimumRemovals([1, 2, 3, 4, 5]) → 1

minimumRemovals([5, 7, 9, 11]) → 0

minimumRemovals([5, 7, 9, 12]) → 1

Notes
If the sum is already even, return 0 (see example #2).
The output will be either 0 or 1.
Sam and Frodo need to be close. If they are side by side in the array, your function should return true. If t

Examples
middleEarth(["Frodo", "Sam", "Gandalf"]) → true

middleEarth(["Frodo", "Saruman", "Sam"]) → false

middleEarth(["Orc", "Sam", "Frodo", "Legolas"]) → true

Notes
No …
Write a function that removes any non-letters from a string, returning a well-known film title.

Examples

lettersOnly("R!=:~0o0./c&}9k`60=y") → "Rocky"

lettersOnly("^,]%4B|@56a![0{2m>b1&4i4") → "Bambi"

lettersOnly("^U)6$22>8p).") → "Up"

Notes
See the Resources section for more information on JavaScript string methods.
Write a function that reverses a string. Make your function recursive.

Examples
reverse("hello") → "olleh"

reverse("world") → "dlrow"

reverse("a") → "a"

reverse("") → ""

Notes
For non-base cases, your function must call itself at least once.
Check the Resources tab for info on recursion.
Create the instance properties fullname and email in the Employee class. Given a person's first and last n

Form the fullname by simply joining the first and last name together, separated by a space.
Form the email by joining the first and last name together with a . in between, and follow it with @comp
Given two strings, create a function that returns the total number of unique characters from the combine

Examples
countUnique("apple", "play") → 5
// "appleplay" has 5 unique characters:
// "a", "e", "l", "p", "y"

countUnique("sore", "zebra") → 7
// "sorezebra" has 7 unique characters:
// "a", "b", "e", "o", "r", …
Create a function that finds all even numbers from 1 to the given number.

Examples
findEvenNums(8) → [2, 4, 6, 8]

findEvenNums(4) → [2, 4]

findEvenNums(2) → [2]

Notes
If there are no even numbers, return an empty array.

Write a function that retrieves the last n elements from an array.

Examples
last([1, 2, 3, 4, 5], 1) → [5]

last([4, 3, 9, 9, 7, 6], 3) → [9, 7, 6]

last([1, 2, 3, 4, 5], 7) → "invalid"

last([1, 2, 3, 4, 5], 0) → []

Notes
Return "invalid" if n exceeds the length of the array.
Return an empty array if n == 0.
Create a function, that will for a given a, b, c, do the following:

Add a to itself b times.
Check if the result is divisible by c.

Examples
abcmath(42, 5, 10) → false
// 42+42 = 84,84+84 = 168,168+168 = 336,336+336 = 672, 672+672 = 1344
// 1344 is not divisible by 10

abcmath(5, 2, 1) → true

abcmath(1, 2, 3) → false

Not …
In this exercise you will have to:

Take a list of names.
Add "Hello" to every name.
Make one big string with all greetings.

The solution should be one string with a comma in between every "Hello (Name)".

Examples
greetPeople(["Joe"]) → "Hello Joe"

greetPeople(["Angela", "Joe"]) → "Hello Angela, Hello Joe"

greetPeople([" …
Write a function that returns the lexicographically first and lexicographically last rearrangements of a stri

firstAndLast(string) → [first, last]

Examples
firstAndLast("marmite") ➞ ["aeimmrt", "trmmiea"]

firstAndLast("bench") ➞ ["bcehn", "nhecb"]

firstAndLast("scoop") ➞ ["c …
Async operations don't always go as planned. When errors creep up we need to know how to handle the

```
let promise = new Promise( (resolve, reject) => {
  setTimeout(( ) => {
    /* something went wrong */
    reject('oops!')
  }, 1000) …
```
A word has been split into a left part and a right part. Re-form the word by adding both halves together,

Examples
getWord("seas", "onal") ➞ "Seasonal"

getWord("comp", "lete") ➞ "Complete"

getWord("lang", "uage") ➞ "Language"

Notes
N/A
Write a function that returns true if two arrays have the same number of unique elements, and false oth

To illustrate:

arr1 = [1, 3, 4, 4, 4]
arr2 = [2, 5, 7]

In arr1, the number 4 appears three times, which means it contains three unique elements: [1, 3, 4]. Sinc
Given an integer n . Your task is to find how many digits contains this integer without using String or Arra

Examples
sumDigits(100) ➞ 3

sumDigits(1000) ➞ 4

sumDigits(1) ➞ 1

Notes
N/A
Write a function that finds the sum of the first n natural numbers. Make your function recursive.

Examples
sum(5) ➞ 15

// 1 + 2 + 3 + 4 + 5 = 15

sum(1) → 1

sum(12) → 78

Notes
Assume the input number is always positive.
Check the Resources tab for info on recursion.
Write a function that finds the sum of an array. Make your function recursive.

Examples
sum([1, 2, 3, 4]) → 10

sum([1, 2]) → 3

sum([1]) → 1

sum([]) → 0

Notes
Return 0 for an empty array.
Check the Resources tab for info on recursion.
Smash factor is a term in golf that relates to the amount of energy transferred from the club head to the

Create a function that takes ball speed bs and club speed cs as arguments and returns the smash factor t

 …
A decimal number can be represented as a sequence of bits. To illustrate:

6 = 00000110
23 = 00010111

From the bitwise representation of numbers, we can calculate the bitwise AND, bitwise OR and bitwise X

bitwiseAND(6, 23) → 00000110

bitwiseOR(6, 23) → 00010111

bitwiseXOR(6, 23) → 00010001

Wr …
Create a function that takes a number as an argument. Add up all the numbers from 1 to the number you

Examples
addUp(4) → 10

addUp(13) → 91

addUp(600) → 180300

Notes
Expect any positive number between 1 …
This challenge will help you interpret mathematical relationships both algebraically and geometrically.

Matchstick Houses, Steps 1, 2 and 3

Create a function that takes a number (step) as an argument and returns the number of matchsticks in th

Examples
matchHouses(1) → 6

ma …
The left shift operation is similar to multiplication by powers of two.

Sample calculation using the left shift operator (<<):
10 << 3 = 10 * 2^3 = 10 * 8 = 80
-32 << 2 = -32 * 2^2 = -32 * 4 = -128
5 << 2 = 5 * 2^2 = 5 * 4 = 20

Write a function that mimics (without the use of <<) the left shift operator and returns the r …
Create a function that takes an array of numbers and return both the minimum and maximum numbers,

Examples
minMax([1, 2, 3, 4, 5]) → [1, 5]

minMax([2334454, 5]) → [5, 2334454]

minMax([1]) → [1, 1]

Notes
All test arrays will have at least one element and are valid.
Christmas Eve is almost upon us, so naturally we need to prepare some milk and cookies for Santa! Creat

Ex …
Your function will be passed two functions, f and g, that don't take any parameters. Your function has to

If f returns the larger number, return the string f.
If g returns the larger number, return the string g.
If the functions retur …
Create a function that returns a base-2 (binary) representation of a base-10 (decimal) string number. To (

Going from right to left, the value of the most right bit is 1, now from that every bit to the left will be x2 1
Create a function that returns true if the first array can be nested inside the second.

arr1 can be nested inside arr2 if:

arr1's min is greater than arr2's min.
arr1's max is less than arr2's max.

Examples
canNest([1, 2, 3, 4], [0, 6]) ➞ true

canNest([3, 1], [4, 0]) ➞ true

canNest([9, 9, 8], [8, 9]) ➞ false

canNest([1 …
The time has a format: hours:minutes. Both hours and minutes has two digits, like 09:00.

Make a regexp to find time in the string: Breakfast at 09:00 in the room 123:456. In this task there's no n

Notes
The solution …
Groups and ranges indicate groups and ranges of expression characters. The regular expression x|y matc

const REGEXP = /blue|green/

red flag.match(REGEXP) // red
blue flag.match(REGEXP) // blue

// Matches "blue" in "blue flag" and "red" in "red flag".

Create a regular expression to match all r …
Promises are just objects that contain the outcome of asynchronous operations. So when do you use one

The promise constructor requires you to pass a function called the executo …
Create a function that calculates the number of different squares in an n * n square grid. Check the Reso

Examples
numberSquares(2) ➞ 5

numberSquares(4) ➞ 30

numberSquares(5) ➞ 55

Notes
Input is a positive integer.
Square pyramidal number.
When resistors are connected together in series, the same current passes through each resistor in the ch

RT = R1 + R2 + R3 ...

Create a function that takes an array of values resistance that are …
Write a function that takes a two-digit number and determines if it's the largest of two possible digit swa

To illustrate:
largestSwap(27) → false

largestSwap(43) → true

If 27 is our input, we should return false because swapping the digits gives us 72, and 72 > 27. On the oth
A word is on the loose and now has tried to hide amongst a crowd of tall letters! Help write a function to

The wanted word is in lowercase.
The crowd of letters is all in uppercase.
Note that the word will be spread out amongst the random letters, but their letters remai …
Create a function that will take a HEX number and returns the binary equivalent (as a string).

Examples
toBinary(0xFF) → "11111111"

toBinary(0xAA) → "10101010"

toBinary(0xFA) → "11111010"

Notes
The number will be always an 8-bit number.
Create a method in the Person class which returns how another person's age compares. Given the instan

* {other person name} is {older than / younger than / the same age as} me. *

Examples
p1 = Person("Sa …
You will be given an array of drinks, with each drink being an object with two properties: name and price

Assume that the following array of drink objects needs to be sorted:

drinks = [
  {name: "lem …
Create a function that takes two arrays and insert the second array in the middle of the first array.

Examples
tuckIn([1, 10], [2, 3, 4, 5, 6, 7, 8, 9]) → [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

tuckIn([15,150], [45, 75, 35]) → [15, 45, 75, 35, 150]

tuckIn([[1, 2], [5, 6]], [[3, 4]]) → [[1, 2], [3, 4], [5, 6]]

Notes
The first ar …
Create a function to return the amount of potatoes there are in a string.

Examples
potatoes("potato") → 1

potatoes("potatopotato") → 2

potatoes("potatoapple") → 1

Notes
N/A
You will be given two extremely similar arrays, but exactly one of the items in an array will be valued sligh

Create a function that returns whether the first array is slightly superior to that of the second.

Examples …
Create a function that takes two strings as arguments and returns the number of times the first string (th

Examples
charCount("a", "edabit") → 1

charCount("c", "Chamber of secrets") → 1

charCount("b", "big fat bubble") → 4

Notes
Your output must be case-sensitive (see sec …
Write a function that returns 0 if the input is 1, and returns 1 if the input is 0.

Examples
flip(1) → 0

flip(0) → 1

Notes
Try completing this challenge without using any:
Conditionals
Ternary operators
Negations
Bit operators
You are given a function with two numbers, a and b. You are also given an output that shows the result o

 …
The police send you the electronic statement again for you to sign. This time you are able to sign it and, t

This challenge is a bit different as the function you are given already contains s …
Given a number, return an array containing the two halves of the number. If the number is odd, make th

Examples
numberSplit(4) → [2, 2]

numberSplit(10) → [5, 5]

numberSplit(11) → [5, 6]

numberSplit(-9) → [-5, -4]

Notes
All numbers will be integers.
You can expect negative numbers too.
Create a function that takes an array of non-negative integers and strings and return a new array without

Examples
filterArray([1, 2, "a", "b"]) → [1, 2]

filterArray([1, "a", "b", 0, 15]) → [1, 0, 15]

filterArray([1, 2, "aasf", "1", "123", 123]) → [1, 2, 123]

Notes
Zero is a non-negative integer.
The given a …
When importing objects from a module in Python, the syntax usually is as follows:

from module_name import object

Given a string of an incorrect import statement, return the fixed string. All import statements will be the

Examples
fixImport("import object from modulename") → "from modulename import object" …
Create a function that takes a number as an argument and returns the appropriate error message. You sh

The input error will be 1 to 5:

1 >> "Check the fan: e1"
2 >> "Emergency stop: e2"
3 >> "Pump Error: e3"
4 >> "c: e4"
5 >> "Temperature Sensor Error: e5"

For any oth …

Given an array of cities and populations, return an array where all populations are rounded to the neares

Examples
millionsRounding([
  ["Nice", 942208],
  ["Abu Dhabi", 1482816],
  ["Naples", 2186853],
  ["Vatican City", 572]
])

[
  ["Nice", 1000000],
  ["Abu Dhabi", 1000000],
  ["Naples", 2000000],
  ["Vatican …

Create a function that takes a string and returns a string in which each character is repeated once.

Examples
doubleChar("String") ➞ "SSttrriinngg"

doubleChar("Hello World!") ➞ "HHeellllloo WWoorrlldd!!"

doubleChar("1234!_ ") ➞ "11223344!!__ "

Notes
All test cases contain valid strings. Don't worry about spaces, special …

Groups and ranges indicate groups and ranges of expression characters. Negated character sets match ar
1234cba5678.match(//g)
// "12345678", matches any character that are not a, b, or c.
 …
Quantifiers indicate numbers of characters or expressions to match.

x{n}

Where n is a positive integer, matches exactly n occurrences of the preceding item x.

candy.match(/a{2}/) ➞ null
caandy.match(/a{2}/) ➞ "aa"

x{n,}

Where n is a positive integer, matches at least n occurrences of the preceding item x.

candy.m …

Given a 10x10 grid of numbers 1-100, return the Spotlight Sum, given a number n. The spotlight sum can

Worked Example

[
  [1, 2, 3, 4, 5, 6, 7, 8, 9, 10],
  [11, 12, 13, 14, 15, 16, 17, 18, 19, 20],
  [21, 22 …

A baseball player's batting average is calculated by the following formula:

BA = (number of hits) / (number of official at-bats)

Batting averages are always expressed rounded to the nearest thousandth with no leading zero. The top

Ty Cobb .366
Rogers Hornsby .358
Shoeless Joe Jacks …

Given a number, return the total sum of that number multiplied by every number between 1 and 10.

Examples
multiSum(1) ➞ 55
// 1 x 1 + 1 x 2 + 1 x 3 …… 1 x 9 + 1 x 10 = 55

multiSum(6) ➞ 330
// 6 x 1 + 6 x 2 + 6 x 3 …… 6 x 9 + 6 x 10 = 330

multiSum(10) ➞ 550

multiSum(8) ➞ 440

multiSum(2) ➞ 110

Notes
Use recursion …

Create a function that returns an array of strings sorted by length in ascending order.

Examples
sortByLength(["a", "ccc", "dddd", "bb"]) ➞ ["a", "bb", "ccc", "dddd"]

sortByLength(["apple", "pie", "shortcake"]) ➞ ["pie", "apple", "shortcake"]

sortByLength(["may", "april", "september", "august"]) ➞ ["may", "april", "august …

Create a function that changes specific words into emoticons. Given a sentence as a string, replace the w

word	emoticon
smile	:D
grin	:)
sad	:(
mad	:P

Examples
emotify("Make me smile") ➞ "Make me :D"

emotify("Make me grin") ➞ "Make me …
Create a function that takes in an array of numbers and returns the sum of its cubes.

Examples
sumOfCubes([1, 5, 9]) ➞ 855
// Since 1^3 + 5^3 + 9^3 = 1 + 125 + 729 = 855

sumOfCubes([3, 4, 5]) ➞ 216

sumOfCubes([2]) ➞ 8

sumOfCubes([]) ➞ 0

Notes
If given an empty array, return 0.
Create a function that takes a number as an argument and returns the highest digit in that number.

Examples
highestDigit(379) ➞ 9

highestDigit(2) ➞ 2

highestDigit(377401) ➞ 7

Notes
Don't forget to return the result.
If you get stuck on a challenge, find help in the Resources tab.
If you're really stuck, unlock solutions …
Given an array of numbers, return an array which contains all the even numbers in the original array, whi

Examples
getOnlyEvens([1, 3, 2, 6, 4, 8]) ➞ [2, 4]

getOnlyEvens([0, 1, 2, 3, 4]) ➞ [0, 2, 4]

getOnlyEvens([1, 2, 3, 4, 5]) ➞ []

Notes
Arrays start at index 0.
Create a function that takes a string and returns the number (count) of vowels contained within it.

Examples
countVowels("Celebration") ➞ 5

countVowels("Palm") ➞ 1

countVowels("Prediction") ➞ 4

Notes
a, e, i, o, u are considered vowels (not y).
All test cases are one word and only contain letters.
Given a number n, write a function that returns PI to n decimal places.

Examples
myPi(5) ➞ 3.14159

myPi(4) ➞ 3.1416

myPi(15) ➞ 3.141592653589793

Notes
n will not be above 15, to keep this challenge simple.
Round up the last digit if the next digit in PI is greater or equal to 5 (see second example above).
The return valu ...
Create a recursive function that takes two parameters and repeats the string n number of times. The first

String.prototype.repeat() is not allowed

Examples
repetition("ab", 3) ➞ "ababab"

repetition("kiw ...
Create a function that takes an array of strings and return an array, sorted from shortest to longest.

Examples
sortByLength(["Google", "Apple", "Microsoft"])
➞ ["Apple", "Google", "Microsoft"]

sortByLength(["Leonardo", "Michelangelo", "Raphael", "Donatello"])
➞ ["Raphael", "Leonardo", "Donatello", "Michelangelo"]

sortByL ...
The insurance guy calls again and apologizes. They found another policy made by your spouse, but this or

Given an object of the stolen items and a limit, return the difference between the t ...
Create a function that takes an array as an argument and returns true or false depending on whether the

Examples
isAvgWhole([1, 3]) ➞ true

isAvgWhole([1, 2, 3, 4]) ➞ false

isAvgWhole([1, 5, 6]) ➞ true

isAvgWhole([1, 1, 1]) ➞ true

isAvgWhole([9, 2, 2, 5]) ➞ f …
Take an array of integers (positive or negative or both) and return the sum of the absolute value of each

Examples
getAbsSum([2, -1, 4, 8, 10]) ➞ 25

getAbsSum([-3, -4, -10, -2, -3]) ➞ 22

getAbsSum([2, 4, 6, 8, 10]) ➞ 30

getAbsSum([-1]) ➞ 1

Notes
The term "absolute value" means to remove any negative sign in fro …
Write a function that calculates the factorial of a number recursively.

Examples
factorial(5) ➞ 120

factorial(3) ➞ 6

factorial(1) ➞ 1

factorial(0) ➞ 1

Notes
N/A
Create a function that takes an array of numbers and returns a new array, sorted in ascending order (sma

Sort numbers array in ascending order.
If the function's argument is null, an empty array, or undefined; return an empty array.
Return a new array of sorted numbers.

Examples
sortNumsAscending([1, 2, 1 …
Create a function that finds the word "bomb" in the given string (not case sensitive). If found, return "Du

Examples
bomb("There is a bomb.") ➞ "Duck!!!"

bomb("Hey, did you think there is a bomb?") ➞ "Duck!!!"

bomb("This goes boom!!!") → "There is no bomb, relax."

Notes …
Create a function that takes an integer and returns the factorial of that integer. That is, the integer multip

Examples
factorial(3) → 6

factorial(5) → 120

factorial(13) → 6227020800

Notes
Assume all inputs are greater than or equal to 0.
Create a function that takes a string and returns a new string with all vowels removed.

Examples
removeVowels("I have never seen a thin person drinking Diet Coke.")
→ " hv nvr sn thn prsn drnkng Dt Ck."

removeVowels("We're gonna build a wall!")
→ "W'r gnn bld wll!"

removeVowels("Happy Thanksgiving to all--even the hater …
Create a function that returns the index of the first vowel in a string.

Examples
firstVowel("apple") → 0

firstVowel("hello") → 1

firstVowel("STRAWBERRY") → 3

firstVowel("pInEaPPLe") → 1

Notes
Input will be single words.
Characters in words will be upper or lower case.
y is not considered a vowel.
Input always contain …
In this challenge you will be given a relation between two numbers, written as a string. Write a function t

Examples
isTrue("2=2") → true

isTrue("84") → true

Notes
Tests will only have three types of relations: =, >, and <
Many approaches work here, but the eval() function i …
Create a function that takes an array of numbers and returns the mean (average) of all those numbers.

Examples
mean([1, 0, 4, 5, 2, 4, 1, 2, 3, 3, 3]) → 2.55

mean([2, 3, 2, 3]) → 2.50

mean([3, 3, 3, 3, 3]) → 3.00

Notes
Round to two decimal places.
You can expect a number ranging from 0 to 10,000.
Write a regular expression that matches only an even number. Numbers will be presented as strings.

Examples
2341 → false

132 → true

29 → false

5578 → true

Notes
This challenge is designed for RegEx only.
Create a function that takes an array of arrays with numbers. Return a new (single) array with the largest

Examples
findLargestNums([[4, 2, 7, 1], [20, 70, 40, 90], [1, 2, 0]]) → [7, 90, 2]

findLargestNums([[-34, -54, -74], [-32, -2, -65], [-54, 7, -43]]) → [-34, -2, 7]

findLargestNums([[0.4321, 0.7634, 0 …
Given an array of scrabble tiles, create a function that outputs the maximum possible score a player can a

Here's an example hand:
[
 { tile: "N", score: 1 },
 { tile: "K", score: 5 },
 { tile: "Z", score: …
Create a function that takes any non-negative number as an argument and return it with its digits in desc

Examples
sortDescending(123) → 321

sortDescending(1254859723) ➞ 9875543221

sortDescending(73065) ➞ 76530

Notes
You can expect non-negative number …
A set is a collection of unique items. A set can be formed from an array by removing all duplicate items.

[1, 3, 3, 5, 5, 5]
// original array

[1, 3, 5]
// original array transformed into a set

Create a function that sorts an array and removes all duplicate items from it.

Examples
set([1, 3, 3, 5, 5]) ➞ [1, 3, 5]

set([4 …
Write a function that takes a string name and a number num (either 0 or 1) and return "Hello" + name if

Examples
sayHelloBye("alon", 1) ➞ "Hello Alon"

sayHelloBye("Tomi", 0) ➞ "Bye Tomi"

sayHelloBye("jose", 0) ➞ "Bye Jose"

Notes
The name you return must be capitalized.
Create a function that takes an array of 10 numbers (between 0 and 9) and returns a string of those num

Examples
formatPhoneNumber([1, 2, 3, 4, 5, 6, 7, 8, 9, 0]) ➞ "(123) 456-7890"

formatPhoneNumber([5, 1, 9, 5, 5, 5, 4, 4, 6, 8]) ➞ "(519) 555-4468"

formatPhoneNumber …
In this challenge, you must generate a sequence of consecutive numbers, from a lower bound that will al

Each number of the sequence that can be exactly divided by 4 must be amplified by 10 (see notes below)

Given a higher bound …
Create a function that takes a number as an argument and returns true or false depending on whether th

Examples

isSymmetrical(7227) → true

isSymmetrical(12567) → false

isSymmetrical(44444444) → true

isSymmetrical(9939) → false

isS …
Welcome to the beginning of this collection on Computer Science Algorithms. Admittedly there are other

Recursion
In computer science, "recur …
Create a function that takes a string as input and capitalizes a letter if its ASCII code is even and returns it

Examples
asciiCapitalize("to be or not to be!") → "To Be oR NoT To Be!"

asciiCapitalize("THE LITTLE MERMAID") → "THe LiTTLe meRmaiD"

asciiCapitalize("Oh what a beau …
Create a function that returns the number of hashes and pluses in a string.

Examples
hashPlusCount("###+") → [3, 1]

hashPlusCount("##+++#") → [3, 3]

hashPlusCount("#+++#+#++#") → [4, 6]

hashPlusCount("") → [0, 0]

Notes
Return [0, 0] for an empty string.
Return in the order of [hashes, pluses].
A group of friends have decided to start a secret society. The name will be the first letter of each of their

Create a function that takes in an array of names and returns the name of the secret society.

Examples
societyName(["Adam", "Sarah", "Malcolm"]) → "AMS"

societyName(["Harry", " …
Create a function that takes three parameters where:

x is the start of the range (inclusive).

y is the end of the range (inclusive).
n is the divisor to be checked against.

Return an ordered array with numbers in the range that are divisible by the third parameter n. Return an
Given a string, create a function to reverse the case. All lower-cased letters should be upper-cased, and v

Examples
reverseCase("Happy Birthday") ➞ "hAPPY bIRTHDAY"

reverseCase("MANY THANKS") ➞ "many thanks"

reverseCase("sPoNtAnEoUs") ➞ "SpOnTaNeOuS"

Notes
N/A
Given an array of 10 numbers, return the maximum possible total made by summing just 5 of the 10 nur

Examples
maxTotal([1, 1, 0, 1, 3, 10, 10, 10, 10, 1]) ➞ 43

maxTotal([0, 0, 0, 0, 0, 0, 0, 0, 0, 100]) ➞ 100

maxTotal([1, 2, 3, 4, 5, 6, 7, 8, 9, 10]) ➞ 40

Notes
N/A
Zip codes consist of 5 consecutive digits. Given a string, write a function to determine whether the input

Must only contain numbers (no non-digits allowed).
Must not contain any spaces.
Must not be greater than 5 digits in length.

Examples
isValid("59001") ➞ true

isVal …
Create a function to convert an array of percentages to their decimal equivalents.

Examples
convertToDecimal(["1%", "2%", "3%"]) ➞ [0.01, 0.02, 0.03]

convertToDecimal(["45%", "32%", "97%", "33%"]) ➞ [0.45, 0.32, 0.97, 0.33]

convertToDecimal(["33%", "98.1%", "56.44%", "100%"]) ➞ [0.33, 0.981, 0.5644, 1]

Notes
N/A

A value is omnipresent if it exists in every subarray inside the main array.

To illustrate:

[[3, 4], [8, 3, 2], [3], [9, 3], [5, 3], [4, 3]]
// 3 exists in every element inside this array, so is omnipresent.

Create a function that determines whether an input value is omnipresent for a given array.

Examples
isOmnipresent(…
Check if a string title is a title string or not. A title string is one which has all the words in the string start v

Examples
checkTitle("A Mind Boggling Achievement") ➞ true

checkTitle("A Simple Java Script Program!") ➞ true

checkTitle("Water is transparent") ➞ false

Notes
N/A
Given a string of numbers separated by a comma and space, return the total of all the numbers.

Examples
addNums("2, 5, 1, 8, 4") ➞ 20

addNums("1, 2, 3, 4, 5, 6, 7") ➞ 28

addNums("10") ➞ 10

Notes
Numbers will always be separated by a comma and space.
Your function should accept negative numbers.
Write a function that transforms all letters from [a, m] to 0 and letters from [n, z] to 1 in a string.

Examples
convertBinary("house") ➞ "01110"

convertBinary("excLAIM") ➞ "0100000"

convertBinary("moon") ➞ "0111"

Notes
Conversion should be case insensitive (see example #2).
Write two functions:

toArray(), which converts a number to an array of its digits.
toNumber(), which converts an array of digits back to its number.

Examples
toArray(235) ➞ [2, 3, 5]

toArray(0) ➞ [0]

toNumber([2, 3, 5]) ➞ 235

toNumber([0]) ➞ 0

Notes
All test cases will be weakly positive numbers: >= 0
Write a function that takes a string as an argument and returns the left most digit in the string.

Examples
leftDigit("TrAdE2W1n95!") ➞ 2

leftDigit("V3r1ta$") ➞ 3

leftDigit("U//DertHe1nflu3nC3") ➞ 1

leftDigit("J@v@5cR1PT") ➞ 5

Notes
Each string will have at least two numbers.
Return the result as an integer.
You are given the length of a video in minutes. The format is mm:ss (e.g.: "02:54"). Create a function that

Examples
minutesToSeconds("01:00") ➞ 60

minutesToSeconds("13:56") ➞ 836

minutesToSeconds("10:60") ➞ false

Notes
The video length is given as a string.
If the number …
Given an object of how many more pages each ink color can print, output the maximum number of pages

Examples
inkLevels({
  "cyan": 23,
  "magenta": 12,
  "yellow": 10

}) → 10

inkLevels({
  "cyan": 432,
  "magenta": 543,
  "yellow": 777
}) → 432

inkLevels({
  "cyan": …
Create a function that accepts a string of space separated numbers and returns the highest and lowest nu

Examples
highLow("1 2 3 4 5") → "5 1"

highLow("1 2 -3 4 5") → "5 -3"

highLow("1 9 3 4 -5") → "9 -5"

highLow("13") → "13 13"

Notes
All numbers are valid Int32, no need to validate them.
There will a …
Given an array and an integer n, return the sum of the first n numbers in the array.

Worked Example
sliceSum([9, 8, 7, 6], 3) → 24
// The parameter n is specified as 3.
// The first 3 numbers in the list are 9, 8 and 7.
// The sum of these 3 numbers is 24 (9 + 8 + 7).
// Return the answer.

Examples
sliceSum([1, 3, 2], 2) → …
Create a function that returns true if the first array is a subset of the second. Return false otherwise.

Examples
isSubset([3, 2, 5], [5, 3, 7, 9, 2]) → true

isSubset([8, 9], [7, 1, 9, 8, 4, 5, 6]) → true

isSubset([1, 2], [3, 5, 9, 1]) → false

Notes
Both arrays will contain only unique values.
Create a function to count the number of 1s in a 2D array.

Examples
countOnes([
  [1, 0],
  [0, 0]
]) ➞ 1

countOnes([
  [1, 1, 1],
  [0, 0, 1],
  [1, 1, 1]
]) ➞ 7

countOnes([
  [1, 2, 3],
  [0, 2, 1],
  [5, 7, 33]
]) ➞ 2

Notes
N/A
Assume a program only reads .js or .jsx files. Write a function that accepts a file path and returns true if it

Examples
isJS("/users/user.jsx") ➞ true

isJS("/users/user.js") ➞ true

isJS("/users/user.ts") ➞ false

Notes
Use a RegEx boundary assertion in your function.
Create a function that returns the number of decimal places a number (given as a string) has. Any zeros a

Examples
getDecimalPlaces("43.20") ➞ 2

getDecimalPlaces("400") ➞ 0

getDecimalPlaces("3.1") ➞ 1

Notes
Return 0 if the number doesn't have any decimal p …
Write a function that takes all even-indexed characters and odd-indexed characters from a string and co

To illustrate:
indexShuffle("abcd") ➞ "acbd"

// "ac" (even-indexed) + "bd" (odd-indexed)

Examples
indexShuffle("abcdefg") ➞ "acegbdf"

indexShuffle("holiday") ➞ "hldyoia"

indexShuffle("maybe") …
According to the lodash documentation, _.dropRight Creates a slice of an array with n elements dropped

This challenge requires you to write your own version of this function without using lodash so that you ca

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

dropRight([1, 2, 3], 2) ➞ [1]
 …
Write a function that returns the number of users in a chatroom based on the following rules:

If there is no one, return "no one online".
If there is 1 person, return "user1 online".
If there are 2 people, return "user1 and user2 online".
If there are n>2 people, return the first two names and add "and n-2 more online".

Fo …
Write a regular expression that matches a string if and only if it is a valid zip code.

Examples
32554 ➞ true

92 342 ➞ false
// Invalid: contains a whitespace

9@342 ➞ false
// Invalid: contains a non-numeric character

923444 ➞ false
// Invalid: length is not 5

Notes
Zipcodes must be 5 digits long exactly and onl …
Create two functions: isPrefix(word, prefix-) and isSuffix(word, -suffix).

isPrefix should return true if it begins with the prefix argument.
isSuffix should return true if it ends with the suffix argument.

Otherwise return false.

Examples
isPrefix("automation", "auto-") ➞ true

isSuffix("arachnophobia", "-phobia") ➞ true …
You need to detect what browser is being used. Create a function that takes a string (browser identifier)

Examples
detectBrowser("Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Cl

detectBrowser("Mozilla/5.0 (W …
Write a function that takes a credit card number and only displays the last four characters. The rest of the

Examples
cardHide("1234123456785678") ➞ "**5678"

cardHide("8754456321113213") ➞ "**3213"

cardHide("35123413355523") ➞ "**5523"

Examples
Ensure you return a string.
The length of …
Create a function which takes in a word and spells it out, by consecutively adding letters until the full wor

Examples
spelling("bee") ➞ ["b", "be", "bee"]

spelling("happy") ➞ ["h", "ha", "hap", "happ", "happy"]

spelling("eagerly") ➞ ["e", "ea", "eag", "eage", "eager", "eagerl", "eagerly"]

Notes
N/A
Write a function that receives two portions of a path and joins them. The portions will be joined with the

Examples
joinPath("portion1", "portion2") ➞ "portion1/portion2"

joinPath("portion1/", "portion2") ➞ "portion1/portion2"

jo …
Given a word, write a function that returns the first index and the last index of a character.

Examples
charIndex("hello", "l") ➞ [2, 3]
// The first "l" has index 2, the last "l" has index 3.

charIndex("circumlocution", "c") → [0, 8]
// The first "c" has index 0, the last "c" has index 8.

charIndex("happy", "h") → [0, 0] …
Steve and Maurice have racing snails. They each have three, a slow s, medium m and fast f one. Although

Round 1: [s, f] Sacrifice his slowest snail against Steve's fastest.
Round 2: [m, s] Use his middle snail against Steve' …
Create a function which returns the number of true values there are in an array.

Examples
countTrue([true, false, false, true, false]) → 2

countTrue([false, false, false, false]) → 0

countTrue([]) → 0

Notes
Return 0 if given an empty array.
All array items are of the type bool (true or false).
Write a function redundant that takes in a string str and returns a function that returns str.

Examples
const f1 = redundant("apple")
f1() → "apple"

const f2 = redundant("pear")
f2() → "pear"

const f3 = redundant("")
f3() → ""

Notes
Your function should return a function, not a string.
If you've completed this RegEx series from I to XXII then you have been exposed to all of MDN's documen
In a board game, a piece may advance 1-6 tiles forward depending on the number rolled on a six-sided di

Given you and your friend's tile number, create a function that returns if it's possible to earn a bonus whe
The right shift operation is similar to floor division by powers of two.

Sample calculation using the right shift operator (>>):

80 >> 3 = floor(80/2^3) = floor(80/8) = 10
-24 >> 2 = floor(-24/2^2) = floor(-24/4) = -6
-5 >> 1 = floor(-5/2^1) = floor(-5/2) = -3

Write a function that mimics (without the use of >>) the rig …
Write a function that takes a number and returns the perimeter of either a circle or a square. The input w

Use the following formulas:

Perime …
Create a function that will return an integer number containing the amount of digits in the given integer

Examples
numofdigits(1000) ➞ 4

numofdigits(12) ➞ 2

numofdigits(1305981031) ➞ 10

numofdigits(0) ➞ 1

Notes
Try to solve this challenge without using strings!
Given three arguments ⬜— an object obj of the stolen items, the pets name and a value ⬜— return an ob

Examples
addName({}, "Brutus", 300) ➞ { Brutus: 300 }

addName({ piano: 500 }, "Brutus", 400) ➞ { piano: 500, Brutus: 400 }

addName({ piano: 500, stereo: 300 }, "Cal …
Create a function that takes numbers b and m as arguments and returns the derivative of the function f(x

Examples
derivative(1, 4) ➞ 1

derivative(3, -2) ➞ 12

derivative(4, -3) ➞ -108

Notes
^ in the context of this challenge means "to the power of", al …
Try finding your ancestors and offspring with code.

Create a function that takes a number x and a character y ("m" for male, "f" for female), and returns the

If the number is negative, return the related ancestor.
If positive, return the related descendant.
You are generation …
A tetrahedron is a pyramid with a triangular base and three sides. A tetrahedral number is a number of i

Create a function that takes an integer n and returns the nth tetrahedral number.

Alternative Text

Examples
tetra(2) ➝ 4

tetra(5) ➝ 35

tetra(6) ➝ 56

Notes
There is a formula for the nth te …
According to the lodash documentation, _.compact creates an array with all falsey values removed. The v

Your task is to build this helper function without using lodash. You will write a function that receives an a

Examples
compact([0 …
Create a function that takes a "base number" as an argument. This function should return another functi

Please check the examples below for a clearer representation of the behavior expected.

Examples

// Calling makePlusFunction(5) …
Given a number, n, return a function which adds n to the number passed to it.

Examples
add(10)(20) ➝ 30

add(0)(20) ➝ 20

add(-30)(80) ➝ 50

Notes
All numbers used in the tests will be integers (whole numbers).
Returning a function from a function is a key part of understanding higher order functions (functions whi
Write a function that converts an object into an array, where each element represents a key-value pair in

Examples
toArray({ a: 1, b: 2 }) ➝ [["a", 1], ["b", 2]]

toArray({ shrimp: 15, tots: 12 }) ➝ [["shrimp", 15], ["tots", 12]]

toArray({}) ➝ []

Notes
Return an empty array if the object is empty.
Create a function that concatenates n input arrays, where n is variable.

Examples
concat([1, 2, 3], [4, 5], [6, 7]) → [1, 2, 3, 4, 5, 6, 7]

concat([1], [2], [3], [4], [5], [6], [7]) → [1, 2, 3, 4, 5, 6, 7]

concat([1, 2], [3, 4]) → [1, 2, 3, 4]

concat([4, 4, 4, 4, 4]) → [4, 4, 4, 4, 4]

Notes
Arrays should be concatenated …
Write a function that returns an anonymous function, which transforms its input by adding a particular su

Examples
addly = addsuffix("ly")

add_ly("hopeless") → "hopelessly"
add_ly("total") → "totally"

addless = addsuffix("less")

add_less("fear") → "fearless"
add_less("ruth") → "ruthless"

Notes
N/A
This Triangular Number Sequence is generated from a pattern of dots that form a triangle. The first 5 nur

1, 3, 6, 10, 15

This means that the first triangle has just one dot, the second one has three dots, the third one has 6 dot

Write a function that returns the number of do …
Your task is to create a Circle constructor that creates a circle with a radius provided by an argument. The

For help with this class, I have provided you with a Rectangle …
Given a total due and an array representing the amount of change in your pocket, determine whether or

To illustrate: changeEnough([25, 20, 5, 0], 4.25) should yield true, since having 25 quarter …
Create a function that takes two numbers as arguments (num, length) and returns an array of multiples c

Examples
arrayOfMultiples(7, 5) → [7, 14, 21, 28, 35]

arrayOfMultiples(12, 10) → [12, 24, 36, 48, 60, 72, 84, 96, 108, 120]

arrayOfMultiples(17, 6) → [17, 34, 51, 68, 85, 102] …
Create a function that takes an object and returns the keys and values as separate arrays. Return the key

Examples
keysAndValues({ a: 1, b: 2, c: 3 })
→ [["a", "b", "c"], [1, 2, 3]]

keysAndValues({ a: "Apple", b: "Microsoft", c: "Google" })
→ [["a", …
Write a function that converts an object into an array of keys and values.

Examples
objectToArray({
  D: 1,
  B: 2,
  C: 3
}) → [["D", 1], ["B", 2], ["C", 3]]

objectToArray({
  likes: 2,
  dislikes: 3,
  followers: 10
}) → [["likes", 2], ["dislikes", 3], ["followers", 10]]

Notes
N/A
Write a class called Rectangle that represents a rectangular two-dimensional region. It should have the fc

constructor(x, y, width, height)

Constructs a new rectangle whose top-left corner is specified by the given coordinates and with the giver

It should have the following properties …
Create a function that validates whether a number n is within the bounds of lower and upper. Return fal

Examples
intWithinBounds(3, 1, 9) → true

intWithinBounds(6, 1, 6) → false

intWithinBounds(4.5, 3, 8) → false

Notes
The term "within bounds" means a number is considered equal or greater than …

Create a function that counts the integer's number of digits.

Examples
count(318) ➞ 3

count(-92563) ➞ 5

count(4666) ➞ 4

count(-314890) ➞ 6

count(654321) ➞ 6

count(638476) ➞ 6

Notes
For an added challenge, try to solve this without using strings.
Alternatively, you can solve this via a recursive approach.
A reversion o …
A repdigit is a positive number composed out of the same digit. Create a function that takes an integer ar

Examples
isRepdigit(66) ➞ true

isRepdigit(0) ➞ true

isRepdigit(-11) ➞ false

Notes
The number 0 should return true (even though it's not a positive number).
Check the Resource …
In this challenge you will be given an array similar to the following:

[[3], 4, [2], [5], 1, 6]

In words, elements of the array are either an integer or an array containing a single integer. We humans

[1, [2], [3], 4, […
Create a function that takes in a number as a string n and returns the number without trailing and leading

Trailing Zeros are the zeros after a decimal point which don't affect the value
(e.g. the last three zeros in 3.4000 and 3.04000).
Leading Zeros are the zeros before a whole number which don't affect the value (…
Create a function that returns true if two arrays contain identical values, and false otherwise.

To solve this question, your friend writes the following code:
function checkEquals(arr1, arr2) {

```
if (arr1 === arr2) {
  return true
 } else {
  return false
 }
}
```
But testing the code, you see that something is not quite right.
 ...
I'm trying to write a function to flatten an array of subarrays into one array. (Suppose I am unware there

Here is my code:

```
function flatten(arr) {
  arr2 = [];
  for (let i = 0; i < arr.length; i++) { ...
```
A salesman has a number of cities to visit. They want to calculate the total number of possible paths they

If we have cities A, B and C, possible paths would be:

A -> B -> C
A -> C -> ...

Write a function that returns an anonymous function, which adds n to its input

Examples
adds1 = addsNum(1)

adds1(3) ➔ 4
adds1(5.7) ➔ 6.7

adds10 = addsNum(10)

adds10(44) ➔ 54
adds10(20) ➔ 30

Notes
N/A

Create a function that returns the thickness (in meters) of a piece of paper after folding it n number of tir

Examples
numLayers(1) ➔ "0.001m"
// Paper folded once is 1mm (equal to 0.001m)

numLayers(4) ➔ "0.008m"
// Paper folded 4 times is 8mm (equal to 0.008m)

numLayers(...

Create a function that takes an array of numbers and returns the second largest number.

Examples
secondLargest([10, 40, 30, 20, 50]) → 40

secondLargest([25, 143, 89, 13, 105]) → 105

secondLargest([54, 23, 11, 17, 10]) → 23

Notes
There will be at least two numbers in the array.
Create a function that takes two numbers and a mathematical operator + - / * and will perform a calculat

Examples
calculator(2, "+", 2) → 4

calculator(2, "*", 2) → 4

calculator(4, "/", 2) → 2

Notes
If the input tries to divide by 0, return: "Can't divide by 0!"
Create a function to check whether the given parameter is an Object or not.

Examples
isObject(function add(x,y) {return x + y}) → true

isObject(new RegExp('^[a-zA-Z0-9]+$', 'g')) → true

isObject(null) → false

isObject("") → false

Notes
Inputs may be null, primitive wrapper types, dates.
Create a function that takes the height and radius of a cone as arguments and returns the volume of the

Volume of a Cone Image

Examples
coneVolume(3, 2) → 12.57

coneVolume(15, 6) → 565.49

coneVolume(18, 0) → 0

Notes
See the resources tab for the formula.

Return approximate answer …
Create a function that takes two arguments: the final price and the discount percentage as integers and r

Alternative Text

Examples
dis(1500, 50) ➞ 750

dis(89, 20) ➞ 71.2

dis(100, 75) ➞ 25

Notes
Your answer should be rounded to two decimal places.
Create a function that takes a country's name and its area as arguments and returns the area of the coun

Examples
areaOfCountry("Russia", 17098242) ➞ "Russia is 11.48% of the total world's landmass"

areaOfCountry("USA", 9372610), "USA is 6.29% of the total world's landmass"

a …
Create a function that squares every digit of a number.

Examples
squareDigits(9119) ➞ 811181

squareDigits(2483) ➞ 416649

squareDigits(3212) ➞ 9414

Notes
The function receives an integer and must return an integer.
The Code tab has a code which attempts to add a clone of an array to itself. There is no error message, bu

Examples
clone([1, 1]) ➞ [1, 1, [1, 1]]

clone([1, 2, 3]) ➞ [1, 2, 3, [1, 2, 3]]

clone(["x", "y"]) ➞ ["x", "y", ["x", "y"]]

Notes
N/A
Given radius r and height h (in cm), calculate the mass of a cylinder when it's filled with water and the cyl

How to solve:

Calculate the volume of the cylinder.
Convert cm³ into dm³.
1dm³ = 1L, 1L is 1Kg.

Examp …
Create a function that takes in an array (slot machine outcome) and returns true if all elements in the arr

Examples
testJackpot(["@", "@", "@", "@"]) → true

testJackpot(["abc", "abc", "abc", "abc"]) → true

testJackpot(["SS", "SS", "SS", "SS"]) → tru …
You're given a string of words. You need to find the word "Nemo", and return a string like this: "I found N

If you can't find Nemo, return "I can't find Nemo :(".

Examples
findNemo("I am finding Nemo !") → "I found Nemo at 4!"

findNemo("Nemo is me") → "I found Nemo at 1!"

fi …
Create a function that moves all capital letters to the front of a word.

Examples
capToFront("hApPy") → "APhpy"

capToFront("moveMENT") → "MENTmove"

capToFront("shOrtCAKE") → "OCAKEshrt"

Notes
Keep the original relative order of the upper and lower case letters the same.
Given an input string, reverse the string word by word, the first word will be the last, and so on.

Examples
reverseWords(" the sky is blue") → "blue is sky the"

reverseWords("hello   world! ") → "world! hello"

reverseWords("a good example") → "example good a"

Notes
A word is defined as a sequence of non-space character …
Mary wants to run a 25-mile marathon. When she attempts to sign up for the marathon, she notices the

Return true if the marathon is 25 miles …

Create a function which concatenates the number 7 to the end of every chord in an array. Ignore all chor

Examples
jazzify(["G", "F", "C"]) → ["G7", "F7", "C7"]

jazzify(["Dm", "G", "E", "A"]) → ["Dm7", "G7", "E7", "A7"]

jazzify(["F7", "E7", "A7", "Ab7", "Gm7", "C7"]) → ["F7", "E7", "A7", "Ab7", …

Create a function that takes a number (step) as an argument and returns the amount of boxes in that ste

Box Sequence Image

Step 0: Start with 0
Step 1: Add 3
Step 2: Subtract 1
Repeat Step 1 & 2 …

Examples
boxSeq(0) → 0

boxSeq(1) → 3

boxSeq(2) → 2

Notes
Step (the input) is always a positive integer …

Given an array of boxes, create a function that returns the total volume of all those boxes combined toge

For instance, totalVolume([2, 3, 2], [6, 6, 7], [1, 2, 1]) should return 266 since (2 x 3 x 2) + (6 x 6 x 7) + (1 ×

Return the sum of all items in an array, where each item is multiplied by its index (zero-based). For empt

Examples
indexMultiplier([1, 2, 3, 4, 5]) → 40
// (1·0 + 2·1 + 3·2 + 4·3 + 5*4)

indexMultiplier([-3, 0, 8, -6]) → -2
// (-3·0 + 0·1 + 8·2 + -6·3)

Notes
All items in the array will be integers.

An array is special if every even index contains an even number and every odd index contains an odd nun

Examples
isSpecialArray([2, 7, 4, 9, 6, 1, 6, 3]) → true
// Even indices: [2, 4, 6, 6]; Odd indices: [7, 9, 1, 3]

isSpecialArray([2, 7, …
Arrays can be mixed with various types. Your task for this challenge is to sum all the number elements in

Examples
numbersSum([1, 2, "13", "4", "645"]) ➞ 3

numbersSum([true, false, "123", "75"]) ➞ 0

numbersSum([1, 2, 3, …
You can think of character classes as characters with special meaning. They are recognized as special whe

Here are a list of the characters classes in JavaScript:

., \cX, \d, \D, \f, \n, \r, \s, \S, \t, \v, \w, \W, \0, \xhh, \uhhhh, \uhhhhh, [\b]

We have the \t and \v character class …
Create a function that takes an array of numbers arr, a string str and return an array of numbers as per th

Asc returns a sorted array in ascending order.
Des returns a sorted array in descending order.
None returns an array without any modification.

Examples
ascDesNone([4, 3, 2, 1], "Asc") ➞ [1, 2 …
Mubashir has written a mysterious function that takes two numbers a and b and returns multiplication?.

Examples
mubashirFunction(0, 1) ➞ 0

mubashirFunction(1, 2) ➞ 2

mubashirFunction(10, 10) ➞ 1

Notes
Check the Tests tab for m …
Mubashir was reading about currying functions. He needs your help to multiply an array of numbers usir

Create a function which takes a array arr of integers as an argument. This function must return another fu

The returned arr …
A graph is a set of nodes and edges that connect those nodes.

Graph Example

There are two types of graphs; directed and undirected. In an undirected graph, the edges between node
Count the amount of ones in the binary representation of an integer. For example, since 12 is 1100 in bin

Examples
countOnes(0) → 0

countOnes(100) → 3

countOnes(999) → 8

Notes
The input will always be a valid integer (number).
Write a program that takes a temperature input in celsius and converts it to Fahrenheit and Kelvin. Retur

The formula to calculate the temperature in Fahrenheit from Celsius is:

F = C*9/5 +32

The formula to calculate the temperature in Kelvin from Celsius is:

K = C + 273.15
 …
Create a function that takes an integer n and reverses it.

Examples
rev(5121) → "1215"

rev(69) → "96"

rev(-122157) → "751221"

Notes
This challenge is about using two operators that are releated to division.
If the number is negative, treat it like it's positive.
Create the function that takes an array with objects and returns the sum of people's budgets.

Examples
getBudgets([
 { name: "John", age: 21, budget: 23000 },
 { name: "Steve", age: 32, budget: 40000 },
 { name: "Martin", age: 16, budget: 2700 }
]) → 65700

getBudgets([
 { name: "John", age: 21, budget: 29000 },
 { …
Create a function that takes an array of items and checks if the last item matches the rest of the array co

Examples

matchLastItem(["rsq", "6hi", "g", "rsq6hig"]) → true
// The last item is the rest joined.

matchLastItem([1, 1, 1, "11"]) → false
// The last item should be "111".

matchLastItem([8, "thun …
You just returned home to find your mansion has been robbed! Given an object of the stolen items, retur

Examples
```
const stolenItems = {
  tv: 30,
  skate: 20,
  stereo: 50,
} → 100
```

```
const stolenItems = {
  painting: 20000,
} → …
```
Write a function that takes coordinates of two points on a two-dimensional plane and returns the length

Examples
lineLength([15, 7], [22, 11]) → 8.06

lineLength([0, 0], [0, 0]) → 0

lineLength([0, 0], [1, 1]) → 1.41

Notes
The order of the given numbers is X, Y.
This challen …
Create a function that takes an array of items, removes all duplicate items and returns a new array in the

Examples
removeDups([1, 0, 1, 0]) → [1, 0]

removeDups(["The", "big", "cat"]) → ["The", "big", "cat"]

removeDups(["John", "Taylor", "John"]) → ["John", "Taylo …
Closures are functions that remember their lexical environments. Lexical environments mean the enviro

```
function parent(x) {
  return function closure() {   // Closure is declared here.
    return x
  }
}
```

const remember = parent("remembers me")
// Seems like the variable x would be …
Write a function that takes an integer i and returns an integer with the integer backwards followed by th

To illustrate:

        123

We reverse 123 to get 321 and then add 123 to the end, resulting in 321123.

Examples
reverseAndNot(123) ➞ 321123

reverseAndNot(152) ➞ 251152

reverseAndNot(123456789) ➞ 98765432 …
Given a square matrix (i.e. same number of rows as columns), its trace is the sum of the entries in the ma

As an example, for:

[
  [1, 2, 3],
  [4, 5, 6],
  [7, 8, 9]
]

… the trace is 1 + 5 + 9 = 15.

Write a function that takes a square matrix a …
A factor chain is an array where each previous element is a factor of the next consecutive element. The f

[3, 6, 12, 36]

// 3 is a factor of 6
// 6 is a factor of 12
// 12 is a factor of 36

Create a function that determines whether or not an array is a factor chain.

Examples
factorChain([1, 2, …
Given a string of numbers separated by a comma and space, return the product of the numbers.

Examples
multiplyNums("2, 3") ➞ 6

multiplyNums("1, 2, 3, 4") ➞ 24

multiplyNums("54, 75, 453, 0") ➞ 0

multiplyNums("10, -2") ➞ -20

Notes
Bonus: Try to complete this challenge in one line!
Create a function to find NaN in an array of numbers. The return value should be the index where NaN is

Examples
findNaN([1, 2, NaN]) ➞ 2

findNaN([NaN, 1, 2, 3, 4]) ➞ 0

findNaN([0, 1, 2, 3, 4]) ➞ -1

Notes
NaN will occur in the input array only once.
You can think of character classes as characters with special meaning. They are recognized as special whe

Here are a list of the characters classes in JavaScript:

., \cX, \d, \D, \f, \n, \r, \s, \S, \t, \v, \w, \W, \0, \xhh, \uhhhh, \uhhhhh, [\b]

Write a regex that will return true i …
To train for an upcoming marathon, Johnny goes on one long-distance run each Saturday. He wants to tra

Create a function that takes in an array of miles run every Saturday and returns J …
Write a DECIMATOR* function which takes a string and decimates* it (i.e. it removes the last 1/10 of the

Always round up: if the string has 21 characters, 1/10 of the characters would be 2.1 characters, hence th

Examples
DECIMATOR("1234567890") ➞ …
Create a function that returns true if all parameters are truthy, and false otherwise.

Examples
allTruthy(true, true, true) ➞ true

allTruthy(true, false, true) ➞ false

allTruthy(5, 4, 3, 2, 1, 0) ➞ false

Notes
Falsy values include false, 0, "" (empty string), null, undefined, and NaN; everything else is truthy.
You will …
Create a function that takes a number and returns an array with the digits of the number in reverse orde

Examples
reverseArr(1485979) → [9, 7, 9, 5, 8, 4, 1]

reverseArr(623478) → [8, 7, 4, 3, 2, 6]

reverseArr(12345) → [5, 4, 3, 2, 1]

Notes
N/A
Given an integer array, transform that array into a mirror.

Examples
mirror([0, 2, 4, 6]) → [0, 2, 4, 6, 4, 2, 0]

mirror([1, 2, 3, 4, 5]) → [1, 2, 3, 4, 5, 4, 3, 2, 1]

mirror([3, 5, 6, 7, 8]) → [3, 5, 6, 7, 8, 7, 6, 5, 3]

Notes
Do not repeat the last item of the given array.
Given an array of numbers, write a function that returns an array that...

Has all duplicate elements removed.
Is sorted from least to greatest value.

Examples
uniqueSort([1, 2, 4, 3]) → [1, 2, 3, 4]

uniqueSort([1, 4, 4, 4, 4, 4, 3, 2, 1, 2]) → [1, 2, 3, 4]

uniqueSort([6, 7, 3, 2, 1]) → [1, 2, 3, 6, 7]

Notes
N/A
Create a function that takes a string, checks if it has the same number of x's and o's and returns either tru

Return a boolean value (true or false).
Return true if the amount of x's and o's are the same.
Return false if they aren't the same amount.
The string can contain any character.
When "x" and "o" are not i …
Create a function that returns the mean of all digits.

Examples
mean(42) → 3

mean(12345) → 3

mean(666) → 6

Notes
The mean of all digits is the sum of digits / how many digits there are (e.g. mean of digits in 512 is (5+1+2
The mean will always be a integer.
Write a function that does the following for the given values: add, subtract, divide and multiply. These ar
Create a function that takes an array of numbers between 1 and 10 (excluding one number) and returns t

Examples
missingNum([1, 2, 3, 4, 6, 7, 8, 9, 10]) → 5

missingNum([7, 2, 3, 6, 5, 9, 1, 4, 8]) → 10

missingNum([10, 5, 1, 2, 4, 6, 8, 3, 9]) → 7

Notes
The array of numbers will be unsorted (not in order …
Create a function that returns true if an asterisk * is inside a box.

Examples
inBox([
  "###",
  "#*#",
  "###"
]) → true

inBox([
  "####",
  "#* #",
  "# #",
  "####"
]) → true

inBox([
  "*####",
  "# #",
  "# #*",
  "####"
]) → false

inBox([
  "#####",
  "#   #",
  "#   #",
  "#   #",

"#####"
]) → false

Notes
The …
A snail goes up the stairs. Every step, he must go up the step, then go across to the next step. He wants t

Write a function that returns the distance the snail must travel to the top of the tower given the height a

Examples
totalDistance(0.2, …
Create a function that takes a string as an argument and converts the first character of each word to upp

Examples
makeTitle("This is a title") → "This Is A Title"

makeTitle("capitalize every word") → "Capitalize Every Word"

makeTitle("I Like Pizza") → "I Like Pizza"

makeTitle("P …
Create a function that takes three integer arguments (a, b, c) and returns the amount of integers which a

Examples
equal(3, 4, 3) → 2

equal(1, 1, 1) → 3

equal(3, 4, 1) → 0

Notes
Your function must return 0, 2 or 3.
Write a function that reverses all the words in a sentence that start with a particular letter.

Examples
specialReverse("word searches are super fun", "s")
→ "word sehcraes are repus fun"

specialReverse("first man to walk on the moon", "m")
→ "first nam to walk on the noom"

specialReverse("peter piper picked pickled peppe …
Create a function that takes a string as an argument and returns a coded (h4ck3r 5p34k) version of the st

Examples
hackerSpeak("javascript is cool") → "j4v45cr1pt 15 c00l"

hackerSpeak("programming is fun") → "pr0gr4mm1ng 15 fun"

hackerSpeak("become a coder") → "b3c0m3 4 c0d3r"

Notes
In order to work properly, the fu …
Create a function that takes an array of names and returns an array where only the first letter of each na

Examples
capMe(["mavis", "senaida", "letty"]) → ["Mavis", "Senaida", "Letty"]

capMe(["samuel", "MABELLE", "letitia", "meridith"]) → ["Samuel", "Mabelle", "Letitia", "Meridith"]

capMe(["Slyvia", "Kri …
Create a function that takes a single character as an argument and returns the char code of its lowercase

Examples
Given that:
  "A" char code is: 65
  "a" char code is: 97

counterpartCharCode("A") → 97

counterpartCharCode("a") → 65

Notes
The argument will always be a single character.
Not all …
You are in charge of the barbecue grill. A vegetarian skewer is a skewer that has only vegetables (-o). A n

For example, the grill below has 4 non-vegetarian skewers and 1 vegetarian skewer (the one in the middl

["--xo--x--ox--",
--xx--x--xx--,

Create a
function
that takes
an array of
numbers
and returns
the sum of
the two
lowest
positive
numbers.

Examples
sumTwoSm
allestNums(
[19, 5, 42,
2, 77]) → 7

sumTwoSm
allestNums(
[10,
343445353,
3453445,
345354535
3453]) →
3453455

// returns ["https://developer.mozilla.org/en-US/Web/JavaScript", "https …
Create a function that validates whether three given integers form a Pythagorean triplet. The sum of the

Examples
isTriplet(3, 4, 5) → true
// 3² + 4² = 25
// 5² = 25

isTriplet(13, 5, 12) → true
// 5² + 12² = 169
// 13² = 169
 …
Create a function that takes three values:

h hours
m minutes
s seconds

Return the value that's the longest duration.

Examples
longestTime(1, 59, 3598) ➞ 1

longestTime(2, 300, 15000) ➞ 300

longestTime(15, 955, 59400) ➞ 59400

Notes
No two durations will be the same.
Create a function that takes a string and returns the middle character(s). If the word's length is odd, retur

Examples
getMiddle("test") ➞ "es"

getMiddle("testing") ➞ "t"

getMiddle("middle") ➞ "dd"

getMiddle("A") ➞ "A"

Notes
All test …
Given a two digit number, return true if that number contains one even and one odd digit.

Examples
oneOddOneEven(12) ➞ true

oneOddOneEven(55) ➞ false

oneOddOneEven(22) ➞ false

Notes
N/A
Create a function that takes a number as its argument and returns an array of all its factors.

Examples
factorize(12) ➞ [1, 2, 3, 4, 6, 12]

factorize(4) ➞ [1, 2, 4]

factorize(17) ➞ [1, 17]

Notes
The input integer will be positive.
A factor is a number that evenly divides into another number without leaving a remainder. T …
Create a function that takes three arguments a, b, c and returns the sum of the numbers that are evenly

Examples
evenlyDivisible(1, 10, 20) → 0
// No number between 1 and 10 can be evenly divided by 20.

evenlyDivisible(1, 10, 2) → 30
// 2 + 4 + 6 + 8 + 10 = 30

evenlyDivisible(1, …
A number n is automorphic if n^2 ends in n.

For example: n=5, n^2=25

Create a function that takes a number and returns true if the number is automorphic, false if it isn't.

Examples
isAutomorphic(5) → true

isAutomorphic(8) → false

isAutomorphic(76) → true

Notes
N/A
Create a function that returns "even" if a number has an even number of factors and "odd" if a number h

Examples
factorGroup(33) → "even"

factorGroup(36) → "odd"

factorGroup(7) → "even"

Notes
You don't need to actually calculate the factors to solve this problem.
Think about why a number would …
Return the total number of arrays inside a given array.

Examples
numOfSubbarrays([[1, 2, 3]]) → 1

numOfSubbarrays([[1, 2, 3], [1, 2, 3], [1, 2, 3]]) → 3

numOfSubbarrays([[1, 2, 3], [1, 2, 3], [1, 2, 3], [1, 2, 3]]) → 4

numOfSubbarrays([1, 2, 3]) → 0

Notes
N/A
const obj = { first: "James", last: "Baker", alias: "JB" }

var { first = "John", last = "Doe", alias } = obj

console.log(nickname) // outputs nickname is not defined

There may be times where we would like the property name to be different from the object property nar
Create a function that takes two vectors as arrays and checks if the two vectors are orthogonal or not. Th

Examples
isOrthogonal([1, 2], [2, -1]) → true

isOrthogonal([3, -1], [7, 5]) → false

isOrthogonal([1, 2, 0], [2, -1, …
In this challenge, you have to establish if a given integer n is a Sastry number. If the number resulting fror

Given a positive integer n, implement a function that returns true if n is a Sastry number, or false if it's nc
Given an array of women and an array of men, either:
Return "sizes don't match" if the two arrays have different sizes.
If the sizes match, return a array of pairs, with the first woman paired with the first man, second woman

Examples
zipIt(["Elise", "Mary"], ["John", "Rick"])
 → [["Elise", …
Create a function that determines whether a shopping order is eligible for free shipping. An order is eligik

Examples
freeShipping({ "Shampoo": 5.99, "Rubber Ducks": 15.99 }) → false

freeShipping({ "Flatscreen TV": 399.99 }) → true

freeShipping({ "Mo …
An isogram is a word that has no duplicate letters. Create a function that takes a string and returns either

Examples
isIsogram("Algorism") → true

isIsogram("PasSword") → false
// Not case sensitive.

isIsogram("Consecutive") → false

Notes
Ignore letter case (sh …

Create a function that takes a number a and finds the missing exponent x so that a when raised to the po

Examples

solveForExp(4, 1024) ➞ 5

solveForExp(2, 1024) ➞ 10

solveForExp(9, 3486784401) ➞ 10

Notes
a is raised to the power of what in order to equal b?

Create a function that will remove the letters "a", "b" and "c" from the given string and return the modifi

Examples

removeABC("This might be a bit hard") ➞ "This might e it hrd"

removeABC("hello world!") ➞ null

removeABC("") ➞ null

Notes
If …

Create a function that takes a number as an argument and returns a string formatted to separate thousan

Examples

formatNum(1000) ➞ "1,000"

formatNum(100000) ➞ "100,000"

formatNum(20) ➞ "20"

Notes
You can expect a valid number for all test cases.

Callbacks are first-class functions. This means they have first-class characteristics, like being able to be pa

Here's a simple exa …

If two or more resistors are connected in parallel, the overall resistance of the circuit reduces. It is possib

1/RTotal = 1/R1 + 1/R2 + 1/R3 ...

Create a function that takes an array of resistance values, and calculates the total resistance o …

Create a function that takes a word and returns true if the word has two consecutive identical letters.

Examples

doubleLetters("loop") ➞ true

doubleLetters("yummy") ➞ true

doubleLetters("orange") ➞ false

doubleLetters("munchkin") ➞ false

Notes
N/A
Create a function that returns a capitalized version of the string passed. The first letter of each word in th

Examples
emphasise("hello world") ➞ "Hello World"

emphasise("GOOD MORNING") ➞ "Good Morning"

emphasise("99 red balloons!") ➞ "99 Red …
You have two arrays. One shows the names of the people names, while the other shows their occupation

Names	Jobs
Annie	Teacher
Steven	Engineer
Lisa	Doctor
Osman	Cashier

Example
const names = ["Dennis", "Vera", " …
Create a function that performs an even-odd transform to an array, n times. Each even-odd transform

Adds two (+2) to each odd integer.
Subtracts two (-2) from each even integer.

Examples
evenOddTransform([3, 4, 9], 3) ➞ [9, -2, 15]
// Since [3, 4, 9] => [5, 2, 11] => [7, 0, 13] => [9, -2, 15]

evenOddTransform([0, 0, …
There's a great war between the even and odd numbers. Many numbers already lost their lives in this wa

Create a function that takes an array of integers, sums the even and odd numbers separately, th …
Create a function that takes the volume of a cube and returns the length of the cube's main diagonal, rou

Examples
cubeDiagonal(8) ➞ 3.46

cubeDiagonal(343) ➞ 12.12

cubeDiagonal(1157.625) ➞ 18.19

Notes
N/A
Your job is to create a function, that takes 3 numbers: a, b, c and returns true if the last digit of a * b = th

Examples
lastDig(25, 21, 125) ➞ true
// The last digit of 25 is 5, the last digit of 21 is 1, and the last
// digit of 125 is 5, and the last digit o …
Usually when you sign up for an account to buy something, your credit card number, phone number or a

Your task is to create a function th …
ATM machines allow 4 or 6 digit PIN codes and PIN codes cannot contain anything but exactly 4 digits or

Examples
validatePIN("1234") ➞ true

validatePIN("12345") ➞ false

validatePIN("a234") ➞ …
Create a function which takes two strings (p1 and p2 ⎯— which represent player 1 and 2) as arguments a

Each argument will contain a single string: "Rock", "Paper", or "Scissors". Return the winner according to

Rock beats Scissors …
Create a function that accepts a string, checks if it's a valid email address and returns either true or false

The string must contain an @ character.
The string must contain a . character.
The @ must have at least one character in front of it.
  e.g. "e@edabit.com" is valid while "@edabit.com …
Create a function that takes a division equation d and checks if it will return a whole number without dec

Examples
validDivision("6/3") ➞ true

validDivision("30/25") ➞ false

validDivision("0/3") ➞ true

Notes
Return "invalid" if division by zero.
Create a function that calculates the missing value of 3 inputs using Ohm's law. The inputs are v, r or i (ak

Ohm's law:
V = R * I

Return the missing value rounded to two decimal places.

Examples
ohmsLaw(12, 220, "") → 0.05

ohmsLaw(230, "", 2) → 115

ohmsLaw("", 220, 0.02) → 4.4

ohmsL …
One cause for speeding is the desire to shorten the time spent traveling. In long distance trips, speeding

Create a function that calculates the amount of time saved were you traveling with an average speed tha
Write a function that takes a string of one or more words as an argument and returns the same string, bu

Examples
reverse("Reverse") → "esreveR"

reverse(" …
Write a function that creates an object with each (key, value) pair being the (lower case, upper case) vers

Examples
mapping(["p", "s"]) → { "p": "P", "s": "S" }

mapping(["a", "b", "c"]) → { "a": "A", "b": "B", "c": "C" }

mapping(["a", "v", "y", "z"]) → { "a": "A", "v": "V", "y": "Y", "z": " …
Write a function that, given a date (in the format MM/DD/YYYY), returns the day of the week as a string.

To illustrate, the day of the week for "12/07/2016" is "Wednesday".

Examples
getDay("1 …
Create a function that takes a number as its parameter and returns another function. The returned funct

Examples
const first = factory(15)
// returns a function first.

const …
Given an int, figure out how many ones, threes and nines you could fit into the number. You must create

Examples
let n1 = new OnesThreesNines(5)
n1.nines → 0

n1.ones → 5

n1.threes → 1

Notes.
This was originally a Python problem over here …
Parity bits are used as very simple checksum to ensure that binary data isn't corrupted during transit. Her

If a binary string has an odd number of 1's, the parity bit is a 1.
If a binary string has an even number of 1's, the parity bit is a 0.
The parity bit is appended to the end of the binary string.

C …
Create a function that transforms a string of upvote counts into an array of numbers. Each k represents a

Examples
transformUpvotes("6.8k 13.5k") → [6800, 13500]

transformUpvotes("5.5k 8.9k 32") → [5500, 8900, 32]

transformUpvotes("20.3k 3.8k 7.7k 992") → [20300, 3800, 7700, 992]

Notes
Return the upvotes as an …
Create a function that takes in a date and returns the correct century.

Examples
century(1756) → "18th century"

century(1555) → "16th century"

century(1000) → "10th century"

century(1001) → "11th century"

century(2005) → "21st century"

Notes
All dates will be between 1000 and 2010.
The 11th century is between 1001 and …
Create a function that takes two strings and returns either true or false depending on whether they're an

Examples
isAnagram("cristian", "Cristina") → true

isAnagram("Dave Barry", "Ray Adverb") → true

isAnagram("Nope", "Note") → false

Notes
Should be case insensitive.
The two given strings can be of differe …
Create a function that takes a string, removes all "special" characters (e.g. ., !, @, #, $, %, ^, &, \, *, (,)) an

Examples
removeSpecialCharacters("The quick brown fox!") → "The quick brown fox"

removeSpecialCha …
A man has n number of apples. If he eats a percentage p of the apples (if apples are available), his childr

Examples
getN …
Write a function that takes an array and returns a new array with unique positive (more than 0) numbers

Examples
uniqueArr([-5, 1, -7, -5, -2, 3, 3, -5, -1, -1]) → [1, 3]

uniqueArr([3, -3, -3, 5, 5, -6, -2, -4, -1, 3]) → [3, 5]

uniqueArr([10, 6, -12, 13, 5, 5, 13, 6, 5]) → [10, 6, 13, 5]

Notes
Return the elements in the …
Create a function that takes a string road and returns the car that's in first place. The road will be made o

Examples
firstPlace("====b===O===e===U=A==") → "A"

firstPlace("e==B=Fe") → "e"

firstPlace("proeNeoOJGnfl") → "l"

Notes
Return "No car available" if t …
Create a function that takes a number num and returns its double factorial.

Examples
doubleFactorial(0) → 1

doubleFactorial(2) → 2

doubleFactorial(9) → 945

doubleFactorial(14) → 645120

Notes

Assume all input values are greater than or equal to -1.

Try to solve it with recursion.

Given two strings comprised of + and -, return a new string which shows how the two strings interact in t

When positives and positives interact, they remain positive.

When negatives and negatives interact, they remain negative.

But when negatives and positives interact, they become neutral, and are shown as …

Create a function that takes a string and replaces the vowels with another character.

a = 1
e = 2
i = 3
o = 4
u = 5

Examples

replaceVowel("karachi") → "k1r1ch3"

replaceVowel("chembur") → "ch2mb5r"

replaceVowel("khandbari") → "kh1ndb1r3"

Notes

The input will always be in lowercase.

Given a simple math expression as a string, neatly format it as an equation.

Examples

formatMath("3 + 4") → "3 + 4 = 7"

formatMath("3 - 2") → "3 - 2 = 1"

formatMath("4 x 5") → "4 x 5 = 20"

formatMath("6 / 3") → "6 / 3 = 2"

Notes

You will need to deal with addition, subtraction, multiplication and division.

Division will …

Create a function that keeps only strings with repeating identical characters (in other words, it has a set s

Examples

identicalFilter(["aaaaaa", "bc", "d", "eeee", "xyz"])
→ ["aaaaaa", "d", "eeee"]

identicalFilter(["88", "999", "22", "545", "133"])
→ ["88", "999", "22"]

identicalFilter(["xxxxo", "oxo", "xox", " …

POV: You are in an exam and time has just run out. While the teacher's back is turned, you hastily take th

For this challenge, it takes 0.5 seconds to write a character (not including spaces). Given the full sentence

Write a function that returns the position of the second occurrence of "zip" in a string, or -1 if it does not

Examples
findZip("all zip files are zipped") → 18

findZip("all zip files are compressed") → - …

Parity bits are used as a very simple checksum to ensure that binary data isn't corrupted during transit. H

If a binary string has an odd number of 1's, the parity bit is a 1.
If a binary string has an even number of 1's, the parity bit is a 0.
The parity bit is appended to the end of the binary string.
 …

Suppose an image can be represented as a 2D array of 0s and 1s. Write a function to reverse an image. R

Examples
reverseImage([
  [1, 0, 0],
  [0, 1, 0],
  [0, 0, 1]
]) → [
  [0, 1, 1],
  [1, 0, 1],
  [1, 1, 0]
]

reverseImage([
  [1, 1, 1],
  [0, 0, 0]
]) → [
  [0, 0, 0],
  [1, 1, 1]
]
 …

Given a number, return a string of the word "Boom", which varies in the following ways:

The string should include n number of "o"s, unless n is below 2 (in that case, return "boom").
If n is evenly divisible by 2, add an exclamation mark to the end.
If n is evenly divisible by 5, return the string in ALL CAPS.
If n is evenl …

Given a number between 1-26, return what letter is at that position in the alphabet. Return "invalid" if th

Examples
letterAtPosition(1) → "a"

letterAtPosition(26.0) ➞ "z"

letterAtPosition(0) ➞ "invalid"

letterAtPosition(4.5) ➞ "invalid"

Notes
Return a lowerca …
Try to imagine a world in which you might have to stay home for 14 days at any given time. Do you have

Although the number of squares per roll of TP varies significantly, we'll assume each roll has 500 sheets,

Create a function that will receive a …
Write a method that returns array of all the numbers from 1 to an integer argument. But for multiples of

Example
fizzBuzz(10) ➞ [1, 2, "Fizz", 4, "Buzz", "Fizz", 7, 8, "Fiz …
Create a function that takes three numbers — the width and height of a rectangle, and the radius of a cir

Examples
rectangleInCircle(8, 6, 5) ➞ true

rectangleInCircle(5, 9, 5) ➞ false

rectangleInCircle(4, 7, 4) ➞ false

Notes
N/A
In this challenge you will receive an input of the form:

[[[[[[[[[[[[]]]]]]]]]]]]

In other words, an array containing an array containing an array containing... an array containing nothing

Your goal is to measure the depth of this array, where [] has a depth 1, [[]] has depth of 2, [[[]]] has depth

Examples
measur …
Create a function which takes in an array of numbers and a number to find. Return the sum of every inde

Examples
sumFoundIndexes([0, 3, 3, 0, 0, 3], 3) ➞ 8
// The number 3 was found at indexes 1, 2 and 5.
// 8 = 1 + 2 + 5

sumFoundIndexes([1, 2, 3, 4, 5, 6], 3) ➞ 2

sumFoundInd …
Create a function that will remove any repeated character(s) in a word passed to the function. Not just co

Examples
unrepeated("hello") → "helo"

unrepeated("aaaaa") → "a"

unrepeated("WWE!!!") → "WE!"

unrepeated("call 911") → "cal 91"

Notes
No more than …
Create a function that returns the sum of all even elements in a 2D matrix.

Examples
sumOfEvens([
  [1, 0, 2],
  [5, 5, 7],
  [9, 4, 3]
]) → 6

// 2 + 4 = 6

sumOfEvens([
  [1, 1],
  [1, 1]
]) → 0

sumOfEvens([
  [42, 9],
  [16, 8]
]) → 66

sumOfEvens([
  [],
  [],
  []
]) → 0

Notes
Submatrices will be of equal length.
Ret …
Return true if the sum of ASCII values of the first string is same as the sum of ASCII values of the second s

Examples
sameAscii("a", "a") → true

sameAscii("AA", "B@") → true

sameAscii("EdAbIt", "EDABIT") → false

Notes
If you need some help with ASCII codes, check the Recources tab for an im …
This is a reverse coding challenge. Normally you're given explicit directions with how to create a function

Your task is to create a function that, when fed the inputs below, produces the sample outputs shown.

Examples
my …
You are given two arrays that each contain data that represents the min and max weather temperatures

The records array contains the all-time record low/high temperatures for that day of the week.

[[record low, record high], ...]

The current week array contains the daily low/high temperatures for …
Quantifiers indicate numbers of characters or expressions to match. By default quantifiers like * and ar

…

You are to read each part of the date into its own integer type variable. The year should be a 4 digit number. You can assume the user enters a correct date formatted d m yyyy (no error checking required).

Determine whether the entered date is a

{fraction} rounded to {n} decimal places is {answer}

Examples
fracRound("1/3", 5) ➞ "1/3 rounded to 5 decimal places is 0.33333"

fracRound("2/8", 4) ➞ "2/8 rounded to 4 decimal places …
The "Reverser" takes a string as input and returns that string in reverse order, with the opposite case.

Examples
reverse("Hello World") ➞ "DLROw OLLEh"

reverse("ReVeRsE") ➞ "eSrEvEr"

reverse("Radar") ➞ "RADAr"

Notes
There will be no punctuation in any of the test cases.
Given a list of directions to spin, "left" or "right", return an integer of how many full 360° rotations were

Examples
spinAround(["right", "right", "right", "right", "left", "right"]) ➞ 1
You spun right 4 times (90 * 4 = 360)
You spun left o …
No description.
Guess the code from test cases.

Examples
runningAthlete(["run", "jump", "run", "jump", "run"], "||") ➞ "||"

runningAthlete(["run", "jump", "run", "run", "run"], "||") ➞ "|/"

runningAthlete(["jump", "jump", "jump", "jump", "jump"], "||_") ➞ "x|x|x"

runningAthlete(["run", "run", "run", "run", "run"], "||") …
Your spouse is not concerned with the loss of material possessions but rather with his/her favorite pet. Is

Given an object of the stolen items and a string in lowercase representing the name of the pet (e.g. "ram

Rambo is gone... if the name is on the list.
Rambo is here! if the name is not on t …
Create a function that returns only strings with unique characters.

Examples
filterUnique(["abb", "abc", "abcdb", "aea", "bbb"]) ➞ ["abc"]
// "b" occurs in "abb" more than once, "b" occurs in "abcdb" more than once, etc.

filterUnique(["88", "999", "989", "9988", "9898"]) ➞ []

filterUnique(["ABCDE", "DDEB", "BED", "CCA", " …
This challenge has five miniature exercises to help practice proficiency in string slicing. Check the example

Examples
const s = "abcdefghijklmnopqrstuvwxyz"

challenge1(s) ➞ "abcde"
// First 5 characters of the string.

challenge2(s) ➞ "vwxyz"
// Last 5 …
Create a sorting function which sorts numbers not by numerical order, but by number length! This means

Examples
numberLengthSort([1, 54, 1, 2, 463, 2]) ➞ [1, 1, 2, 2, 54, 463]

numberLengthSort([999, 421, 22, 990, 32]) ➞ [22, 32, …

Syncopation means an emphasis on a weak beat of a bar of music; most commonly, beats 2 and 4 (and al

You will be given a string representing beats, where hashtags # represent emphasized beats. Create a fun
A number is said to be Harshad if it's exactly divisible by the sum of its digits. Create a function that deter

Examples
isHarshad(75) ➞ false
// 7 + 5 = 12
// 75 is not exactly divisible by 12

isHarshad(171) ➞ true
// 1 + 7 + 1 = 9
// 9 exactly divides 171

isHarshad(481) ➞ true
 …
Create a function that takes a string and returns dashes on the left and right side of every vowel (a e i o u

Examples
dashed("Edabit") ➞ "-E-d-a-b-i-t"

dashed("Carpe Diem") ➞ "C-a-rp-e- D-i--e-m"

dashed("Fight for your right to party!") ➞ "F-i-ght f-o-r y-o--u-r r-i-ght t-o- p-a-rty!"

Notes
A string can contain upperc …
Given two integers a and b, return how many times a can be halved while still being greater than b.

Examples
halveCount(1324, 98) ➞ 3
// (1324 -> 662 -> 331 -> 165.5)

halveCount(624, 8) ➞ 6
// (624 -> 312 -> 156 -> 78 -> 39 -> 19.5 -> 9.75)

halveCount(1000, 3) ➞ 8
// (1000 -> 500 -> 250 -> 125 -> 62.5 -> 31.25 -> 15.625 - …
Given two lines, determine whether or not they are parallel.

Lines are represented by an array [a, b, c], which corresponds to the line ax+by=c.

Examples
linesAreParallel([1, 2, 3], [1, 2, 4]) ➞ true
// x+2y=3 and x+2y=4 are parallel.

linesAreParallel([2, 4, 1], [4, 2, 1]) ➞ false

// 2x+4y=1 and 4x+2y=1 are not parallel.

 …

Transcribe the given DNA strand into corresponding mRNA - a type of RNA, that will be formed from DN/

Examples
dnaToRna("ATTAGCGCGATATACGCGTAC") ➞ "UAAUCGCGCUAUAUGCGCAUG"

dnaToRna("CGATATA") ➞ "GCUAUAU"

dnaToRna("GTCAT …

Given a string worm create a function that takes the length of the worm and converts it into millimeters.

Examples
wormLength("----------") ➞ "100 mm."

wormLength("") ➞ "invalid"

wormLength("----_---") ➞ "invalid"

Notes
Return "invalid" if an empty string is given or if the string has ch …

Create a function that takes an array of integers and returns the sum of all the integers that have an even

For example:
[2, 3, 4, 5] ➞ 30
(2 + 4) * 5 ➞ 30

[1, 4, 5, 6, 7, 2, 3] ➞ 48
(1 + 5 + 7 + 3) * 3 ➞ 48

Examples
evenLast([]) ➞ 0

evenLast([1, 3, 3, 1, 10]) ➞ 140

ev …

Create a function to determine if the sum of all the individual even digits are greater than the sum of all t

If the sum of odd numbers is greater than the sum of even numbers, return "Odd is greater than Even".
If the sum of even numbers is greater than the odd numbers, retur …

Write a function that removes all capital letters from a sentence except the first letter, puts quotation ma

Examples
shhh("HI THERE!") ➞ '"Hi there!", whispered Edabit.'

shhh("tHaT'S Pretty awesOme") ➞ '"That's pretty awesome", whispered Edabit.'

shhh("") …
Two sisters are eating chocolate, whose pieces are represented as subarrays of [l x w].

Write a function that returns true if the total area of chocolate is the same for each sister.

To illustrate:
testFairness([[4, 3], [2, 4], [1, 2]],
[[6, 2], [4, 2], [1, 1], [1, 1]])
➞ true

// Agatha's pieces: [4, 3], [2, 4], [1, 2]
// …
Create a function which returns the word in the string, but with all the fog letters removed. However, if t

Examples
clearFog("sky") ➞ "It's a clear day!"

clearFog("fogfogFFfooooftogffreogffesGgfOogfog") ➞ "trees"

clearFog("fogFogFogffoObirdsanffodthebffoeffoesGGGfO …
Mubashir has started his journey from home. Given a string of directions (N=North, W=West, S=South, E

Examples
backToHome("EEWE") ➞ false

backToHome("NENESSWW") ➞ true

backToHome …
Suppose that you invest $10,000 for 10 years at an interest rate of 6% compounded monthly. What will b

Create a function that accepts the principal p, the term in years t, the interest rate r, and the number of c
Given an array of user objects.

let names = []

let users = [
 { name: "John", email: "john@example.com" },
 { name: "Jason", email: "jason@example.com" },
 { name: "Jeremy", email: "jeremy@example.com" },
 { name: "Jacob", email: "jacob@example.com" }
]

for(/* add code inside these parenthesis only */) {
    names.p …
Create a function that accepts a string and returns true if it's in the format of a proper phone number an

This is what a valid phone number looks like:

(123) 456-7890

Examples
isValidPhoneNumber("(123) 456-7890 …
Write a function that, given the start startNum and end endNum values, return an array containing all th

Examples
inclusiveArray(1, 5) → [1, 2, 3, 4, 5]

inclusiveArray(2, 8) → [2, 3, 4, 5, 6, 7, 8]

inclusiveArray(10, 20) → [10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20]

 …
Wurst is the best. Create a function that takes a string and replaces every mention of any type of sausage

German Wursts	Convert to Wurst
Bratwurs …
Write a function that returns all the elements in an array that are strictly greater than their adjacent left

Examples
miniPeaks([4, 5, 2, 1, 4, 9, 7, 2]) → [5, 9]
// 5 has neighbours 4 and 2, both are less than 5.

miniPeaks([1, 2, 1, 1, 3, 2, 5, 4, 4]) → [2, 3, 5]

miniPeaks([1, 2, 3, 4, 5, 6]) → []

 …
A half life is the amount of time for half of a radioactive substance to decay.
After 1 half life, 50% of a substance will be left.
After 2 half lives, 25% of a substance will be left.
After 3 half lives, 12.5% of a substance will be left, etc...

Create a function which calculates the remaining mass and the number of years …
In electronics, a digital-to-analog converter (DAC, D/A, or D-to-A) is a system that converts a binary repre
Given an array of prices prices and a "supposed" total t, return true if there is a hidden fee added to the t

Examples
hasHiddenFee(["$2", "$4", "$1", "$8"], "$15") → false

hasHiddenFee(["$1", "$2", "$3"], "$6") → false

hasHiddenFee(["$1"], "$ …
Array A is contained inside array B if each element in A also exists in B.

The number of times a number is present doesn't matter. In other words, if we transformed both arrays i

A = [3, 3, 9, 9, 9, 5]
B = [1, 3, 9, 5, 8, 44, 44]

A_Set = [3, 9, 5]
B_Set = [1, 3, 9, 5, 8, 44]

// ASet is …
Your job is to make a "Twitter link" regular expression rx. This RegEx searches a tweet to find the @handl

The function is already written in the Tests tab, so you only need to provide the RegEx variable in the Coc
Only return the @ and # handles.

Examples
tweet("Visit us at @edabit") → "@edabit"

t …
John is playing a dice game. The rules are as follows.

Roll two dice.
Add the numbers on the dice together.
Add the total to your overall score.
Repeat this for three rounds.

But if you roll DOUBLES, your score is instantly wiped to 0 and your game ends immediately!

Create a function which takes in a matrix as input, and …
Your task is to create a fence worth $1 million. You are given the price of the material (per character), me

Create a function which constructs this pricey pricey fence, using the letter "H" to build.

constructFence("$50,000") → "HHHHHHHHHHHHHHH …
Return the smallest number of steps it takes to convert a string entirely into uppercase or entirely into lo

Examples
stepsToConvert("abC") → 1
// "abC" converted to "abc" in 1 step

stepsT …
Cryptocurrencies often have a lot of decimals. For example, the popular cryptocurrency Ethereum has 18

When dealing with money, precision is important, you don't want to lose money because a number is los
Create a function which validates whether a 3 character string is a vowel sandwich. In order to have a val
The first and last characters must be a consonant.
The character in the middle must be a vowel.

Examples
isVowelSandwich("cat") → true

isVowelSandwich("ear") → …
Write a function that returns true if an integer can be expressed as a power of base value 2 and false oth

Examples
powerOfTwo(32) → true

powerOfTwo(1) → true

powerOfTwo(-7) → false

powerOfTwo(18) → false

Notes
N/A
Create a function that takes a chess board square's coordinate and return its color.

Alternative Text

Examples
chessBoard("a1") → "black"

chessBoard("e5") → "black"

chessBoard("d1") → "white"

Notes
N/A
Write a function that finds the largest number in an array nums that is also even. If there is no even numl

Examples
largestEven([3, 7, 2, 1, 7, 9, 10, 13]) → 10

largestEven([1, 3, 5, 7]) → -1

largestEven([0, 19, 18973623]) → 0

Notes
Consider using the modulo % operator.
Create a function that returns the total number of steps it takes to transform each element to the maxim

Examples
incrementToTop([3, 4, 5]) → 3
// Maximal element in the array is 5.

// To transform 3 to 5 requires 2 steps: 3 -> 4, 4 -> 5.
// To trans …
Write a class called Name and create the following attributes given a first name and last name (as fname

An attribute called fullname which returns the first and last names.
An attribute called initials which returns the first letters of the first and last name. Put a . between the tw

Remember to allo …
In this challenge, you have to find the distance between two points placed on a Cartesian plane. Knowing

Two points on a Cartesian plane

Given two object literals a and b being the two points coordinates (x and …
Create a function that compares two words based on the sum of their ASCII codes and returns the word

Examples
asciiSort(["hey", "man"]) → "man"
// ["h", "e", "y"] → sum([104, 101, 121]) → 326
// ["m", "a", "n"] → sum([109, 97, 110]) → 316

asciiSort(["majorly", "then"]) → "then"

asciiSort(["vict …
Imagine a messaging device with only one button. For the letter A, you press the button one time, for E,

Write a function that takes a string (the message) and returns the total number of times the button is pre

Examples
howManyTimes("abde") → 12

how …
Given an array of numbers, representing the height of a mountain in certain intervals, return whether thi

A mountain can be considered scalable if each number is within 5 units of the next number in either dire

Examples
isScalable([1, 2, 4, 6, 7, 8]) → true

isScalable([40, 45, 50, 45, 47, 52] …
Create a function that counts the number of times a particular letter shows up in the word search.

Examples
letterCounter([
  ["D", "E", "Y", "H", "A", "D"],
  ["C", "B", "Z", "Y", "J", "K"],
  ["D", "B", "C", "A", "M", "N"],
  ["F", "G", "G", "R", "S", "R"],

["V", "X", "H", "A", "S", "S"]
], "D") → 3

// "D" shows up 3 t …
Create a function which takes in a number n as input and returns all numbers up to and including n joined

Examples
joinDigits(4) → "1-2-3-4"

joinDigits(11) → "1-2-3-4-5-6-7-8-9-1-0-1-1"

joinDigits(15) → "1-2-3-4-5-6-7-8-9-1-0-1-1-1-2-1-3-1-4 …
Write a function that takes an array and a number as arguments. Add the number to the end of the array

Examples
nextInLine([5, 6, 7, 8, 9], 1) → [6, 7, 8, 9, 1]

nextInLine([7, 6, 3, 23, 17], 10) → [6, 3, 23, 17, 10]

nextInLine(…
Given an array of arrays, return a new array of arrays containing every element, except for the outer elem

Examples
peelLayerOff([
  ["a", "b", "c", "d"],
  ["e", "f", "g", "h"],
  ["i", "j", "k", "l"],
  ["m", "n", "o", "p"]
]) → [
  ["f", "g"],
  ["j", "k"]
]

peelLayerOff([
  [1, 2, 3, 4, 5],
  [6, 7, 8, 9, 10],
  […
You are given an array of integers having both negative and positive values, except for one integer which

Examples
lonelyInteger([1, -1, 2, -2, 3]) → 3
// 3 has no matching negative appearance.

lonelyInteger([-3, 1, 2, 3, -1, -4, -2]) → -4
// -4 has n …
Write a function that takes three arguments (x, y, z) and returns an array containing x subarrays (e.g. [[],

x Number of subarrays contained within the main array.
y Number of items contained within each subarray.
z Item contained within each subarray.

Examples
matrix(3, 2, 3) …
Create a function that always returns true for every item in a given array. However, if an element is the v

Examples
flickSwitch(["edabit", "flick", "eda", "bit"]) ➞ [true, false, false, false]

flickSwitch(["flick", 11037, 3.14, 53]) ➞ [false, false, false, …
In cricket, an over consists of six deliveries a bowler bowls from one end. Create a function that takes the

Examples
totalOvers(2400) ➞ [400]

totalOvers(164) ➞ [27.2]
// 27 overs and 2 balls were bowled by the bowler.

totalOvers(945 …
Fruit salads are served best when the fruits are sliced and diced into small chunks!

For this challenge, slice each fruit in half and sort the chunks alphabetically. This recipe tastes best when

Worked Example
fruitSalad(["apple", "pear", "grapes"]) ➞ "apargrapepesple"

// C …
Given two strings, repeatedly cycle through all of the letters in the first string until it is the same length a

Examples
stringCycling("abc", "hello") ➞ "abcab"

stringCycling("programming", "edabit") ➞ "progra"

stringCycling("the world in me evolves in hers", "i love Tesh, so much so") ➞ "the world in …
Javascript has a String prototype default in the language which contains properties and methods such as

consonants(word) which returns the number of consonants in a word when called.
vowels(word) which returns the number of vowels in a word …
Create a function that takes a number as input and returns true if the sum of its digits has the same parit

Examples
parityAnalysis(243) ➞ true
// 243 is odd and so is 9 (2 + 4 + 3)

parityAnalysis(12) ➝ false
// 12 is even but 3 is odd (1 + 2)

parityAnalysis(3) ➝ true
// 3 i …
Imagine you have three numbers: a, b, and c. c is equal to either a or b, but you don't know which one. Y
Create a function that returns the value of x (the "unknown" in the equation). Each equation will be form

x + 6 = 12

Examples
solve("x + 43 = 50") ➝ 7

solve("x - 9 = 10") ➝ 19

solve("x + 300 = 100") ➝ -200

Notes
x will always be in the same place (you will not find an equation like 6 + x = 12).
Every e …
In music, notes can be written out in multiple ways (especially for notes on the black keys). Although the:

C# = Db, D# = Eb, F# = Gb, G# = Ab, A# = Bb

Given a musical note, create a function that returns its enharmonic equivalent. The examples be …
Create a function that takes in two arrays and returns true if the second array follows the first array by o

Examples
simonSays([1, 2], [5, 1]) ➝ true

simonSays([1, 2], [5, 5]) ➝ false

simonSays([1, …
Write a function, .vreplace() that extends the String prototype by replacing all vowels in a string with a sp

Examples
apples and bananas.vreplace("u") ➝ "upplus und bununus"

cheese casserole.vreplace("o") ➝ "chooso cossorolo"

stuffed jalapeno poppers.vreplace("e") ➝ "steffed jelepene peppers"

Notes
A …
Your stereotypical titleCase() function in JavaScript might capitalises the first letter of every word in a giv

The goal of this challenge, however, is to create a reverseTitle() function, which achieves the complete o

Create a function that converts a string of letters to their respective number in the alphabet.

A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | ... |
--- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | ...
Additional spaces have been added to a sentence. Return the correct sentence by removing them. All wo

Examples
correctSpacing("The film   starts   at   midnight. ")
➞ "The film starts at midnight."

correctSpac ...
Given an object of people and their ages, return how old the people would be after n years have passed.

Examples
afterNYears({
  "Joel" : 32,
  "Fred" : 44,
  "Reginald" : 65,
  "Susan" : 33,
  "Julian" : 13
}, 1) ➞ {
  "Joel" : 33,
  "Fred" : 45,
  "Reginald" : 66,
  "Susan" : 34,
  "Julian" : ...
Create a function that takes a string and returns a new string with its first and last characters swapped, e:

If the length of the string is less than two, return "Incompatible.".
If the argument is not a string, return "Incompatible.".
If the first and last characters are the same, return "Two's ...
Create a function that takes an array of numbers arr and a number n. Return true if the sum of any two e

Examples
checkSum([10, 12, 4, 7, 9, 11], 16) ➞ true

checkSum([4, 5, 6, 7, 8, 9], 13) ➞ true

checkSum([0, 98, 76, 23], 174) ➞ true

checkSum([0, 9, 7, 23, 19 ...
Your friend is trying to write a function to accomplish the following transformations:

let x = [3, 3, 3, 3, 3, 3, 3]

// Each time x is called, the following results are shown:

change(x, 0) // [3, 3, 3, 3, 3, 3, 3]
change(x, 1) // [3, 2, 2, 2, 2, 2, 3]
change(x, 2) // [3, 2, 1, 1, 1, 2, 3]
change(x, 3) // [3, 2, 1, 0, …
Write a function that moves all elements of one type to the end of the array.

Examples
moveToEnd([1, 3, 2, 4, 4, 1], 1) ➞ [3, 2, 4, 4, 1, 1]
// Move all the 1s to the end of the array.

moveToEnd([7, 8, 9, 1, 2, 3, 4], 9) ➞ [7, 8, 1, 2, 3, 4, 9]

moveToEnd(["a", "a", "a", "b"], "a") ➞ ["b", "a", "a", "a"]

Notes
Keep the or …
Groups and ranges indicate groups and ranges of expression characters. Character Sets match any charac

/[abcd]/ === /[a-d]/

If the hyphen appears as the first or last character then it is considered a literal hyphen.

non-profit.match(/ …
The iterated square root of a number is the number of times the square root function must be applied to

Given an integer, return its iterated square root. Return "invalid" if it is negative.

Examples
iSqrt(1) ➞ 0

iSqrt(2) ➞ 1

iSqrt(7) ➞ 2

iSqrt(27) ➞ 3

iSqrt(256) ➞ 4

iSqrt(-1) ➞ "inv …
This is more informational than a challenge. You can actually switch 2 variables with the XOR operation ^

The return value is the decimal representation of the new binary …
Remove enemies from the array of people, even if the enemy shows up twice.

Examples
removeEnemies(["Fred"], []) ➞ ["Fred"]

removeEnemies(["Adam", "Emmy", "Tanya", "Emmy"], ["Emmy"]) → ["Adam", "Tanya"]

removeEnemies(["John", "Emily", "Steve", "Sam"], ["Sam", "John"]) → ["Emily", "Steve"]

Notes
All names to be removed wil …
You have an array of item codes with the following format: "letters"

Create a function that splits these strings into their alphabetic and numeric parts.

Examples
splitCode("TEWA8392") → ["TEWA", 8392]

splitCode("MMU778") → ["MMU", 778]

splitCode("SRPE5532") → ["SRPE", 5532]

Notes
N/A
Write a function that takes an array of numbers and returns an array with two elements:

The first element should be the sum of all even numbers in the array.
The second element should be the sum of all odd numbers in the array.

Example
sumOddAndEven([1, 2, 3, 4, 5, 6]) → [12, 9]
// 2 + 4 + 6 = 12 and 1 + 3 + 5 = 9

sumOddA …
An instructor has given her student an assignment to calculate the sum of the digits of a positive integer

Examples
sumDigit(111) → 3
// 1 + 1 + 1 = 3

sumDigit(222) → 6
// 2 + 2 + 2 = 6

sumDigit(333) …
Write a function that returns true if the binary string can be rearranged to form a string of alternating 0s

Examples
canAlternate("0001111") → true
// Can make: "1010101"

canAlternate("01001") → true
// Can make: "01010"

canAlternate("010001") ➞ false

canAlternate("1111") ➞ false

Notes
No substring of the outpu …
Create a function that takes a sequence of either strings or numbers, removes the surrounding duplicate

Examples
uniqueInOrder("AAAABBBCCDAABBB") ➞ ["A", "B", "C", "D", "A", "B"]

uniqueInOrder(…
Create a function that takes a string str and performs simple encoding as per the following method:

Replace all single occurrence characters with [
Replace all characters with two or more occurrences with]

Return the final string after modification.

Examples
simpleEncoder("Mubashir") ➞ "[[[[[[[["
// '[' for each characte …
Mubashir was reading about Doubleton Numbers on Wikipedia.

A natural number is a "Doubleton Number", if it contains exactly two distinct digits. For example, 23, 35,

Create a function which takes a number n and finds the next doubleton number.

Examples
doubleto …
Create a function to find only the root value of x in any quadratic equation $ax^2 + bx + c$. The function wi

a as the coefficient of x^2
b as the coefficient of x
c as the constant term

Examples
quadraticEquation(1, 2, -3) ➞ 1

quadraticEquation(2, -7, 3) ➞ 3

quadraticEquation(1, -12, -28) ➞ 14

No …
Create a function that takes the month and year (as integers) and returns the number of days in that mor

Examples
days(2, 2018) ➞ 28

days(4, 654) ➞ 30

days(2, 200) ➞ 28

days(2, 1000) ➞ 28

Notes
Don't forget about leap years!
Create a function that takes two number strings and returns their sum as a string.

Examples
add("111", "111") ➞ "222"

add("10", "80") ➞ "90"

add("", "20") ➞ "Invalid Operation"

Notes
If any input is "", undefined or null, return "Invalid Operation".
Write a function that returns the longest sequence of consecutive zeroes in a binary string.

Examples
longestZero("01100001011000") ➞ "0000"

longestZero("100100100") ➞ "00"

longestZero("11111") ➞ ""

Notes
If no zeroes exist in the input, return an empty string.
It takes 21 seconds to wash your hands and help prevent the spread of COVID-19.

Create a function that takes the number of times a person washes their hands per day N and the number

Examples
wash …
You will be implementing a basic case of the map-reduce pattern in programming. Use the built in JavaSc

Given a vector stored as an array of numbers, find the magnitude of the vector (this is similar to the func
Create a function that takes a string and censors words over four characters with *.

Examples
censor("The code is fourty") ➞ "The code is **"

censor("Two plus three is five") → "Two plus * is five"

censor("aaaa aaaaa 1234 12345") → "aaaa * 1234 *"

Notes
Don't censor words with exactly four characters.
If all words have f ...
There has been a masterdata issue which affected the prices of the products. Check if each product has a

The return value should be a Boolean.

Examples
hasValidPrice({ "product": "Milk", price: ...
Dividing by 0 is a huge mistake and should be avoided at all costs.

Create a function that when given a math expression as a string, return True if at any point, the expressic

Examples
catchZeroDivision("2 / 0") → true

catchZeroDivision("4 / (2 + 3 - 5)") → true

catchZeroDivision("2 * 5 - 10") → ...
Given the month and year as numbers, return whether that month contains a Friday 13th.

Examples
hasFriday13(3, 2020) → true

hasFriday13(10, 2017) → true

hasFriday13(1, 1985) → false

Notes
January will be given as 1, February as 2, etc ...
A museum wants to get rid of some exhibitions. Katya, the interior architect, comes up with a plan to ren
Andy, Ben and Charlotte are playing a board game. The three of them decided to come up with a new sco

For instance, if ABBACCCCAC is written when the g ...
Create a function that takes two numbers as arguments and returns the Greatest Common Divisor (GCD)

Examples
gcd(3, 5) → 1

gcd(14, 28) → 14

gcd(4, 18) → 2

Notes

The GCD is the highest number that can divide both arguments without a remainder.
Create a function which adds spaces before every capital in a word. Uncapitalize the whole string afterwa

Examples
capSpace("helloWorld") → "hello world"

capSpace("iLoveMyTeapot") → "i love my teapot"

capSpace("stayIndoors") → "stay indoors"

Notes
The first letter will stay uncapitalized.
Create a function that determines if there is an upward trend.

Examples
upwardTrend([1, 2, 3, 4]) → true

upwardTrend([1, 2, 6, 5, 7, 8]) → false

upwardTrend([1, 2, 3, "4"]) → "Strings not permitted!"

upwardTrend([1, 2, 3, 6, 7]) → true

Notes
If there is a string element in the array, return "Strings not permitted!".
The …
Create a function which takes in a sentence str and a string of characters chars and return the sentence b

Examples
stripSentence("the quick brown fox jumps over the lazy dog", "aeiou") → "th qck brwn fx jmps vr th lzy d

stripSentence("the hissing snakes sinisterly slither acr …
A quadratic equation a x² + b x + c = 0 has either 0, 1, or 2 distinct solutions for real values of x. Given a, b

Examples
solutions(1, 0, -1) → 2
// x² - 1 = 0 has two solutions (x = 1 and x = -1).

solutions(1, 0, 0) → 1
// x² = 0 has one solution (x = 0).
 …
Create a function that takes a single string as argument and returns an ordered array containing the indic

Examples
indexOfCaps("eDaBiT") → [1, 3, 5]

indexOfCaps("eQuINoX") → [1, 3, 4, 6]

indexOfCaps("determine") → []

indexOfCaps("STRIKE") → [0, 1, 2, 3, 4, 5]

indexOfCaps("sUn") → …
You have a pack of 5 randomly numbered cards, which can range from 0-9. You can win if you can produc

Examples
winRound([2, 5, 2, 6, 9], [3, 7, 3, 1, 2]) → true
// Your cards can make the number 96
// Your opponent can m …
A number n is a Harshad (also called Niven) number if it is divisible by the sum of its digits. For example, 6

Write a function to determine whether the given number is a Harshad number.

Examples
isHarshad(209) → true

isHarshad(41) → false

isHarshad(12255) → true

N …
Create a function that takes an input (e.g. "5 + 4") and returns true if it's a mathematical expression or fa

Examples
mathExpr("4 + 5") → true

mathExpr("4*6") → true

mathExpr("4*no") → false

Notes
Should only work with the following operations: +, -, *, /, %
You don't need to test for floats.
int1 and int2 wi …
Given an array of numbers and a value n, write a function that returns the probability of choosing a numb

Examples
probability([5, 1, 8, 9], 6) → 50.0

probability([7, 4, 17, 14, 12, 3], 16) → 16.7 …
Write a function that takes two arrays and adds the first element in the first array with the first element i

Examples

pu …
You are given three inputs: a string, one letter, and a second letter.

Write a function that returns true if every instance of the first letter occurs before every instance of the s

Examples
firstBeforeSecond("a rabbit jumps joyfully", "a", "j") → true
// every instance of "a" occurs before every instance of " …
Given a string including a bunch of characters and numbers, return the sum of all the numbers in the strir

Examples
grabNumberSum("aeiou250abc10") → 260

grabNumberSum("one1two2twenty20") → 23

grabNumberSum("900uwu50uw …
A palindrome is a word, phrase, number or other sequence of characters which reads the same backward

Write a function that takes a string and determines whether it's a palindrome or not. The function should

Examples
isPalindrome("Neuquen") → true

 …
Write a function that returns the first n vowels of a string.

Examples
firstNVowels("sharpening skills", 3) → "aei"

firstNVowels("major league", 5) → "aoeau"

firstNVowels("hostess", 5) → "invalid"

Notes
Return "invalid" if the n exceeds the number of vowels in a string.
Vowels are: a, e, i, o, u
Given an array of integers, replace every number with the mean of all numbers.

Examples
flattenCurve([1, 2, 3, 4, 5]) → [3, 3, 3, 3, 3]

flattenCurve([0, 0, 0, 2, 7, 3]) → [2, 2, 2, 2, 2, 2]

flattenCurve([4]) → [4]

flattenCurve([]) → []

Notes
Round averages to 1 decimal point.
Return an empty array if given an empty arra …
Create a function that checks to see if two object arguments are equal to one another. Return true if the

Example #1
// The first object parameter.

```
{
 name: "Benny",
 phone: "3325558745",
 email: "benny@edabit.com"
}
```

// The second object parameter.

```
{
 name: "Jason",
 phone …
```

Create a function that capitalizes the last letter of every word.

Examples
capLast("hello") ➞ "hellO"

capLast("My Name Is Edabit") ➞ "MY NamE IS EdabiT"

capLast("HELp THe LASt LETTERs CAPITALISe") ➞ "HELP THE LAST LETTERS CAPITALISE"

Notes
There won't be any cases of punctuation in the tests.
Create a function that, given a string str, finds a letter that has a single occurrence. Return the letter in u

Examples
singleOccurrence("EFFEAABbc") ➞ "C"

singleOccurrence("AAAAVNNNNSS") ➞ "V"

singleOccurrence("S") ➞ "S"

Notes
The function will not be case sen …
Create a function that takes a string's characters as ASCII and returns each character's hexadecimal value

Examples
toHex("hello world") ➞ "68 65 6c 6c 6f 20 77 6f 72 6c 64"

toHex("Big Boi") ➞ "42 69 67 20 42 6f 69"

toHex("Marty Poppinson") ➞ "4d 61 72 74 79 20 50 6f 70 70 69 6e 73 6f 6e"

Notes
Each byte mus …
Create a function that changes all the elements in an array as follows:

Add 1 to all even integers, nothing to odd integers.
Concatenates "!" to all strings and make the first letter of the word a capital letter.
Changes all boolean values to its opposite.

Examples
changeTypes(["a", 12, true]) ➞ ["A!", 13, false]

changeTy …
A company asks a small-scale manufacturer to produce packaging in which they can ship their cooking oil

Create a f …
Create a function that takes a number n and checks if each digit is divisible by the digit on its left. Return

Examples
divisibleByLeft(73312) ➞ [false, false, true, false, true]
// no element left to 7 = false
// 3/7 = false
// 3/3 = true
// 1/3 = false
// 2/1 = true

divi …
A train has a maximum capacity of n passengers overall, which means each carriage's capacity will share a

Create a function which returns the index of the first carriage which holds 50% or less of its maximum cap

Worked Example
findASea …
Create a function that takes an integer and outputs an n x n square solely consisting of the integer n.

Examples
squarePatch(3) ➞ [
  [3, 3, 3],
  [3, 3, 3],
  [3, 3, 3]
]

squarePatch(5) ➞ [
  [5, 5, 5, 5, 5],
  [5, 5, 5, 5, 5],

```
  [5, 5, 5, 5, 5],
  [5, 5, 5, 5, 5],
  [5, 5, 5, 5, 5]
]

squarePatch(1) ➞ [
  [1]
]
```

squarePa …
Create a function that takes a string of four numbers. These numbers represent two separate points on a

The order of coordinates in the string corresponds as follows:

x1,y1,x2,y2

Calculate the distance between x and y.

Examples
shortestDistance("1, …
Write a function that changes every letter to the next letter:

a becomes "b"
b becomes "c"
d becomes "e"
and so on ...

Examples
move("hello") ➞ "ifmmp"

move("bye") ➞ "czf"

move("welcome") ➞ "xfmdpnf"

Notes
There will be no z's in the tests.
Create a function that determines whether a string is a valid hex code.

A hex code must begin with a pound key # and is exactly 6 characters in length. Each character must be a

Examples
isValidHexCode("#CD5C5C") ➞ t …
A word nest is created by taking a starting word, and generating a new string by placing the word inside i

Nesting 3 times with the word "incredible":

start = incredible

first = incre|incredible|dible
second = increin|incredible|credibledible
third = increinincr|incredible|ediblecred …
Create a function that takes a single word string and does the following:

Concatenates inator to the end if the word ends with a consonant otherwise, concatenate -inator instead

Adds the word length of the original word to the end, supplied with '000'.

The examples should make this clear.

Examples
inatorInator("Shrink") …
In BlackJack, cards are counted with -1, 0, 1 values:
2, 3, 4, 5, 6 are counted as +1
7, 8, 9 are counted as 0
10, J, Q, K, A are counted as -1

Create a function that counts the number and returns it from the array of cards provided.

Examples
count([5, 9, 10, 3, "J", "A", 4, 8, 5]) ➞ 1

count(["A", "A", "K", "Q", "Q", "J"]) …
When creating variables, the variable name must always start with a letter and cannot contain spaces, th

Create a function which returns true if a given variable name is valid, otherwise return false.

Examples
variableValid("result") ➞ true

variableValid(…
A game of table tennis almost always sounds like Ping! followed by Pong! Therefore, you know that Play

Given an array of Ping!, create a function that inserts Pong! in between each element. Also:
If win equals true, end the list w …
Mubashir needs your help in a simple task.

Given an array of numbers arr:

Create an object for each given number.
The object key will be the number converted to a string.
The value will be the corresponding character code converted to a string (check ASCII table).
Return an array of the resulting objects.

Examples
numObj(…

Create a function which takes a sentence and returns its abbreviation. Get all of the words over or equal

Examples
abbreviate("do it yourself") → "Y"

abbreviate("do it yourself", 2) → "DIY"
// "do" and "it" a ...
Write a function that takes a string, breaks it up and returns it with vowels first, consonants second. For a

Examples
split("abcde") → "aebcd"

split("Hello!") → "eoHll!"

split("What's the time?") → "aeieWht's th tm?"

Notes
Vo ...
Consider the following operation on an arbitrary positive integer:
If n is even -> n / 2
If n is odd -> n * 3 + 1

Create a function to repeatedly evaluate these operations, until reaching 1. Return the number of steps i

See the following example, using 10 as the input, with 6 steps:

10 is even - 10 / 2 = 5
5 is odd ...
Create a function that takes a string and returns a new string with each new character accumulating by +

Examples
accum("abcd") → "A-Bb-Ccc-Dddd"

accum("RqaEzty") → "R-Qq-Aaa-Eeee-Zzzzz-Tttttt-Yyyyyyy"

accum("cwAt") → "C-Ww-Aaa-Tttt"

Notes
Capitalize the first letter of each set.
All test ...
Create a function that returns true if a number is prime, and false otherwise. A prime number is any posi

The first ten prime numbers are:

2, 3, 5, 7, 11, 13, 17, 19, 23, 29

Examples

isPrime(31) → true

isPrime(18) → false

isPrime(11) → true

Notes
…
Create a function that takes a positive integer number (one of base2, base8, or base16) and converts the

Examples
integerToString(10 , 2) → "1010"
// Base = 2

integerToString(1642 , 8) → "3152"
// Base = 8

integerToString(212 , 16) → "d4"
// Base = 16

Note …
Create a function that takes a word and extends all vowels by a number num.

Examples
extendVowels("Hello", 5) → "Heeeeeelloooooo"

extendVowels("Edabit", 3) → "EEEEdaaaabiiiit"

extendVowels("Extend", 0) → "Extend"

Notes
Return "invalid" if num is not a positive integer or 0.
A man named Thomas Malthus described what is now called a Malthusian Catastrophe. According to him

Your job is to find out when that will occur. For this challenge, assume 1 popu …
Create a function that takes two strings, a and b. Return the number of times the two strings contain the

For example, if a = "bboiizz" and b = "bbuiiz", your function should return 3, since the "bb", "ii", and "iz" a
Create a function that takes an array of integers as an argument and returns a unique number from that

Examples
findSingleNumber([2, 2, 2, 3, 4, 4, 4]) → 3

findSingleNumber([2]) → 2

findSingleNumber([]) → null

findSingleNumber([7, 13, …

Given a number, return the difference between the maximum and minimum numbers that can be formed

Examples

rearrangedDifference(972882) ➞ 760833
// 988722 - 227889 = 760833

rearrangedDifference(3320707) ➞ 7709823
// 7733200 - 23377 = 7709823

rearrangedDifference(90010) ➞ 90981
// 91000 - 19 …

Create a function that converts dates from one of five string formats:

January 9, 2019 (MM D, YYYY)
Jan 9, 2019 (MM D, YYYY)
01/09/2019 (MM/DD/YYYY)
01-09-2019 (MM-DD-YYYY)
01.09.2019 (MM.DD.YYYY)

The return value will be an array formatted like: [MM, DD, YYYY], where MM, DD, and YYYY are all intege

Create a function that checks if the box is completely filled with the asterisk symbol *.

Examples
completelyFilled([
 "#####",
 "#*#",
 "#*#",
 "#*#",
 "#####"
]) ➞ true

completelyFilled([
 "#####",
 "#* *#",
 "#*#",
 "#*#",
 "#####"
]) ➞ false

completelyFilled([
 "###",
 "#*#",
 "###"
]) ➞ true

completelyF …

In this challenge, you have to convert a weight weighed on a planet of the Solar System to the correspon

To convert the weight, you have to divide it by the gravitational force of the planet on which is weighed a
Write a function that returns the greatest common divisor (GCD) of two integers.

Examples
gcd(32, 8) → 8

gcd(8, 12) → 4

gcd(17, 13) → 1

Notes
Both values will be positive.
The GCD is the largest factor that divides both numbers.
Create a function that returns true if the given circular areas are intersecting, otherwise return false. The

Radius of the circle.
Center position on the x-axis.
Center position on the y-axis.

Examples
isCircleCollision([10, 0, 0], [10, 10, 10]) …
A number is narcissistic when the sum of its digits, with each digit raised to the power of digits quantity, i

153 → 3 digits → $1^3 + 5^3 + 3^3$ = 1 + 125 + 27 = 153 → Narcissistic
84 → 2 digits → $8^2 + 4^2$ = 64 + 16 = 80 → Not narcissistic

Given a positive integer n, implement a function that return …
Write a function that recursively determines if a string is a palindrome.

Examples
isPalindrome("abcba") → true

isPalindrome("b") → true

isPalindrome("") → true

isPalindrome("ad") → false

Notes
An empty string counts as a palindrome.
Create a function that takes a string of name and checks how much good is the given name. A preloaded

const scores = {"A": 100, "B": 14, "C": 9, "D": 28, "E": 145, "F": 12, "G": 3,
H: 10, "I": 200, "J": 100, …
Create a function that counts the number of towers.

Examples
count_towers([
 ["   ##   "],
 ["## ##   ##"],
 ["## ## ## ##"],
 ["## ## ## ##"]
]) → 4

count_towers([
 ["   ##"],
 ["##   ## ## ##"],
 ["##   ## ## ## ##"],
 ["## ## ## ## …

Create a function that takes an array of superheroes / superheroines names and returns an array of only

Examples
superheroes(["Batman", "Superman", "Spider-man", "Hulk", "Wolverine", "Wonder-Woman"])
→ ["Batman", "Spider-man", "Superman"]

superheroes …

Your spouse tells you that one of the items on the list wasn't stolen, it is in your castle in Transilvania. Giv

Examples
removeEntry({ piano: 300, tv: 100, skate: 50 }, "skate") → { piano: 300, tv: 100 }

removeEntry({ mirror: 50 …

A number is considered slidey if for every digit in the number, the next digit from that has an absolute dif

Examples
isSlidey(123454321) → true

isSlidey(54345) → true

isSlidey(987654321) → true

isSlidey(1123) → false

isSlidey(1357) → false

Notes
A number cannot slide properly i …

In mathematics, interval is the difference between the largest number and the smallest number in an arr

To illustrate:

A = (3, 5, 7, 23, 11, 42, 80)

Interval of A = 80 - 3 = 77

Create a function that takes an array and returns ":)" if the interval of the array is equal to any other elen

Exa …
Given an array of integers, find the pair of adjacent elements that have the largest product and return th;

Examples
adjacentProduct([3, 6, -2, -5, 7, 3]) → 21

adjacentProduct([5, 6, -4, 2, 3, 2, -23]) → 30

adjacentProduct([0, -1, 1, 24, 1, -4, 8, 10]) → 80

Notes
Each array has at least two elements.
Imagine a school that kids attend for 6 years. In each year, there are five groups started, marked with the

Write a function that returns the groups in the school by year (as a string), sepa …
Create a function that takes an array of integers and returns true if every number is prime. Otherwise, re

Examples
allPrime([7, 5, 2, 4, 6]) → false

allPrime([2, 3, 5, 7, 13, 17, 19, 23, 29]) → true

allPrime([1, 5, 3]) → false

Notes
1 is not a prime number.
Given a string containing mostly spaces and one non-space character, return whether the character is po

Examples
isCentral(" # ") → true

isCentral(" 2   ") → false

isCentral("@") → true

Notes
Only one character …
Mubashir is getting old but he wants to celebrate his 20th or 21st birthday only. It is possible with some l

For example, if his current age is 22, that's exactly 20 - in base 11. Similarly, 65 is exactly 21 - in base 32 ;

Create a …

Create a function which simulates the game "rock, paper, scissors". The function takes the input of both

Player 1 wins
Player 2 wins
TIE (if both inputs are the same)

The rules of …
Create a function that takes an array as an argument and returns a new nested array for each element in

Examples
multiply([4 …
Given an array with an odd number of elements, return whether the scale will tip "left" or "right" based

Examples
scaleTip([0, 0, "I", 1, 1]) ➝ "right"
// 0 4 so it will tip left

scaleTip([5, 5, …
You will be given an array of numbers which represent your character's altitude above sea level at regula
Positive numbers represent height above the water.
0 is sea level.
Negative numbers represent depth below the water's surface.

Create a function which returns whether your character survives their unsupervis …
Fibonacci numbers are created in the following way:

F(0) = 0
F(1) = 1
...
F(n) = F(n-2) + F(n-1)

Write a function that calculates the nth Fibonacci number.

Examples
fib(0) ➝ 0

fib(1) ➝ 1

fib(2) ➝ 1

fib(8) ➝ 21

Notes
N/A
Write a function that finds the longest word in a sentence and returns it. If two or more words are the bi

Examples

longestWord("Hello darkness my old friend" …

Indira first year computer science student is taking an intro to RegEx class. Her professor gives her the as

Create a function that takes a string and returns the first character of every word if the length of the wor

Examples

stmid("Alexa have to paid") → "ehtp"

// "e" is the middle character of "Alexa"

// "h" is the first character of "have"

stmid("Th3 0n3 4nd …

Write a regular expression that ensures the word "end" is inside of another word (e.g. "bending"). Non-w

Examples

The end of the story. → false

Endings are pointless. → false

Let's send! → false

We viewed the rendering at the end. → false

bending the

…

A Collatz
sequence is
generated
like this.
Start with a
positive
number. If
it's even,
halve it. If
it's odd,
multiply it
by three
and add
one. Repeat
the process
with the
resulting
number.
The Collatz
Conjecture
is that
every
sequence
eventually
reaches 1
// 17.2 and 5.

countNumber([[[[[2, 14]]], 2, 3, 4]]) → 5
// 2, 14, 2, 3 and 4.

countNumber([["balkot"]]) → 0

Notes
Input may be array of numbers, strings and empty …
Create a function that returns the data type of a given variable. These are the eight data types this challe

Array
Object
String
Number
Boolean
Null
Undefined
Date

Examples
dataType([1, 2, 3, 4]) → "array"

dataType({key: "value"}) → "object"

dataType("This is an example string.") → "string"

dataT …
function shirtSize({size = "big"}) {
  return size
}

shirtSize() // error: Cannot destructure property "size" of "undefined" or "null"

The preceding code produces an error because no object was passed to the function. Fix the function to
An array is given. Return a new array having the sum of all its elements except itself. For more clarity, che

Clarification
[1, 2, 3, 4] = for first element => sum will be 2+3+4 = [9]
[1, 2, 3, 4] = for second element => sum will be 1+3+4 = [9, 8]
[1, 2, 3, 4] = for third element => sum will be 1+2+4 = …
Create a function that accepts an array of two strings and checks if all of the letters in the second string a

Examples
letterCheck(["trances", "nectar"]) → true

letterCheck(["compadres", "DRAPES"]) → true

letterCheck(["parses", "parsecs"]) → false

Notes
Function should not be case sensitiv …
Create a function that returns the array of numbers from a given range. But for multiples of three, return

Examples
edaBit(0, 10) ➞ ["EdaBit", 1, 2, "Eda", 4, "Bit", "Eda", 7, 8, …
Create a function that takes in a two-dimensional array and returns the number of sub-arrays with only i

Examples
countIdentical([
  [1],
  [2],
  [3],
  [4]
]) ➞ 4

// Single-item arrays still count as having identical elements.

countIdentical([
  [1, 2],
  [2, 3],
  [3, 4],
  [4, 4]
]) ➞ 1

countIdentic …
You have an array of strings, each consisting of a book title and an author's name.

To illustrate:
[
  [" Death of a Salesman - Arthur Miller   "],
  [" Macbeth - William Shakespeare   "],
  ["   A Separate Peace - John Knowles   "],
  [" Lord of the Flies - William Golding"],
  ["A Tale of Two Cities - Charles Dic …
Given two arrays of two people's different interests, return whether both people have at least two things

Examples
isPotentialFriend(
  ["sports", "music", "chess"],
  ["coding", "music", "netflix", "chess"]
) ➞ true

isPotentialFriend(
  ["cyclin …
Create a function that outputs the results of a flashcard. A flashcard is an array of three elements: a num

There are 4 operators: + (addition), - (subtraction), x (multiplication), and / (division). If the flashcard disp
Let's assume for the purposes of this challenge that for every layer of fabric you wear when it's cold outs

Given n number of layers and a given temperature, return the temperature inside of all those warm fuzz
Write a function that returns all orders that cost strictly more than k.

Examples
expensiveOrders({ "a": 3000, "b": 200, "c": 1050 }, 1000)
→ { "a": 3000, "c": 1050 }

expensiveOrders({ "Gucci Fur": 24600, "Teak Dining Table": 3200, "Louis Vutton Bag": 5550, "Dolce Gaba
→ { "Gucci Fur": 24600 }

exp …
You call your spouse to inform his/her most precious item is gone! Given an object of stolen items, return

Examples
mostExpensiveItem({
  piano: 2000,
}) → "piano"

mostExpensiveItem({
  tv: 30,
  skate: 20,
}) → "tv"

mostExpensiveItem({
  tv: 30,
  skate: 20,
  stereo: 50,
}) → "stereo …
An employee working at a very bizarre company earns one penny on their first day. However, for every d

Exampl …
Write a function that inverts the keys and values of an object.

Examples
invert({ "z": "q", "w": "f" })
→ { "q": "z", "f": "w" }

invert({ "a": 1, "b": 2, "c": 3 })
→ { 1: "a", 2: "b", 3: "c" }

invert({ "zebra": "koala", "horse": "camel" })
→ { "koala": "zebra", "camel": "horse" }

Notes
N/A
At school, we used to play with our calculators and send each other secret messages. The trick was to en

Given a number, create a function that converts it into a word by turning the integer 180 degrees around

Examples
turnCalc(707) ➞ "LOL"

turn …
Mubashir is trying to figure out the corresponding quadratic formula for the following quadratic sequenc

N	Result
1	90
2	240
3	450
4	720
5	1050

If you can figure this out, then help him by creating a function that takes a number n and returns the nth

Ex …
As you complete questions on Edabit, you gain experience points depending on the difficulty of the quest

Difficulty	Experience Points
Very Easy	5XP
Easy	10XP
Medium	20XP
Hard	40XP
Very Hard	80XP

Given an object of how many questions a person has compl …
You prepare a list to send to the insurance company. As you finish, you notice you misformatted it. Given

Examples
convertToNumber({ piano: "200" }) ➞ { piano: 200 }

convertToNumber({ piano: "200", tv: "300" }) ➞ { piano: 200, tv: 300 }

convert …
In this challenge you will be given an array containing equations, with each equation written as a string.

["1+1=2", "2+2=3", "5*5=10", "3/3=1"]

If you do the math, you'll see that the equations "1+1=2" and "3/3=1" are actually true while "2+2=3" and

Write a function which, …
Create a function based on the input and output. Look at the examples, there is a pattern.

Examples
secret("p.one.two.three") → ``

secret("p.one") → ``

secret("p.four.five") → ``

Notes
Input is a string.
Create a function that takes an array of numbers and returns an array where each number is the sum of i

Examples
cumulativeSum([1, 2, 3]) → [1, 3, 6]

cumulativeSum([1, -2, 3]) → [1, -1, 2]

cumulativeSum([3, 3, -2, 408, 3, 3]) → [3, 6, 4, 412, 415, 418]

Notes
Return an empty array …
Create a function that returns the indices of all occurrences of an item in the array.

Examples
getIndices(["a", "a", "b", "a", "b", "a"], "a") → [0, 1, 3, 5]

getIndices([1, 5, 5, 2, 7], 7) → [4]

getIndices([1, 5, 5, 2, 7], 5) → [1, 2]

getIndices([1, 5, 5, 2, 7], 8) → []

Notes
If an element does not exist in an array, r …
A floor plan is arranged as follows:
Four rooms, which all lead into the hallway.
It's impossible to move between rooms without first going into the hallway.

Room

Create a function which validates whether the path between rooms is possible. The hallway will be given

Examples
possiblePath([1, "H", 2, "H" …

Create a function where given the number n to count down from, and some words str, return a countdov

Put a full stop after each number and * capitalize* and add an exclamation mark to the word. See the exa

Examples
countdown(10, "Blast …
Create a function that takes an old price oldPrice, a new price newPrice, and returns what percent the pr

Examples
percentageChanged("$800", "$600") → "25% decrease"

percentageChanged("$1000", "$840") → "16% decrease"

percentageChanged("$100", " …
A fruit juice company tags their fruit juices by concatenating the first three letters of the words in a flavor

Create a function that creates the product IDs for the variety of fruit juices.

Examples
getDrinkID("apple", "500ml") → "APP500"

getDrinkID("pineapple", "45ml") → "PIN45"

getDrinkID("pa …
Stalactites hang from the ceiling of a cave while stalagmites grow from the floor.

Create a function that determines whether the input represents "stalactites" or "stalagmites". If it repres

Examples
minera …
Given a number n, return an array containing several arrays. Each array increments in size, from range 1 t

Examples
pyramidArrays(1) → [[1]]

pyramidArrays(3) → [[1], [2, 2], [3, 3, 3]]

pyramidArrays(5) → [[1], [2, 2], [3, 3, 3], [4, 4, 4, 4], [5, 5, 5, 5, 5]]

Notes
n wi …
Given two unique integer arrays a and b, and an integer target value v, create a function to determine wh

Return true if there is a pair that adds up to the target value and …
Write a function that recursively returns the number of vowels in a string.

Examples

countVowels("apple") → 2

countVowels("cheesecake") → 5

countVowels("bbb") → 0

countVowels("") → 0

Notes
All letters will be in lower case.
Vowels are: a, e, i, o, u.
Create a function which replaces all repeated letters in a word with single letters.

Examples
removeRepeats("aaabbbccc") → "abc"

removeRepeats("bookkeeper") → "bokeper"

removeRepeats("nananana") → "nananana"

Notes
N/A
Given an array of ingredients i and a string flavour f as input, create a function that returns the array but

Examples
makeSandwich(["tuna", "ham", "tomato"], "ham") → ["tuna", "bread", "ham", "bread", "tomato"]

makeSandwich(["cheese", "lettuce"], "cheese") → ["bread" …
Write a function that takes a string and calculates the number of letters and digits within it. Return the re

Examples
countAll("Hello World") → { "LETTERS": 10, "DIGITS": 0 }

countAll("H3ll0 Wor1d") → { "LETTERS": 7, "DIGITS": 3 }

countAll("149990") → { "LETTERS": 0, "DIGITS": 6 }

Notes
Tests contain …
Write a function that takes an array of two numbers and determines if the sum of the digits in each numl

Examples
isEqual([105, 42]) → true
1 + 0 + 5 = 6
4 + 2 = 6

isEqual([21, 35]) → false

isEqual([0, 0]) → true

Notes
N/A
Create a function that takes an array of numbers and return its median. If the input array is even length, i

Examples
median([2, 5, 6, 2, 6, 3, 4]) → 4

median([21.4323, 432.54, 432.3, 542.4567]) → 432.4

median([-23, -43, -29, -53, -67]) → -43

Notes
Input ca …
In music, cadences act as punctuation in musical phrases, and help to mark the end of phrases. Cadences

V followed by I is a Perfect Cadence
IV followed by I is a Plagal Cadence
V followed by Any chord other than I is an Interrupted Cadence
An …
In a board game, a player may pick up a card with several left or right facing arrows, with the number of i

Given an array of the arrows contained on a player's cards, return a singular string of arr …
October 22nd is CAPS LOCK DAY. Apart from that day, every sentence should be lowercase, so write a fur

Create a function that takes a string. If the string is all uppercase characters, convert it to lowercase and i

Examples
normalize("CAPS LOCK DAY IS OVER") → …
Create a function which returns the type of triangle, given the side lengths. Return the following values if

No sides equal: "scalene"
Two sides equal: "isosceles"
All sides equal: "equilateral"
Less or more than 3 sides given: "not a triangle"

Examples
getTriangleType([2, 6, 5]) → "scalene"

getTr …
Write a function that takes a string, and returns a new string with any duplicate consecutive letters remo

Examples
unstretch("ppoeemm") → "poem"

unstretch("wiiiinnnnd") → "wind"

unstretch("ttiiitlllleeee") → "title"

unstretch("cccccaaaarrrbbonnnnn") → "carbon"

Notes
Final strings won't include words with double lette …
The Fibonacci Sequence is the sequence of numbers (Fibonacci Numbers) whose sum is the two precedin

Examples

On generating a Fibonacci number where input i …
What's the probability of someone making a certain amount of free throws in a row given their free thro

Examples
freeThrows("75%", 5) → "24%"

freeThrows("25%", 3) → "2%"

freeThrows("90%", 30) → "4%"
 …
Create a function that takes an array containing nested arrays as an argument. Each subarray has 2 elem

Examples
sumFractions([[18, 13], [4, 5]]) → 2

sumFractions([[36, 4], …
Create a function that takes a string and replaces each letter with its appropriate position in the alphabet

Examples
alphabetIndex("Wow, does that work?")
→ "23 15 23 4 15 5 19 20 8 1 20 23 15 18 11"

alphabetIndex("The river stole the gods.")
→ "20 8 5 18 9 22 5 18 19 20 15 12 5 20 …
Create a function that takes in an array of intervals and returns how many intervals overlap with a given

An interval overlaps a particular point if the point exists inside the interval, or on the interval's boundary.
Write three functions:

AND
OR
XOR

These functions should evaluate an array of true and false values, starting from the leftmost element and

Examples
and([true, true, false, true]) → false
// and([true, true, false, true]) => and([true, false, true]) => and([false, true]) => false

or([true, true, fals ...
Given a character and a value between 0 and 100, return a string that represents a simple progress bar.

The value represents a percentage.
The bar should begin and end with "|"
Repeat the character to fill the bar, with each character equivalent to 10%
Use spaces to pad the bar to a length of 10 characters.
A single space c ...
Create a function that takes a string str and modifies the given string as per the below examples:

Examples
mumbling("MubAshIr") → "M-Uu-Bbb-Aaaa-Sssss-Hhhhhh-Iiiiiii-Rrrrrrrr"

mumbling("maTT") → "M-Aa-Ttt-Tttt"

mumbling("EdaBit") → "E-Dd-Aaa-Bbbb-Iiiii-Tttttt"

Notes
N/A
Create a function that sums the total number of digits between two numbers, inclusive. For example, bet

// 19, 20, 21, 22
(1 + 9) + (2 + 0) + (2 + 1) + (2 + 2) = 19

Examples
sumDigits(7, 8) → 15

sumDigits(17, 20) → 29

sumDigits(10, 12) → 6

Notes
N/A
You can think of character classes as characters with special meaning. They are recognized as special whe

Here are a list of the characters classes in JavaScript:

., \cX, \d, \D, \f, \n, \r, \s, \S, \t, \v, \w, \W, \0, \xhh, \uhhhh, \uhhhhh, [\b]

Given the below string, write a regex ...
Create a function that takes an array of numbers and returns the product of the largest and second large

Examples

product([2, 3, 1, -1, 2]) ➝ 6
// 2 * 3 = 6

product([-2, -2, -1, -1]) ➝ 2
// -2 * - 1 = 2

product([8, 8, 8]) ➝ 64
// 8 * 8 = 64

product([2, 8, 8, 8]) ➝ 16
// 2 * 8 = 16

Notes
Numbers in …
Create a function that counts the number of adverbs in a sentence. An adverb is a word that ends with ly

Examples
countAdverbs("She ran hurriedly towards the stadium.") ➝ 1

countAdverbs("She ate the lasagna heartily and noisily.") ➝ 2

countAdverbs("He hates potatoes.") ➝ 0

countAdverbs("He was happily, crazily, foolishl …
Create a function that returns the amount of duplicate characters in a string. It will be case sensitive and

Examples
duplicates("Hello World!") ➝ 3
// "o" = 2, "l" = 3.
// "o" is duplicated 1 extra time and "l" is duplicated 2 extra times.
// Hence 1 + 2 = 3

dupli …
Write a function to return the city from each of these vacation spots.

Examples
grabCity("[Last Day!] Beer Festival [Munich]") ➝ "Munich"

grabCity("Cheese Factory Tour [Portland]") ➝ "Portland"

grabCity("50% Off! 5-Day Trip to Onsen [Kyoto]") ➝ "Kyoto"

Notes
There may be additional brackets, but the city will always be i …
Count the amount of coordinates on a two-dimensional grid that are inside a given circle. The function ha

Examples

pointsInCircle([
  { x: 0, y: 0 },
  { x: 1, y: 1 },
  { x: 0, y: 5 },
  { x: 10, y: 10 }
], 0, 0, 5) ➞ 2

Notes
Only …
You can think of character classes as characters with special meaning. They are recognized as special whe

Here are a list of the characters classes in JavaScript:

., \cX, \d, \D, \f, \n, \r, \s, \S, \t, \v, \w, \W, \0, \xhh, \uhhhh, \uhhhhh, [\b]

You probably know already know the st …
The digit distance between two numbers is the total value of the difference between each pair of digits.

To illustrate:
digitDistance(234, 489) ➞ 12
// Since |2 - 4| + |3 - 8| + |4 - 9| = 2 + 5 + 5

Create a function that returns the digit distance between two integers.

Examples
digitDistance(121, 599) ➞ 19

digitDistance(…
Write a function that, given the start and end values, returns an array containing all the numbers inclusiv

Examples
reversibleInclusiveList(1, 5) ➞ [1, 2, 3, 4, 5]

reversibleInclusiveList(2, 8) ➞ [2, 3, 4, 5, 6, 7, 8]

reversibleInclusiveList(10, 20) ➞[10, 11, 12, 13, 14, 15, 16, 17, 18 …
Mubashir needs your help to make a simple equation. Create a function which takes three numbers: a, b

Return any one of the possible answers to pass the tests. If there is no equation between a,b and c then i

Examples
simple …
Create a function that ends the first word of a phrase with "ed", essentially verbifying a noun.

Examples
verbify("cheese burger") ➞ "cheesed burger"

verbify("salt water") → "salted water"

verbify("orange juice") → "oranged juice"

verbify("shredded cheese") → "shredded cheese"

Notes
Change only the first word.
Note that …
Create a function that returns the number of characters shared between two words.

Examples
sharedLetters("apple", "meaty") → 2
// Since "ea" is shared between "apple" and "meaty".

sharedLetters("fan", "forsook") → 1

sharedLetters("spout", "shout") → 4

Notes
N/A
Captain Obvious is asked to implement a simple function that given two decimal numbers A and B return

Easy one! he thinks, but soon he discovers that his function fails over fifty percent of given test cases! He
 …
Check if the given string consists of only letters and spaces and if every letter is in lower case.

Examples
lettersOnly("JAVACRIPT") → false

lettersOnly("javascript") → true

lettersOnly("12321313") → false

lettersOnly("i have spaces") → true

lettersOnly("i have numbers(1-10)") → false

lettersOnly("") → false

Notes
Em …
The median of a group of numbers is the middle number when the group is sorted. If the size of the grou

Examples
median([1, 2, 4, 5, 6, 8, 8, 8, 10] …
Given two arrays, merge them to one array and sort the new array in the same order as the first array.

Examples
mergeSort([1, 2, 3], [5, 4, 6]) ➞ [1, 2, 3, 4, 5, 6]

mergeSort([8, 6, 4, 2], [-2, -6, 0, -4]) ➞ [8, 6, 4, 2, 0, -2, -4, -6]

mergeSort([120, 180, 200], [190, 175, 130]) ➞ [120, 130, 175, 180, 190, 200]

Notes
You …
An ultrarelativistic particle is one whose speed v is very close to the speed of light c (or equivalently, one
Create a function that takes a string containing integers as well as other characters and return the sum of

Examples
negativeSum("-12 13%14&-11") ➞ -23
// -12 + -11 = -23

negativeSum("22 13%14&-11-22 13 12") ➞ -33
// -11 + -22 = -33

Notes
There is at least one negative integer.
It's the police again. They need more signatures. You should also sign each room list separately. However

This challenge is a bit different as the function you are given already contains some co …
Given a sentence, create a function that replaces every "a" as an article with "an absolute". It should retu

Examples
absolute("I am a champion!!!") ➞ "I am an absolute champion!!!"

absolute("Such an amazing bowler.") ➞ "Such an amazing bowler."

absolute("A …
Suppose you have a guest list of students and the country they are from, stored as key-value pairs in an c

const GUEST_LIST = {
  Randy: "Germany",
  Karla: "France",
  Wendy: "Japan",
  Norman: "England",
  Sam: "Argentina"
}

Write a function that takes in a name and returns a name tag, that should read:

Given an array of numbers and a positive value for n, return the sum of every nth number in the array.

Examples
sumEveryNth([4, 8, 6, 6, 7, 9, 3], 1) ➞ 43
//
4+8+6+6+7+9+3 = 43

sumEveryNth([7, 3, 10, 4, 5, 8, 4, 9, 6, 9, 10, 1, 4], 4) ➞ 14
// 4+9+1 =

Create a function that takes an array of objects and calculate the total based on the quantity of items pur

Examples
checkout([
  { desc: "potato chips", prc: 2, qty: 2, taxable: false },
  { desc: "soda", prc: 3, qty: 2, taxable: false },
  { desc: "paper plates", …

So we can use resolve and reject callbacks to help us store async results whether successful or unsuccess

Mubashir created a simple timer but he needs your help to make it readable inside a microcontroller.

Create a function that takes the number of seconds and returns the timer in "00:00:00" format.

Examples
simpleTimer(0) ➞ "00:00:00"

simpleTimer(59) ➞ "00:00:59"

simpleTimer(60) ➞ "00:01:00"

simpleTimer(3599) ➡ "00:59:59" …
Create a function that transforms sentences ending with multiple question marks ? or exclamation mark

Examples
noYelling("What went wrong?????????") ➡ "What went wrong?"

noYelling("Oh my goodness!!!") ➡ "Oh my goodness!"

 …
Create a function that returns true if the given string has any of the following:
Only letters and no numbers.
Only numbers and no letters.

If a string has both numbers and letters, or contains characters which don't fit into any category, return f

Examples
alphanumericRestriction("Bold") ➡ true

alphanumericRestrictio …
Two matrices must have an equal number of rows and columns to be subtracted. In which case, the subt

The result of the subtraction of A and B, denoted A - B is computed by subtracting corresponding elemen

 …
Noddy has written a mysterious function which takes in a word and returns true if it's passed a specific te

Examples
noddyFunction("FANTASTIC") ➡ true

noddyFunction("wonderful") ➡ false

noddyFunction("NODDY") ➡ false

Notes
Che …
Some characters do not change after a rotation of 180 degrees. They can be read, although sometimes ir

So, the word "WOW" turns into the word "MOM". On the other han …
Create a function that takes in an array and returns an array of the accumulating sum.

Examples
accumulatingArray([1, 2, 3, 4]) ➡ [1, 3, 6, 10]
// [1, 3, 6, 10] can be written as [1, 1 + 2, 1 + 2 + 3, 1 + 2 + 3 + 4]

accumulatingArray([1, 5, 7]) ➡ [1, 6, 13]

accumulatingArray([1, 0, 1, 0, 1]) ➡ [1, 1, 2, 2, 3]

accumulati …

Given an array of strings (depicting a skyline of several buildings), return in meters the height of the talles

Examples
```
tallestBuildingHeight([
  "       ##",
  "       ##",
  "       ##",
 "###  ###  ##",
 "###  ###  ###",
 "###  ###  ###",
 "###    …
const user = {
 first: 'James',
 last: 'Baker',
 bestFriend: {
   first: 'Scott',
   last: 'Parkman'
 }
}

function welcomeMsg(user) {
  console.log("Welcome " +  user.first + " " + user.last  )
}

welcomeMsg(user)
// outputs Welcome James Baker
```

With ES6 object destructuring you make this less terse by destructuring t …

Turn each character in a string str into its ASCII character code and join them together to create a numbe

For example, for string "abc", the number is 979899. We will call this number "num1".
abc ➞ "a" = 97, "b" = 98, "c" = 99 ➞ 979899

Then replace any incidence of the number 7 with the number 1, and call this number …

Create a function which adds zeros to the start of a binary string, so that its length is a multiple of 8.

Examples
completeBinary("1100") ➞ "00001100"

completeBinary("1101100") ➞ "01101100"

completeBinary("110010100010") ➞ "0000110010100010"

Notes
Return the same string if its length is already a multiple of 8.

Create a function that takes an array of booleans that represent whether or not a player has logged into

Examples
dailyStreak([true, true, false, true]) ➜ 2

dailyStreak([false, false, false]) ➜ 0

dailyStreak([true, true, true, false, true, true]) ➜ …
Create a function that takes two arrays and combines them by alternatingly taking elements from each a

The arrays may be of different lengths, with at least one character / digit.
The first array will contain string characters (lowercase, a-z).
The second array will contain integers (all positive).

Examples
me …
You have an array of integers, and for each index you want to find the product of every integer except th

Create a function that takes an array of integers and returns an array of the products.

Examples
getProducts([1, 7, 3, 4]) ➜ [84, 12, 28, 21]

getProducts([1, 2, 6, 5, 9]) ➜ [540, 270, 90, 108, …
Create a function that takes an array and returns an array of the accumulating product.

Examples
accumulatingProduct([1, 2, 3, 4]) ➜ [1, 2, 6, 24]
// [1, 2, 6, 24] can be written as [1, 1 x 2, 1 x 2 x 3, 1 x 2 x 3 x 4]

accumulatingProduct([1, 5, 7]) ➜ [1, 5, 35]

accumulatingProduct([1, 0, 1, 0]) ➜ [1, 0, 0, 0]

accumulati …
Write a function that returns the greatest common divisor of all array elements. If the greatest common

Examples
gcd([10, 20, 40]) ➜ 10

gcd([1, 2, 3, 100]) ➜ 1

gcd([1024, 192, 2048, 512]) ➜ 64

Notes
Array elements are always greater than 0.
There is a minimum of two array elements given.

Given an array of user objects. If we just wanted to get the name of the third object in the array, one way

```
let users = [
  { name: "John", email: "john@example.com" },
  { name: "Jason", email: "jason@example.com" },
  { name: "Jeremy", email: "jeremy@example.com" },
  { name: "Jacob", …
```

Create a function which calculates how many numbers are missing from an ordered number line. This nu

howManyMissing([1, 2, 3, 8, 9]) ➞ 4

// The number line starts at 1 and ends at 9 (so …

Write a function that takes the number of seconds and returns the digital format clock time as a string. T

Examples
digitalClock(5025) ➞ "01:23:45"
// 5025 seconds is 1 hour, 23 mins, 45 secs.

digitalClock(61201) ➞ "17:00:01"
// No AM/PM. 24h format.

digitalClock(87000) ➞ "00:10:00"
// …

Given an array of numbers, of any length, create a function which counts how many of those numbers pa
The first and last digits of a number must add to 10.

Examples
endsAddTo10([19, 46, 2098]) ➞ 3

endsAddTo10([33, 44, -55]) ➞ 1

endsAddTo10([]) ➞ 0

Notes
All items in the array will be numbers.
Ig …

Create two functions: a left-shift function and a right-shift function. Each function will take in an array an

[1, 2, 3, 4, 5]

[2, 3, 4, 5, 1] // left shift of 1
[5, 1, 2, 3, 4] // left shift of 4

[5, 1, 2, 3, 4] // right shift of 1
[3, 4, 5, 1, 2] // right shift of 3

Exampl …

The facts are:

You've just finished dinner.
You love spicy food but your friend hates it.

Given your friend's unfortunate taste preferences, you decide to split the bill only for non-spicy items. Yo

Given two ordered arrays, one classifying the dishes as spicy vs. non-spicy and the …
Write a function that returns the smallest N-digit number which is a multiple of the specified value.

Examples
smallest(3, 8) ➡ 104
// Smallest 3-digit integer that is a multiple of 8

smallest(5, 12) ➡ 10008

smallest(7, 1) ➡ 1000000

smallest(2, 3) ➡ 12

Notes
N/A
A night club will give you a word. For entrance, you need to provide the right number according to the pr

Every given word will have a doubled letter, like "dd" in addiction. To answer the right number you need

Create a funct …
Mubashir was walking through a straight street with exactly n identical houses on both sides. House num

1 | | 6

3 | | 4

5 | | 2

He noticed that Even numbered houses increases on the right while Odd numbered houses decreases on

Create a function that takes a house number …
Create a function that takes a number n (integer greater than zero) as an argument, and returns 2 if n is o

You can only use the following arithmetic operators: addition of numbers +, subtraction of numbers -, mu

You are not allowed …
YouTube currently displays a like and a dislike button, allowing you to express your opinions about partic

There are two other interesting rules to be noted about the interface:

Pressing a button, which is already active, will …
You can think of character classes as characters with special meaning. They are recognized as special whe

Here are a list of the characters classes in JavaScript:

., \cX, \d, \D, \f, \n, \r, \s, \S, \t, \v, \w, \W, \0, \xhh, \uhhhh, \uhhhhh,

You might get text that looks like it's al …
In this challenge, you have to build a word from the scrambled letters contained in the first given array. F

letters = ["e", "t", "s", "t"]
positions = [1, 3, 2, 0]

Step 1 → Letter "e" goes to index 1 → _ …
Write a function that replaces all letters within a specified range with the hash symbol #.

Examples
replace("abcdef", "c-e") → "ab###f"

replace("rattle", "r-z") → "#a##le"

replace("microscopic", "i-i") → "m#croscop#c"

replace("", "a-z") → ""

Notes
The range will always be in order, a.k.a. for m-n, character m will alwa …
Given an array of integers, return the largest gap between elements of the sorted version of that array.

Here's an illustrative example. Consider the array:

[9, 4, 26, 26, 0, 0, 5, 20, 6, 25, 5]

... which, after sorting, becomes the array:

[0, 0, 4, 5, 5, 6, 9, 20, 25, 26, 26]

... so that we now see that the largest gap …
Given a string, return if a given letter always appears immediately before another given letter.

Worked Example
bestFriend("he headed to the store", "h", "e") → true

// All occurences of "h": ["he", "headed", "the"]
// All occurences of "h" have an "e" after it.
// Return true

Examples
bestFriend("he headed to the store", …
Create a function that counts the number of blocks of two or more adjacent 1s in an array.

Examples
countOnes([1, 0, 0, 1, 1, 0, 1, 1, 1]) ➞ 2
// Two instances: [1, 1] (middle) and [1, 1, 1] (end)

countOnes([1, 0, 1, 0, 1, 0, 1, 0]) ➞ 0

countOnes([1, 1, 1, 1, 0, 0, 0, 0]) ➞ 1

countOnes([0, 0, 0]) ➞ 0

Notes
A single 1 by …
What does the word LFAND represent? It represents the word Finland, because F is in LAND!

Create a function which replicates this to create brand new original word riddles! For the purposes of thi:
The number 6090609 has a special property: if you turn the number upside down (imagine rotating your

Write a function that takes a string on the digits 0, 6, 9 and returns true if the number is the same upside

Examples
sameUpsidedown("6090609") ➞ true

sa …
The instructor assigns Boron two tasks (regarding the use of reduce() method after lecturing in array me

The first task is to create a function calculateSum() that takes a string and returns the sum of the ASCII va
The second task is to create a function rever …
Create a function that takes an array of strings and return the number of smiley faces contained within it
A smiley has eyes. Eyes can be : or ;.
A smiley has a nose but it doesn't have to. A nose can be - or ~.
A smiley has a mouth which can be) or D.

No other charact …
In this challenge you will be given an array of numbers. Your task is to "marry" each pair of adjacent num

If the array has an odd length, one number is (sadly) left out, so you should return "bad match".

Examples
isGoodMatch([1, 2, 4, 7]) ➞ [1+2, 4+7] ➞ [3 …
Create a function that takes the values Dd (Dielectric Outer Diameter), Dc (Inner Conductor Diameter) an

Examples
impedanceCalculator(20.7, 2, 4) ➞ 70.0

impedanceCalculator(5.3, 1.2, 2.2) � 60.0

impedanceCalculator(4.48, 1.33, 2.2) ➝ 50.0

Notes
If you …
Create a function that tests whether or not an integer is a perfect number. A perfect number is a number

For example, 6 is a perfect number, since 1 + 2 + 3 = 6, where 1, 2, and 3 are all factors of 6. Similarly …
Create a function that takes an empty function as a string and returns the function as a arrow function.

Examples
function test(a) {} ➝ "const test = (a) =>"

function twoArgs(a,b) {} ➝ "const twoArgs = (a,b) =>"

function restArgs(...a) {} ➝ "const restArgs = (...a) =>"

Notes
Functions can have multiple arguments …
In Digital Decipher, decoding is done by the simple subtraction of numbers in the key and the correspond

Create a function that takes two arguments; a positive integer and an array of integers and returns a dec
Create a function that takes both a string and an array of numbers as arguments. Rearrange the letters in

Examples
remix("abcd", [0, 3, 1, 2]) ➝ "acdb"

The string you'll be returning will have: "a" at index 0, "b" at index 3, "c" at …
A Sudoku is a 9x9 grid that is completed when every 3x3 square, row and column consists of the numbers

For this task, you will be given a completed 3x3 square, in the form of a two-dimensional array. Create a
Consider the equation ax-b=bx-3a+4 where a and b are constants. Create a function that takes numbers a

If the equation does not have a solution, return "No solution".
If any number satisfies the equation, return "Any number".

Examples
solve(1, 2) ➝ -3.0

solve(- …
You've just webscraped a web page and stored it in a string. In the string there is a bullet list of states tha

const str = `
Texas = no
California = yes

Florida = yes
Michigan = no
`

Add a positive lookahead assertion so a regex match would output the states that voted yes

Note …
In a game of RisiKo! (the Italian version of the popular board game Risk!), the players throw six-sided dice

When two players contend a territory there is a battle, and they throw from 1 up to 3 dice, with each die
Create a class named User and create a way to check the number of users (number of instances) that wer

Examples
u1 = new User("johnsmith10")
User.userCount → 1

u2 = new User("marysue1989")
User.userCount → 2

u3 = new User("milan_rodrick")
User.userCount → 3 …
Write a function that reverses the subarray between the start and end index (inclusive). The rest of the a

Examples
rangedReversal([1, 2, 3, 4, 5, 6], 1, 3) → [1, 4, 3, 2, 5, 6]

rangedReversal([1, 2, 3, 4, 5, 6], 0, 4) → [5, 4, 3, 2, 1, 6]

rangedReversal([9, 8, 7, 4], 0, 0) → [9, 8, 7, 4]

Not …
Captain Hook and his crew are currently resting at Origin Shore. They are about to embark on their next a

Captain Hook's ship can only move exactly north, south, east or west. It takes exactly 1 day for the ship to
Create a function that takes two inputs: idx (an array of integers) and str (a string). The function should re

Examples
indexFilter([7, -1, 5, 1], "She is the love of my love") → "tesh"

indexFilter([4, -7, -13, -11, -2, 0], "Relax and stay calm to av …
Create a function that takes an array of factorial expressions and returns their sum.

Examples
evalFactorial(["2!", "3!"]) → 8

evalFactorial(["5!", "4!", "2!"]) → 146

evalFactorial(["0!", "1!"]) → 2

Notes
0! and 1! both equal 1.
Alliteration refers to a sequence of words that begin with the same letter. For this exercise, a sentence is

Examples
alliterationCorrect("She swam to the shore.") → true
// All words >= 4 letters long begins with "s"

allitera …
Create a function that takes multidimensional array, converts into one dimensional array and returns it u

Examples
flatten([[17.2, 5, "code"]]) → [17.2, 5, "code"]

flatten([[[[[2, 14, "rubber"]]], 2, 3, 4]]]) → [2, 14, "rubber", 2, 3, 4]

flatten([["balkot"]]) → ["balkot"]

Notes
Input contains at least one …
This challenge concerns square matrices (same number of rows and columns) as the below example illust

[
  [1, 2, 3],
  [4, 5, 6],
  [7, 8, 9]
]

The entries in the diagonal line from the top left to the bottom right form the main diagonal of the matri

Write a function tha …
Create a function that takes a phrase and transforms each word using the following rules:

Keep first and last character the same.
Transform middle characters into a dash -.

Examples
partiallyHide("skies were pretty") → "s---s w--e p----y"

partiallyHide("red is not my color") → "r-d is n-t my c---r"

partiallyHide("She rol …
Consider the equation ax+1=b+x where a and b are constants.

Create a function that takes numbers a and b as arguments, and returns the solution of the equation. If t

Examples
solve(4, 7) → 2.0

solve(9, 5) …
Given three numbers, x, y and z, determine whether they are the edges of a right angled triangle.

Examples
rightTriangle(3, 4, 5) → true
// This is the classic example of a "nice" right angled triangle.

rightTriangle(145, 105, 100) → true
// This is a less famous example.

rightTriangle(70, 130, 110) → false
// This isn't …
Create a function that finds the reverse complement of a ribonucleic acid (RNA) strand. The RNA will be r

original -> complement
AAA -> " …
Create a function that, given a number, returns the corresponding value of that index in the Fibonacci se

The Fibonacci Sequence is the series of numbers:

1, 1, 2, 3, 5, 8, 13, 21, 34, …

The next number is found by adding the two numbers before it:

The 2 is found by adding the two numbers before it (1+1).
The 3 is …
The image below shows a sequence of larger and larger houses of cards, with the total number of cards i

House of Cards

Given the tower height n, return the number of cards needed to construct a full house of cards.

Examples
cardsNeeded(3) → 15

cardsNeeded(4) → 26

cardsNeeded(0) → 0

Notes
The height sho …
In this challenge, establish if a given integer num is a Curzon number. If 1 plus 2 elevated to num is exactl

Given a non-negative integer num, implement a function that returns true is num is a Curzon number, or

Examples
isCurzon(5) …
Write a regular expression that matches any valid Canadian postal code with any of the following formats
A1A 1A1
A1A-1A1
A1A1B1

Make the match case insensitive.

Examples
M3M 0A9 ➞ true

m4c-1t1 ➞ true

m45 1t1 ➞ false

M4C-1T1Z ➞ false

Notes
This challenge is designed to use Regex only.
For this task, you will write two validators.

Shift Validator: When each element is translated (added or subtracted) by a constant.
Multiple Validator: When each element is multiplied (by a positive or negative number) by a constant.

A few examples to illustrate these respective functions:

Examples
isShifted([1, 2, 3], [2 …
Given the parameters day, month and year, return whether that date is a valid date.

Examples
isValidDate(35, 2, 2020) ➞ false
// February doesn't have 35 days.

isValidDate(8, 3, 2020) ➞ true
// 8th March 2020 is a real date.

isValidDate(31, 6, 1980) ➞ false
// June only has 30 days.

Notes
N/A
Given an integer, return "odd" if the sum of all odd digits is greater than the sum of all even digits. Return

Examples
oddsVsEvens(97428) → "odd"
// odd = 16 (9+7)
// even = 14 (4+2+8)

oddsVsEvens(81961) → "even" …
Mubashir needs your help to find the Simple Numbers in a given range.

A number X, that has an N amount of digits (which we'll enumerate as d1, d2, …, dN), is Simple if the follo

$$X = d1^1 + d2^2 + … + dN^N$$

Examples of Simple Numbers:
$$89 = 8^1 + 9^2$$

$$135 = 1^1 + 3^2 + 5^3$$

Create a function that …
Create a regular expression to check whether the given string is a valid floating numeric character or not

Examples
isFloatingCharacter("12.12") → true

isFloatingCharacter("12.") → false

isFloatingCharacter(".1") → true

isFloatingCharacter("-.1") → true

isFloatingCharacter("abc") → false

Notes
All inputs are strings. …
A number sequence is as follows:

5, 100, 6, 200, 7, 400, 8, 800, 9, 1600, 10, 3200, …

Given that 5 is at position 1, create a function that returns the number found at position num in the sequ

Examples
littleBig(4) → 200

littleBig(5) → 7

littleBig(28) → 819200

Notes

You can expect to be only given valid inputs.

Given a lottery ticket (ticket), represented by an array of 2-value arrays, create a function to find out if yc

To do this, you must first count the "mini-win" on your ticket. Each subarray has both a string and a numl

You're needed to finish a program that lists how many tall people work in your company. All that is need

const res = ["tall height", "tall height", "short height", "medium height", "tall height"]

function countTall(res) {
  const REGEXP = /* YOU FILL IN …

Given a number, return a string which is formatted into US Dollars and cents!

Remember that:

You should round to two digits after the decimal point (even for integers).

Thousandths should be separated by commas.

Examples

dollaDollaBills(10) → "$10.00"

dollaDollaBills(1000000) → "$1,000,000.00"

dollaDollaBills(-314159.265 …

Create a function that builds a word from the scrambled letters contained in the first array. Use the seco

Examples

wordBuilder(["g", "e", "o"], [1, 0, 2]) → "ego"

wordBuilder(["e", "t …

In this challenge, you have to establish if a number is apocalyptic. A positive integer n greater than 0 is ap

Given an integer n, implement a function that returns:

Safe if n is not apocalyptic.

Single if inside 2^n there's a single occurr …

Write a RegExp that looks for all decimal numbers including integer ones, with the floating point and neg

Example

const REGEXP = /your regexp/g

let str = "-1.5 0 2 -123.4."

str.match(REGEXP) → -1.5, 0, 2, -123.4

Notes

The solution is in the Resources tab.

Create a regular expression to find all (opening and closing) HTML tags with their attributes. Assume that

Example

const REGEXP = /your regexp/g

let str = '   '

str.match(REGEXP) ➝ '', '', ''

Notes
The solution is in the Resources tab.
Create a function that subtracts 1 from n (unless it ends in 0) k number of times. If n ends in 0, remove t

To illustrate:
n = 22
k = 3

This means our number is 22 and we have to repeat the algorithm three times. 22 does not end in 0 so w

22 - 1 = 21
k = 1
21 - 1 = 20
k = 2

Now 20 ends in …
The insurance guy calls, the policy you chose doesn't cover values below 5000€, it wouldn't dignify your s

Examples
{ tv: 4999, guitar:5000, fork: 5001 } ➝ { guitar:5000, fork: 5001 }

{ tv: …
Graded lexicographic order (grlex order for short) is a way of ordering words that:

First orders words by length.
Then orders words of the same size by their dictionary order.

For example, in grlex order:
tray < "trapped" since "tray" has length 4 while "trapped" has length 7.
trap < "tray" since both have length 4, bu …
Create a function that takes a string and returns an array of the letters that occur only once.

Examples
findLetters("monopoly") ➝ ["m", "n", "p", "l", "y"]

findLetters("balloon") ➝ ["b", "a", "n"]

findLetters("analysis") ➝ ["n", "l", "y", "i"]

Notes
The final array should not include letters that appear more than once i …

Mubashir created a simple robot that is navigated by a series of North, East, South, and West [n, e, s, w]

Destination No. 1: e, n, e, e, n
Destination No. 2: w, n, w, n, w, w, n

Create a function that t …
Given a string, create a function which outputs an array, building and deconstructing the string letter by l

Examples
constructDeconstruct("Hello") ➞ [
 "H",
 "He",
 "Hel",
 "Hell",
 "Hello",
 "Hell",
 "Hel",
 "He",
 "H"
]

constructDeconstruct("edabit") ➞ [
 …
Create a function that takes an array of students and returns an array of their top notes.
If the student does not have notes then let's assume their top note is equal to 0.

Examples
getStudentTopNotes([
 {
   id: 1,
   name: "Jacek",
   notes: [5, 3, 4, 2, 5, 5]
 },
 {
   id: 2,
   name: "Ewa",
   notes: [2, 3, 3, …
Create a function that takes a string and returns true if the sum of the position of every letter in the alph

Examples
isAlpha("i'am king") ➞ true
// 9 + 1 + 13 + 11 + 9 + 14 + 7 = 64 (even)

isAlpha("True") ➞ true
// 20 + 18 + 21 + 5= 64 (even)

isAlpha("alexa") ➞ false

// 1 + 12 …
Mubashir was testing how atoms can react in their ionic state during nuclear fusion. He observed that at
Write a function that returns true if all subsets in a list belong to a given set.

Examples
validateSubsets([[1, 2], [2, 3], [1, 3]], [1, 2, 3]) → true

validateSubsets([[1, 2, 3], [2], [3], []], [1, 2, 3]) → true

validateSubsets([[1, 2], [2, 3], [1, 4]], [1, 2, 3]) → false

validateSubsets([[1, 2, 3, 4]], [1, 2, 3]) → fal …
Create a function that takes a fractional number as a string for its argument and returns its half.

Examples
fractionHalf("1/2") → "1/4"

fractionHalf("6/8") → "3/8"

fractionHalf("3/8") → "3/16"

Notes
Always return the simplified fraction (reduced to its lowest terms).
Today Juan learned to graph quadratic equations, so he chose to speed up the process and avoid having t

Ok, I am going to give you some advantages. The first is that you will not have to perform so many steps.
A built-in timer inside your car can count the length of your ride in minutes and you have started your rid

Given the number of minutes n at the end of the ride, calculate the current time. Return the sum of digit:

Examples
carTimer(240 …
Write a function that transforms an array of characters into an array of objects, where:

The keys are the characters themselves.
The values are the ASCII codes of those characters.

Examples
toObj(["a", "b", "c"]) → [{a: 97}, {b: 98}, {c: 99}]

toObj(["z"]) → [{z: 122}]

toObj([]) → []

Notes
N/A
In normal object literals you can create dynamic property names by using computed values:

```
let key = "name"
let foo = {[key]: "bar"}

console.log(foo.name); // "bar"
```

However, in object destructuring it works a little different:

```
let key = "foo"
let {[key]: "foo"} = {foo: "Jessie"}

console.log(foo)  // Invalid destructuring …
```

The anti-divisors are numbers that do not divide a given number by the largest possible margin, and they

Every number greater than 1 and lower than n is checked.
Every checked number must not be a divisor of n.
If the checked number is odd and it is a divisor of n * 2 - 1 or n * …
Create a function that takes two numbers n1 n2 and multiplies them without using *.

Examples
multiply(3, 2) → 6

multiply(4, 10) → 40

multiply(-2, 4) → -8

Notes
Do not use * for this challenge.
Create a function that finds the reverse complement of a ribonucleic acid (RNA) strand. The RNA will be r

Original | Complement
:--- | :--- …
Create a function that takes a string and returns the number of alphanumeric characters that occur more

Examples
duplicateCount("abcde") → 0

duplicateCount("aabbcde") → 2

duplicateCount("Indivisibilities") → 2

duplicateCount("Aa") → 0
// Case sensitive

Notes
Duplicate characters are case sensitive.
The input …

Create a function that returns the number of palindrome numbers in a specified range (inclusive).

For example, between 8 and 34, there are 5 palindromes: 8, 9, 11, 22 and 33. Between 1550 and 1552 th

Examples
countPalindromes(1, 10) ➞ 9

countPalindromes(555, 556) ➞ 1

countPalindromes(8 ...
This is a reverse coding challenge. Normally you're given explicit directions with how to create a function

Your task is to create a function that, when fed the inputs below, produce the sample outputs shown.

Examples

Write a
function
that takes
the
coordinates
of three
points in
the form of
a 2d array
and returns
the
perimeter
of the
triangle.
The given
points are
the vertices
of a triangle
on a two-
dimensiona
l plane.

Examples
perimeter([
[15, 7], [5,
22], [11,
1]]) ➞

splitGroups("5556667788") ➞ ["555", "666", "77", "88"]

splitGroups("aaabbbaabbab") ➞ ["aaa", "bbb", "aa", "bb", "a", "b"]

splitGroups("abbbcc88999&&!!!") ➞ ["a", "bbb", "cc", "88", "999", "&&", "!!!", ""]

No …
Create a function that takes a string as an argument and returns the Morse code equivalent.

Examples
encodeMorse("EDABBIT CHALLENGE") ➞ ". -.. .- -... -... .. -   -.-. .... .- .-.. .-.. . -. --. ."

encodeMorse("HELP ME !") ➞ ".... . .-.. .--.   -- .   -.-.--"

Notes
Ouput should be International Morse Code, and use the sta …
The Hamming Code is used to correct errors in data transmissions. Create a function that takes a string co

There are some variations on the rules of encipherment. One version of the cipher rules are outlined belo

hammingCode("hey") ➞
0001110 …
Create a
function
which
constructs
a
rectangular
birthday
cake, based
on
someone's
name and
age! Build it
out of
strings in an
array and
make sure
to surround
the
birthday
message
with the
character
that fits the
rule:

If the age is
If the age is an odd number, surround the mes …

A Kaprekar Number is a positive integer that is equal to a number formed by first squaring, then splitting

If the quantity of digits of the squared number is even, the left and right parts will have the same length.
If the quantity of digits of the squared number is odd, then the r …
Create a function which takes an array of instances from the class IceCream and returns the sweetness va

Sweetness is calculated from the flavor and number of sprinkles. Each sprinkle has a sweetness value of 1

Flavors | Sweetness Value …
Mubashir is not so good with the English language. He needs your help to correct his sentences.

Start each sentence with an uppercase alphabet.
For every uppercase letter (other than the first alphabet), you have to place a fullstop(.) followed by an e
There must be only one space between the words and sentences. …
Write a function that retrieves all words that begin with a vowel.

Examples
retrieve("A simple life is a happy life for me.") ➞ ["a", "is", "a"]

retrieve("Exercising is a healthy way to burn off energy."
➞ ["exercising", "is", "a", "off", "energy"]

retrieve("The poor ostrich was ostracized.")
➞ ["ostrich", "ostracized"]

 …
Suppose that you add all of the page numbers in a book. If the total is 21, the book could only have 6 pag
that would be impossible because the next number in the series is 28 (21 + 7).

Create a function that, given the total number of pages as an argu …
Given a predetermined rate from an object, write the function that will return the time it takes for a cer

The "rate" object shows how many minutes it takes "people" people to paint "walls" walls. At that same
In this challenge, you have to verify that every, or some, of the given variables, pass a given test conditio

test A string being the condition to verify.
type A string with two possible values:
  everybody if every variable has to pass the test;
  somebody if at least one of the variables has …
Given a string indicating a range of letters, return a string which includes all the letters in that range, inclu

Examples
gimmeTheLetters("a-z") ➞ "abcdefghijklmnopqrstuvwxyz"

gimmeTheLetters("h-o") ➞ "hijklmno"

g …

This question is inspired by the popular Uno card game.

Write a function that takes in two arguments: (1) a player's current hand and (2) the current face-up card

A player can make a play if either:
 …
The right shift operation is similar to floor division by powers of two, thus, the process is repetitive and c

Sample calculation using the right shift operator (>>):
80 >> 3 = floor(80/2^3) = floor(80/8) = 10
-24 >> 2 = floor(-24/2^2) = floor(-24/4) = -6
-5 >> 1 = floor(-5/2^1) = floor(-5/2) = -3

 …
You are needed to finish a program that lists how many bad cookies are produced every day. A list of all t

const cookies = ["bad cookie", "good cookie", "bad cookie", "good cookie", "goo …
In this question you will be given a table as below, where the first row lists the names of products, and ea

```
[
 ["A", "B", "C"],
 [ 2 , 7 , 1 ],
 [ 3 , 6 , 6 ],
 [ 4 , 5 , 5 ]
]
```

Write a function that receives:
A sales table sa …
Create a function that divides a string into parts of size n.

Examples
partition("chew", 2) → ["ch", "ew"]

partition("thematic", 4) → ["them", "atic"]

partition("c++", 2) → ["c+", "+"]

Notes
For inputs that do not split evenly into parts of size n, the last element in the array will have a "leftover" s
Create a function that takes in an array of full names and returns the initials.

Examples
initialize(["Stephen Hawking"]) → ["S. H."]

initialize(["Harry Potter", "Ron Weasley"]) → ["H. P.", "R. W."]

initialize(["Sherlock Holmes", "John Watson", "Irene Adler"]) → ["S. H.", "J. W.", "I. A."]

Notes
Each initial is followed …
In mathematics, the harmonic series is the divergent infinite series:

Alternative Text

Its name derives from the concept of overtones, or harmonics in music.

Create a function that, given a precision parameter n, returns the value of the partial sum of the harmoni

Examples
harmonic(3) ➞ 1.833

harm …
The 2nd of February 2020 is a palindromic date in both dd/mm/yyyy and mm/dd/yyyy format (02/02/202

Examples
palindromicDate("02/02/2020") ➞ true

palindromicDate("11/12/2019") ➞ false

palindromicDate(" …
Create a function that takes two numbers as arguments and returns the first number rounded to the nea

Examples
roundNearest(17, 10) ➞ 20

roundNearest(36.3) ➞ 36

roundNearest(123, 5) ➞ 125

Notes
If no nearest number is given, round the number as you normally would (see example #2).
Write a function that sorts an array of characters alphabetically in ascending order (a-z) by the character

Examples
sortByCharacter(["az16", "by35", "cx24"], 2) ➞ ["cx24", "by35", "az16"]
// By 2nd character: ["x", "y", "z"] is in alphabetical order.

sortByCharacter(["mayor", "apple", "petal"], 5) ➞ ["a …
The Russian schoty is type of abacus (counting tool) that is used by sliding threaded beads along horizont
A number is left-heavy if the digits on the left side are larger than the digits on the right. It is right-heavy

Create a function that takes in an integer and classifies it into one of the three mutually exclusive categor
Create a function that takes an array of card numbers and checks if the sum of their value exceeds 21. If t

2-10 are their value.

J-K (face cards) count as 10.

Aces count either as 1 or 11 - play conservat …

Write a function that takes in a word and splits the consonants one by one, but keeps the vowels in a clu:

Examples

split("beautifully") → ["b", "eau", "t", "i", "f", "u", "l", "l", "y"]

split("spoonful") → ["s", "p", "oo", "n", "f", "u", "l"]

split("swimming") → ["s", "w", "i", "m", "m", "i", "n", "g"]

Notes

Vowels …

Create a function that takes an integer and returns it as an ordinal number. An Ordinal Number is a numb

Examples

returnEndOfNumber(553) → "553-RD"

returnEndOfNumber(34) → "34-TH"

returnEndOfNumber(1231) → "1231-ST"

returnEndOfNumber(…

JavaScript doesn't really have classes like other languages. They are actually functions behind the scenes.

Challenge

Create a Book class using a JavaScript function - instantiable.

It should have a author and published property.

Create an Author class using a literal object - sing …

Every quadratic curve y = a x² + b x + c has a vertex point: the turning point where the curve stops headin

Given the values a, b and c, you need to return the coordinates of the vertex. Return your answers round

Examples

findVertex(1, 0, 25) → [0, 25]

// The vertex of y=x …

According to the lodash documentation, _.difference(array, [values]) creates an array of array values not

If you wanted to use this function in the real world you woul …

For an array of ranges, find the maximum range that is contained in all the ranges. If there is no such rang

Examples

overlapping([[1, 7], [2, 8], [0, 4]]) → [2, 4]

overlapping([[5, 10], [2, 15], [10, 12]]) → [10, 10]

overlapping([[11, 18], [3, 7], [2, 20], [5, 16]]) → "No overlapping"

Notes
Both …
Our fleet managed to get one of the enemy's top-secret codes from the remains of its fallen ship. The co
Write your own version of the lodash _.matchesProperty function using vanilla JavaScript. matchesPrope

For instance, when using the regular JavaScript find method you would write …
Create a function that takes a string of words and return a string sorted alphabetically by the last charact

Examples
sortByLast("herb camera dynamic") → "camera herb dynamic"

sortByLast("stab traction artist approach") → "stab approach traction artist"

sortByLast("sample partner autonomy swallow trend") → …
Each number in the Perrin sequence is created by summing the numbers two positions and three positio

P(0) P(1) P(2) P(3) P(4) P(5) P(6) P(7) … P(n)
3, 0, 2, 3, 2, 5, 5, 7, …

Given a value for n, return the Perrin number P(n).
 …
Given a string containing unique letters, return a sorted string with the letters that don't appear in the st

Examples
getMissingLetters("abcdefgpqrstuvwxyz") → "hijklmno"

getMissingLetters("zyxwvutsrq") → "abcdefghijklmnop"

getMissingLetters("abc") → "defghijklmnopqrstuvwxyz"

getMissingLetters("abcdefghijklmnopqrst …
Welcome to part two of the collection for Computer Science Algorithms. This challenge will deal further
Create a function that calculates what percentage of the box is filled in. Give your answer as a string perc

Examples
percentFilled([
 "####",
 "# #",
 "#o #",
 "####"
]) → "25%"

// One element out of four spaces.

percentFilled([
 "#######",
 "#o oo #",
 "#######"
]) → "60%"

 ...
Create a function that determines whether elements in an array can be re-arranged to form a consecutiv

Examples
cons([5, 1, 4, 3, 2]) → true
// Can be re-arranged to form [1, 2, 3, 4, 5]

cons([5, 1, 4, 3, 2, 8]) → false

cons([5, 6, 7, 8, 9, 9]) → false
// 9 appears ...
A standard-sized golf course has 18 holes. Each hole is given a par, which is the expected number of strok

eagle = 2 under par (-2)
birdie = 1 under par (-1)
bogey = 1 over ...
Create a function that takes an array and finds the integer which appears an odd number of times.

Examples
findOdd([1, 1, 2, -2, 5, 2, 4, 4, -1, -2, 5]) → -1

findOdd([20, 1, 1, 2, 2, 3, 3, 5, 5, 4, 20, 4, 5]) → 5

findOdd([10]) → 10

Notes
There will always only be one integer that appears an odd number of times.
Given three arrays of integers: arr1, arr2, arr3, return the sum of integers which are common in all three

Examples
sumCommon([1, 2, 3], [5, 3, 2], [7, 3, 2]) → 5
// 2 & 3 are common in all 3 arrays.

sumCommon([1, 2, 2, 3], [5, 3, 2, 2], [7, 3, 2, 2]) → 7
// 2, 2 & 3 are common in all 3 arrays.

sumCommon([1], [1], ...
Given the number n and an array of interior angles angles, return whether or not it's possible to make a p

isShapePossible(3, [80, 70, 30]) → true

Triangle with the angles 80, 70 and 30

A shape with 3 sides and the ang …
You landed your dream job. They pay in geometric progression (see resources). In your first month of wo

Create a function that takes the firstMonth's paycheck and the multiplier an …
Given an object containing the names and ages of a group of people, return the name of the oldest persc

Examples
oldest({
  Emma: 71,
  Jack: 45,
  Amy: 15,
  Ben: 29
}) → "Emma"

oldest({
  Max: 9,
  Josh: 13,
  Sam: 48,
  Anne: 33
}) → "Sam"

Notes
All ages will be different.
Mubashir needs your help to write a simple algorithm of multiplication.

Given an array of integers arr and an integer n, find out a pair of numbers [x, y] from a given array such th

If the pair is not found, return null.

Examples
simplePair([1, 2, 3], 3) → [1, 3]

simplePair([1, 2, 3], 6) → [2, 3]

simplePai …
A logarithm is kind of like reverse exponents. There is a base and a number in a logarithm. The point of a

log base 5 of 25 = x

This is the same thing as saying 5 to the xth power is 25, which is 2 (so x would be …
Your boss has demanded you write a function to determine whether a given number n is prime or not. B

Can you still …
In microwave ovens, when buttons are pressed from 0-9, it will add that number to the microwave oven
Create a function that takes an integer n and returns the factorial of factorials. See below examples for a

Examples
factFact(4) ➞ 288
// 4! * 3! * 2! * 1! = 288

factFact(5) ➞ 34560

factFact(6) ➞ 24883200

Notes
N/A
It is important to be happy! Therefore, you must create a function that takes a sentence containing sad fa

Sad face examples: :(8(x(;(
Happy face examples: :) 8) x) ;)

Make sure to only change the face if there are eyes before them, ro …
In mathematics, a matrix (plural matrices) is a rectangular array or table of numbers, symbols, or express

Matrix A:
[
  [0, 1, 0, 0],
  [1, 1, 1, 1],
  [0, 1, 0, 1],
  [0, 1, 1, 5]
]

In mathematics, a square matrix is a matrix with the same number of rows and columns.

In linear algebra, …
You have one job and one job only, to ruin the day of any unsuspecting victim using the toString() functio

Examples
("Hello World!").toString() ➞ "!dlroW olleH"

("My hooking function! :3").toString() ➞ "3: !noitcnuf gnikooh yM"

("RaceCar …
Given an array of users, each defined by an object with the following properties: name, score, reputation

The leaderboard takes into consideration the score of each user of course, but an emphasis is put on thei
Unicode property escapes match characters based on their Unicode properties - Binary ("boolean-like")

const sentence = "A ticket to 大阪 costs ¥2000 👆."

sentence.match(/\p{Emoji_Presentation}/gu) ➞ …
Create a function that takes a string and checks if every single character is preceded and followed by a cl

Example: "b" should be preceded and followed by ether "a" or "c" (abc || cba || aba || cbc == true but a

Examples
neighboring("aba") → true

neighb ...

The Chi-Squared (χ^2) goodness of fit test estimates if an empirical (observed) distribution fits a theoretica
Given a square array (n*n size) implement a function that returns a new array containing two arrays equ

diagonal 1 = from upper-left to lower-right corner
diagonal 2 = from upper-right to lower-left corner

Examples
getDiagonals([[1, 2], [3, 4]]) → [[1, 4], [2, 3]]

getDi ...

Create a function which replaces the last n words with "blah". Add "..." to the last blah.

Examples
blahBlah("A function is a block of code which only runs when it is called", 5) → "A function is a block of c

blahBlah("one two three four five", 2) → "one two three blah blah..."

 ...

Create a function that takes a string of 1's and 0's (binary) as an argument and return the equivalent dec

a = 01100001
b = 01100010
c = 01100011

If you were to combine t ...

You are given the task to fetch all positive numbers from lists. You discover that the lists are in string forr

const list = "23 -43 34 -44 45 -55 56"

function positiveNum ...

Create a function that takes a string str and censors any word from a given array arr. The text removed m

Examples
censorString("Today is a Wednesday!", ["Today", "a"], "-") → "----- is - Wednesday!"

censorString("The cow jumped over the moon.", ["cow", "over"], ""), "The * jumpe ...

Create a function that accepts a string as an argument and returns the first non-repeated character.

Examples
firstNonRepeatedCharacter("g") → "g"

firstNonRepeatedCharacter("it was then the frothy word met the round night") → "a"

firstNonRepeatedCharacter("the quick brown fox jumps then quickly blows air") → "f"

firstNon …
Given an array of integers representing the color of each sock, determine how many pairs of socks with r

C …
A fuse melts when a current in an electrical device exceeds the fuse's rating, breaking the circuit and prev

Given an array of fuse ratings, and the …
Create a function that takes a string of words (or just one word) and converts each word from camelCase

Examples
camelToSnake("magicCarrots") → "magic_carrots"

camelToSnake("greatApples for aSmellyRhino") → "greatapples for asmelly_rhino"

camelToSnake("thatsGreat") → "thats_great"

Notes
You won't get more …
Consider a sequence where the first two numbers are 0 and 1 and the next number of the sequence is th

Create a function that finds the nth element of the sequence.

Examples
normalSequence(1) → 0

normalSequence(2) → 1

normalSequence(3) → 1
// (0+1)%3 = 1

normalSequence(20) → …
Create a function that takes a number and returns a string like square.

Examples
createSquare(-1) → ""

createSquare(0) → ""

createSquare(1) → "#"

createSquare(2) → "##\n##"

createSquare(3) → "###\n# #\n###"

createSquare(4) → "####\n# #\n# #\n####"

####

Notes
Square width <= 16383
Create a function that takes an array of resistors and calculates the output of total resistance if the circui

Examples
resistanceCalculator([10, 20, 30, 40, 50]) → [4.38, 150]

resistanceCalculator([25, 14, 65, 18]) → [5.48, 122]

resistanceCalculator([10, 10]) → [5, 20]

resistanceC …
Write a function that counts the number of times a specific digit occurs in a range (inclusive). The functio

digitOccurrences(min, max, digit) → number of times digit occurs

Examples
digitOccurrences(51, 55, 5) → 6
// [51, 52, 53, 54, 55] : 5 occurs 6 times

digitOccurrences(1, 8, 9) → 0

digitOccurrences(…
Create two functions toCamelCase() and toSnakeCase() that each take a single string and convert it into e

Examples
toCamelCase("hello_edabit") → "helloEdabit"

toSnakeCase("helloEdabit") → "hello_edabit"

toCamelCase("ismo …
Create a function that takes an array of integers and returns all pairs of integers that have a difference of

Examples
differenceTwo([1, 2, 3, 4]) → [[1, 3], [2, 4]]

differenceTwo([1, 23, 3, 4, 7]) → [[1, 3]]

differenceTwo([4, 3, 1, 5, 6]) → [[1, 3], …

Using markdown, it's possible to format links such as https://edabit.com/challenges, into something tidie

This was achieved by using this code:

this

Given the url, the new name and optionally the hoverText, return the tidied up hy …
Create a function that replaces "the" in the sentence with "an" or "a". Remember that if the next word b

Examples
replaceThe("the dog and the envelope") ➞ "a dog and an envelope"

replaceThe("the boy ran at the wall") ➞ "a boy ran at a wall"

replaceThe("the …
Given a very long string of ASCII characters, split the string up into equal sized groups of size width. To pr

See the miniature examples below for clarity!

Examples
formatAscii("0123456789", 2) ➞ "01\n23\n45\n67\n89"

f …
In the image below, squares are either empty or filled with a circle.

Steps vs Empty Squarest

Create a function that takes a number step (which equals HALF the width of a square) and returns the am
Write a function that takes a number and returns true if it's a prime; false otherwise. The number can be

Sieve of Eratosthenes

Examples
prime(7) ➞ true

prime(5 …
Briscola is an Italian card game, played with a deck of 40 cards that has four suits (hearts, diamonds, club
You have an object with years 2015-2020 as keys and some albums released for each year as key values.

Examples
releaseYear("Ode to Joy") ➞ 2019

releaseYear("Honeymoon") ➞ 2015

releaseYear("Fake_album") ➞ "Unknown"

Note

Albums object is ma ...
Create a function that takes a decimal number and converts it to a binary number using Stack. The Stack

Examples
toBinary(12) → 1100

toBinary(0) → 0

toBinary(101) → 1100101

Notes
0 <= n <= 101
Create a function that takes two integers and returns true if a digit repeats three times in a row at any pla

Examples
trouble(451999277, 41177722899) → true

trouble(1222345, 12345) → false

trouble(666789, 12345667) → true

trouble(33789, 12345337) → false
 ...
Given a sentence spelling out a word, return true if the spelled letters match the word at the end of the s

Examples
validateSpelling("C. Y. T. O. P. L. A. S. M. Cytoplasm?") → true

validateSpelling("P. H. A. R. A. O. H. Pharaoh!") → true

validateSpelling("H. A. N. K. E. R. C. H. E. I. F. Handker ...
Given a number n, return a sentence which describes the number in the following ways.

Always start the string with "The most ".
If n is evenly divisible by 1, add "brilliant " to the sentence.
If n is evenly divisble by 2, add "exciting " to the sentence.
... 3, add "fantastic " to the sentence.
... 4, add "virtuous " to th ...
Create a function that creates a box based on dimension n.

Examples
makeBox(5) → [
 "#####",
 "#   #",
 "#   #",
 "#   #",
 "#####"

]

makeBox(3) ➞ [
 "###",
 "# #",
 "###"
]

makeBox(2) ➞ [
 "##",
 "##"
]

makeBox(1) ➞ [
 "#"
]

Notes
N/A
If you have a triangular shape cut from a piece of cardboard, the centroid of the triangle
would be the spot where it balances on the point of a pencil. The location of the centroid is easy to calcu

The x coordinate of the centroid is at (x1 + x2 + x3) / 3
The y coordina …
Create a function which takes a parameter n and returns a function such that it, when called n times, retu

Examples
lambdaDepth(0) ➞ "edabit"

lambdaDepth(1)() ➞ "edabit"

lambdaDepth(2)()() ➞ "edabit"

typeof lambdaDepth(2)() ➞ "function"

Notes
num will always be a non-negative integer.
If num == 0 …
According to the lodash documentation, This method is like _.difference except it accepts a comparator v

This challenge requi …
Create a Book constructor that has two properties :

Title
Author

and two methods:

A method named getTitle that returns: "Title: " + the instance title.
A method named getAuthor that returns: "Author: " + the instance author.

and instantiate this constructor by creating 3 new books:

Pride and Prejudice - Jane Austen (PP) …
Create a function that takes an array and determines whether it's strictly increasing, strictly decreasing, o

Examples
check([1, 2, 3]) ➞ "increasing"

check([3, 2, 1]) ➞ "decreasing"

check([1, 2, 1]) ➞ "neither"

check([1, 1, 2]) ➞ "neither"

Notes
The last example does NOT count as strictly increasing, since 1- …
In chess, queens can move any number of squares horizontally, vertically or diagonally.

Given the location of your queen and your opponents' queen, determine whether or not you're able to c

 …
Mubashir needs your help to plant some trees. He can give you three parameters of the land:
width of the land w
length of the land l
gap between the trees g

You have to create an algorithm to return the number of trees which can be planted on the edges of the
Write a function to create a Christmas tree based on height h.

Examples
tree(1) ➞ [
#
]

tree(2) ➞ [
 " # ",
 "###"
]

tree(5) ➞ [
 "   #   ",
 " ### ",
 " ##### ",

```
  " ####### ",
  "#########"
]
```

tree(0) → []

Notes
N/A
Create a function that takes an array of numbers and return "Boom!" if the digit 7 appears in the array. C

Examples
sevenBoom([1, 2, 3, 4, 5, 6, 7]) → "Boom!"
// 7 contains the number seven.

sevenBoom([8, 6, 33, 100]) → "there is no 7 in the array"
// None of the items contain …
There are three towers. The objective of the game is to move all the disks over to tower #3, but you can't

Tower of Hanoi

Create a function that takes a number discs as an argument and returns the mini …
A boomerang is a V-shaped sequence that is either upright or upside down. Specifically, a boomerang car

Some boomerang examples:

[3, 7, 3], [1, -1, 1], [5, 6, 5]

Create a function that returns the tota …
In Mubashir Cipher, encoding is done by simply replacing paired letters from the provided key.

Create a function that takes a string containing the message to be encoded with a fixed given 2D array of

There are some variations on the rules of encipherment. One version of the cipher rules are outlined belo

k …
Create a function that determines whether a number is Oddish or Evenish. A number is Oddish if the sum

For example, oddishOrEvenish(121) should return "Evenish", …
Create a function that takes two dates and returns the number of days between the first and second date

Examples
getDays(
  new Date("June 14, 2019"),
  new Date("June 20, 2019")
) → 6

getDays(

new Date("December 29, 2018"),
new Date("January 1, 2019")
) → 3
// Dates may not all be in the same month/year.

getDays(
  …
The .length property on an array will return the number of elements in the array. For example, the array

[1, [2, 3]]
// 2 elements, number 1 and array [2, 3]
Suppose we instead wanted to know the total number of non-nested items in the nested array. In the ab
An array that represents a Binary Tree is in the following form:

binaryTree = [val, arrLeft, arrRight]

When arrLeft is the left side of the tree and arrRight is the right side of the tree.

To illustrate:

const arr1 = [3, [8, [5, null, null], null], [7, null, null]]

// arr1 represents the following Binary Tree:

  …
Create a function that takes an array of strings and returns an array with only the strings that have numb

Examples
numInStr(["1a", "a", "2b", "b"]) → ["1a", "2b"]

numInStr(["abc", "abc10"]) → ["abc10"]

numInStr(["abc", "ab10c", "a10bc", "bcd"] …
A pronic number (or otherwise called as heteromecic) is a number which is a product of two consecutive

Examples
isHeteromecic(0) → true
// 0 * (0 + 1) = 0 * 1 = 0

isHeteromecic(2) → true
// 1 * (1 + 1) = 1 …
Create a function that takes a variable number of arguments, each argument representing the number of

Examples
combinations(2, 3) → 6

combinations(3, 7, 4) → 84

combinations(2, 3, 4, 5) → …
An array is positive dominant if it contains strictly more unique positive values than unique negative valu

Examples
isPositiveDominant([1, 1, 1, 1, -3, -4]) → false
// There is only 1 unique positive value (1).
// There are 2 unique negative values (-3 …
If a person traveled up a hill for 18mins at 20mph and then traveled back down the same path at 60mph

Write a function that returns the average speed traveled given an uphill time, uphill rate and a downhill r
Write the function that takes three dimensions of a brick: height(a), width(b) and depth(c) and returns tr

Examples
doesBrickFit(1, 1, 1, 1, 1) → true

doesBrickFit(1, 2, 1, 1, 1) → true

doesBrickFit(1, 2, 2, 1, 1) → false

Notes
You can turn the brick wi …
Create a function that takes an array of objects (groceries) which calculates the total price and returns it

```
{
  "product": "Milk",
  "quantity": 1,
  "price": 1.50
}
```

Examples
// 1 bottle of milk:
getTotalPrice([
  { product: "Milk", quantity …
When coloring a striped pattern, you may start by coloring each square sequentially, meaning you spend

Create a function where given an array of colors cols, return how long it takes to color the whole pattern

It takes 1 second to switch between pencils.
I …
Write a function that returns the least common multiple (LCM) of two integers.

Examples
lcm(9, 18) → 18

lcm(8, 5) → 40

lcm(17, 11) ➝ 187

Notes
Both values will be positive.
The LCM is the smallest integer that is divisible by both numbers such that the remainder is zero.
Given a string, reverse all the words which have odd length. The even length words are not changed.

Examples
reverseOdd("Bananas") ➝ "sananaB"

reverseOdd("One two three four") ➝ "enO owt eerht four"

reverseOdd("Make sure uoy only esrever sdrow of ddo length")
➝ "Make sure you only reverse words of odd length"

Notes
There …
Write a function that counts how many concentric layers a rug has.

Examples
countLayers([
  "AAAA",
  "ABBA",
  "AAAA"
]) ➝ 2

countLayers([
  "AAAAAAAAA",
  "ABBBBBBBA",
  "ABBAAABBA",
  "ABBBBBBBA",
  "AAAAAAAAA"
]) ➝ 3

countLayers([
  "AAAAAAAAAAA",
  "AABBBBBBBAA",
  "AABCCCCCBAA",
  "AABCAAACBAA",
  "AABCADACBAA",
  " …
A pandigital number contains all digits (0-9) at least once. Write a function that takes an integer, returnin

Examples
isPandigital(98140723568910) ➝ true

isPandigital(90864523148909) ➝ false

// 7 is missing.

isPandigital(112233445566778899) → false

Notes
Think abo ...
Create a function that returns the frequency distribution of an array. This function should return an objec

Examples
getFrequencies(["A", "B", "A", "A", "A"]) → { A: 4, B: 1 }

getFrequencies([1, 2, 3, 3, 2]) → { "1": 1, ...
You can think of character classes as characters with special meaning. They are recognized as special whe

Here are a list of the characters classes in JavaScript:

., \cX, \d, \D, \f, \n, \r, \s, \S, \t, \v, \w, \W, \0, \xhh, \uhhhh, \uhhhhh, [\b]

HTML elements are everything from the ...
Write a function that returns the minimum number of swaps to convert the first binary string into the sec

Examples
minSwaps("1100", "1001") → 1

minSwaps("110011", "010111") → 1

minSwaps("10011001", "01100110") → 4

Notes
Both binary strings will be of equal length.
Both binary strings will have an equal number of zero ...
Create a function that takes three collections of arguments and returns the sum of the product of numbe

Examples
product(1,2)(1,1)(2,3) → 8
// 1 * 1 * 2 + 2 * 1 * 3

product(10,2)(5,0)(2,3) → 100
// 10 * 5 * 2 + 2 * 0 * 3

product(1,2)(2,3)(3,4) → 30
// 1 * 2 * 3 + 2 * 3 * 4

product(1,2)(0,3)(3,0) → 0
// 1 * 0 * 3 + 2 * ...
Carlos is a huge fan of something he calls smooth sentences.

A smooth sentence is one where the last letter of each word is identical to the first letter the following w

The following would be a smooth sentence "Carlos swam masterfully" because "Carlos" ends wit …
A number is said to be Disarium if the sum of its digits raised to their respective positions is the number i

Create a function that determines whether a number is a Disarium or not.

Examples
isDisarium(75) → false
// 7^1 + 5^2 = 7 + 25 = 32

isDisarium(135) → true
// 1^1 + 3^2 + 5^3 = 1 + 9 + 125 = 135

isDisarium(5 …
Write a function to replace all instances of character c1 with character c2 and vice versa.

Examples
doubleSwap("aabbccc", "a", "b") → "bbaaccc"

doubleSwap("random w#rds writt&n h&r&", "#", "&")
→ "random w&rds writt#n h#r#"

doubleSwap("128 895 556 788 999", "8", "9")
→ "129 985 556 799 888"

Notes
Both characters will s …
Write a function that takes an integer n, reverses the binary representation of that integer, and returns t

Examples
reversedBinaryInteger(10) → 5
// 10 = 1010 -> 0101 = 5

reversedBinaryInteger(12) → 3
// 12 = 1100 -> 0011 = 3

reversedBinaryInteger(25) → 19
// 25 = 11001 -> 10011 = …
Create an ordered 2D array (matrix). A matrix is ordered if its (0, 0) element is 1, its (0, 1) element is 2, ar

Examples
orderedMatrix(5, 5) → [
 [1, 2, 3, 4, 5],
 [6, 7, 8, 9, 10],
 [11, 12, 13, 14, 15],
 [16, 17, 18, 1 …

Build a function that creates histograms. Every bar needs to be on a new line and its length corresponds t

histogram(arr, char) ➞ str

Examples
histogram([1, 3, 4], "#") ➞ "#\n###\n####"

hi …
The insurance guy laughs, he's just kidding. He just needs an updated list. You just need one of those Ram

Given an object with alcoholic drinks and a number, return a string with the name of the Rammstein bott

Examples
{ whiskey: 100, "Rammstein A": 100, "Rammstein B": …
Create two functions:

The first is isOdd() to check if a given number is odd using bitwise operator.
The second is isEven() to check if a given input is even using regular expressions.

Use of % operator is disallowed.

Examples
isOdd(3) ➞ "Yes"
// Use Bitwise Operator

isOdd(58) ➞ "No"
// Use Bitwise Operator

isEven("0") …
Legendre's formula finds the exponent of the largest power of some prime p that divides (is a factor of) t

Legendre's formula example (p = 2 and n = 27):

Legendre's Formula

So 2^23 is the largest power of 2 that divides 27!.

The formula returns the sum of many fractions (rounded down) with n …
Given a known number of unique items, how many ways could we arrange them in a row?

Create a function that takes an integer n and returns the number of digits of the number of possible pern
Create a function that converts a word to a bitstring and then to a boolean array based on the following c

Locate the position of the letter in the English alphabet (from 1 to 26).
Odd positions will be represented as 1 and even positions will be represented as 0.
Convert the represented positions to boolean values, …
Write a function that inserts a white space between every instance of a lower character followed immed

Examples
insertWhitespace("SheWalksToTheBeach") ➞ "She Walks To The Beach"

insertWhitespace("MarvinTalksTooMuch") ➞ "Marvin Talks Too Much"

insertWhitespace("TheGreatestUpsetInHistory") ➞ "Th …
Create a function that takes a string as an argument. The function must return a string containing 1s and
Someone has attempted to censor my strings by replacing every vowel with a `, lk* th*s`. Luckily, I've bee

Given a censored string and a string of the censored vowels, return the original uncensored string.

Example
uncensor("Whr dd my vwls g?", "eeioeo") ➞ "Where did my vowels go …
Create a function to perform basic arithmetic operations that includes addition, subtraction, multiplicatic

Here, we have 1 followed by a space, operator followed by another space and 2. For the challenge, we ar
Two players draw a pair of numbered cards so that both players can form a 2 digit number. A winner can

However, there is a rule where a player can swap any one of their cards with any one of the other player'
You go to a jewelry shop and try to find the most expensive piece of jewelry. You write down the name o

Create a function that gets the name of the piece of jewelry with the highest price and returns "The most

Examples
mostExpensive ({
  " …
Create a function that outputs the result of a math expression in words.

Examples
wordedMath("One plus one") ➞ "Two"

wordedMath("zero Plus one") ➞ "One"

wordedMath("one minus one") ➞ "Zero"

Notes
Expect only the operations plus and minus.
Expect to only get numbers and answers from 0 to 2.
The first letter of the answer …
Write a function that takes a positive integer num and calculates how many dots exist in a pentagonal sh

In the image below you can see the first iteration is only a single dot. On the second, there are 6 dots. On
You have cultivated a plant, and after three long months, the time has come to reap the fruits (or the flov

A plant is represented horizontally, from …
Given what is supposed to be typed and what is actually typed, write a function that returns the broken k

findBrokenKeys(correct phrase, what you actually typed)

Examples
findBrokenKeys("happy birthday", "hawwy birthday") → ["p"]

findBrokenKeys("starry night", "starrq light") → ["y", "n"]

f ...
You are given an input array of bigrams, and an array of words.

Write a function that returns true if every single bigram from this array can be found at least once in an a

Examples
canFind(["at", "be", "th", "au"], ["beautiful", "the", "hat"]) → true

canFind(["ay", "be", "ta", "cu"], ["maybe", "beta", "abet ...
Create a function that returns an Earned Run Average (ERA). An ERA is calculated by multiplying 9 by the

In baseball statistics, innings are represented with a fractional part of .1 (1/3) or .2 (2/3) to represent the
Create a function that converts Celcius to Fahrenheit and vice versa.

Examples
convert("35°C") → "95°F"

convert("19°F") → "-7°C"

convert("33") → "Error"

Notes
Round to the nearest integer.
If the input is incorrect, return "Error".
For the formulae to convert back and forth, check the Resources tab.
Your local bank has decided to upgrade its ATM machines by incorporating motion sensor technology. Th

Create a program that converts a customer's PIN number to its dance equivalent. There is one dance mo
Create a function that takes two numbers as arguments and return the LCM of the two numbers.

Examples
lcm(3, 5) → 15

lcm(14, 28) → 28

lcm(4, 6) → 12

Notes
Don't forget to return the result.

You may want to use the GCD function to make this a little easier.

LCM stands for least common multiple, the smallest multiple of bo …

Atticus has been invited to a dinner party, and he decides to purchase a bottle of wine. However, he has

Create a function that takes two "sorted" arrays of numbers and returns an array of numbers which are c

Examples

commonElements([-1, 3, 4, 6, 7, 9], [1, 3]) → [3]

commonElements([1, 3, 4, 6, 7, 9], [1, 2, 3, 4, 7, 10]) → [1, 3, 4, 7]

commonElements([1, 2, 2, 2, 3, 4, 5], [1, 2, 4, 5]) → [1, …

To further increase the statistical knowledge of your fight, count the number of times a certain adjective

Given an object that contains several adjectives as values, return a new object where you count the ocur

Examples

countNumberOfOccurrences({
  a: "moron",
  b: "scumbag",
  c: "moron …

Create a function that takes a number as an argument and returns n instances of the Fibonacci sequence

Fibonacci numbers: $F(n) = F(n-1) + F(n-2)$ with $F(0) = 0$ and $F(1) = 1$. So the easy explanation is: The next e

If you want to read more about this sequence, take a …

There are many different styles of music and many albums exhibit multiple styles. Create a function that

Examples

uniqueStyles([
  "Dub,Dancehall",
  "Industrial,Heavy Metal",
  "Techno,Dubstep",
  "Synth-pop,Euro-Disco",
  "Industrial,Tech …

Create a function that, given a string with at least three characters, returns an array of its:

Length.
First character.
Last character.
Middle character, if the string has an odd number of characters. Middle TWO characters, if the string has
Index of the second occurrence of the second charact …

Given a word, create an object that stores the indexes of each letter in an array.

Make sure the letters are the keys.
Make sure the letters are symbols.
Make sure the indexes are stored in an array and those arrays are values.

Examples
mapLetters("dodo") ➞ { d: [0, 2], o: [1, 3] }

mapLetters("froggy") ➞ { f: [0], r: [1], …
Write a function that takes an array of arrays and returns the value of all of the symbols in it, where each

\# = 5
O = 3
X = 1
! = -1
!! = -3
!!! = -5

An array of arrays containing 2 \#s, a O, and a !!! would equal (0 + 5 + 5 + 3 - 5) 8.

If the final score …
Create a function that takes numbers b, m, and n as arguments and returns the definite integral of the fu

Examples
integral(0, 2, 5) ➞ 3

integral(2, 4, 7) ➞ 279

integral(5, 9, 3) ➞ -530712

Notes
^ in the context of this challenge mea …
You can think of character classes as characters with special meaning. They are recognized as special wh

ES2018 added the s "dotAll" flag, which allo …
Using Camel Case (or camelCase) is where the first word is in lower case, and all words after it have their

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

Examples
camelCasing("Hello World") ➞ "helloWorld"

camelCasing("snake …
Create a RegExp myRegExp to test if a string is a valid pin or not.

A valid pin has:
Exactly 4 or 6 characters.
Only numerical characters (0-9).
No whitespace.

Examples
myRegExp.test("1234") ➞ true

myRegExp.test("45135") → false

myRegExp.test("89abc1") → false

myRegExp.test("900876") → true

myRegExp.test(" 4983") → fal …
Write a function that takes time t1 and time t2 and returns the numbers of hours passed between the tw

Examples
hoursPassed("3:00 AM", "9:00 AM") → "6 hours"

hoursPassed("2:00 PM", "4:00 PM") → "2 hours"

hoursPassed("1:00 AM", "3:00 PM") → "14 hours"

Notes
Time t1 will always be the starting time and t2, the endi …
Create a function that takes a single Hexadecimal number as an argument and returns the equivalent six-
In mathematics, primorial, denoted by "#", is a function from natural numbers to natural numbers simila

Create a function that takes an integer n and returns its primorial.

Examples
primorial(…
In each input array, every number repeats at least once, except for two. Write a function that returns the

Examples
returnUnique([1, 9, 8, 8, 7, 6, 1, 6]) → [9, 7]

returnUnique([5, 5, 2, 4, 4, 4, 9, 9, 9, 1]) → [2, 1]

returnUnique([9, 5, 6, 8, 7, 7, 1, 1, 1, 1, 1, 9, 8]) → [5, 6]

Notes
Keep the same o …
Create a function that takes a string and returns the first character that repeats. If there is no repeat of a

Examples
firstRepeat("legolas") → "l"

firstRepeat("Gandalf") → "a"

firstRepeat("Balrog") → "-1"

firstRepeat("Isildur") → "-1"

// Case sensitive "I" not equal to "i"

Notes
Tests are case …
Create a function to check if a given integer is a factorial of integer or not. The return value should be a b

Examples
isFactorial(2) → true
// 2 = 2 * 1 = 2!

isFactorial(27) → false

isFactorial(24) → true
// 24 = 4 * 3 * 2 * 1 = 4!

Notes
Input is a positive integer.
Alternatively, you can solve this with a recur …
Given a sentence as str, return true if any two adjacent words have this property: One word ends with a

Examples
vowelLinks("a very large appliance") → true

vowelLinks("go to edabit") → true

vowelLinks("an open fire") → false

vowelLinks("a sudden applause") → f …
Create a function to partition an array from left to right.

Examples
movingPartition([-1, -1, -1, -1])
→ [[[-1], [-1, -1, -1]], [[-1, -1], [-1, -1]], [[-1, -1, -1], [-1]]]

movingPartition([1, 2, 3, 4, 5])
→ [[[1], [2, 3, 4, 5]], [[1, 2], [3, 4, 5]], [[1, 2, 3], [4, 5]], [[1, 2, 3, 4], [5]]]

movingPartition([]) → []

Notes …
Create a function that takes a number n as an argument and checks whether the given number can be ex

Examples
consecutiveSum(9) → true
// 9 can be expressed as a sum of (2 + 3 + 4) or (4 + 5).

consecutiveSum(10) → true

// 10 can be expressed as a sum of 1 + 2 + 3 …
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"

Examples
encrypt("banana") → "0n0n …
Given a date, return how many days date is away from 2021 (end date not included). date will be in mm/

Examples
daysUntil2021("12/28/2020") → "3 days"

daysUntil2021("1/1/2020") → "366 days"

daysUntil2021("2/28/2020") → "308 days"

Notes
All given dates will be in the year 2020.
JavaScript has a beautiful built-in function sort that sorts an iterable, usually an array of numbers, sorting

Create a function that takes an array of integers as an argument and returns the same array in ascending
Create a function that takes an integer n and returns multiplication table of 1 to n numbers up to nth mu

Examples
multTable(2) → [
  [1, 2],
  [2, 4]
]

multTable(3) → [
  [1, 2, 3],

[2, 4, 6],
  [3, 6, 9]
]

multTable(5) ➡ [
 [1, 2, 3, 4, 5],
 [2, 4, 6, 8, 10],
 [3, 6, 9, 12, 15],
 [4, 8, 12, 16, 20],
 [5, 1 …
Create a function that returns true if smaller arrays can concatenate to form the target array and false ot

Examples
canConcatenate([[1, 2, 3, 4], [5, 6], [7]], [1, 2, 3, 4, 5, 6, 7]) ➡ true

canConcatenate([[2, 1, 3], [5, 4, 7, 6]], [7, 6, 5, 4, 3, 2, 1]) ➡ true

canConcatenate([[2, 1, 3], [5, 4, 7, 6, 7]], [1, 2, …
Write a function that takes a string input and returns the string in a reversed case and order.

Examples
invert("dLROW YM sI HsEt") ➡ "TeSh iS my worlD"

invert("ytInIUgAsnOc") ➡ "CoNSaGuiNiTY"

invert("step on NO PETS") ➡ "step on NO PETS"

invert("XeLPMoC YTiReTXeD") ➡ "dExtErIty cOmplEx"

Notes
No empty strings and will …
And who cursed the most in the fight between you and your spouse?

Given an object with three rounds, with nested objects as your scores per round, return a string of who c

  If you, return "ME!"
  If your spouse, return "SPOUSE!"
  If a draw, return "DRAW!"

Examples
determineWhoCursedTheMost({
 round1: …
Write a function that divides an array into chunks of size n, where n is the length of each chunk.

Examples
chunkify([2, 3, 4, 5], 2) ➡ [[2, 3], [4, 5]]

chunkify([2, 3, 4, 5, 6], 2) ➞ [[2, 3], [4, 5], [6]]

chunkify([2, 3, 4, 5, 6, 7], 3) ➞ [[2, 3, 4], [5, 6, 7]]

chunkify([2, 3, 4, 5, 6, 7], 1) ➞ [[2], [3], [4], [5], [6], …
lPaeesh le pemu mnxit ehess rtnisg! Oh, sorry, that was supposed to say: Please help me unmix these str

Somehow my strings have all become mixed up; every pair of characters has been swapped. Help me und

Examples
unmix("123456") ➞ "214365"

unmix("hTsii s aimex dpus rtni.g" …
The left shift operation is similar to multiplication by powers of two, thus, the process is repetitive and ca

Sample calculation using the left shift operator (<<):
10 << 3 = 10 * 2^3 = 10 * 8 = 80
-32 << 2 = -32 * 2^2 = -32 * 4 = -128
5 << 2 = 5 * 2^2 = 5 * 4 = 20

Write a recursive function that m …
You can think of character classes as characters with special meaning. They are recognized as special whe

Here are a list of the characters classes in JavaScript:
., \cX, \d, \D, \f, \n, \r, \s, \S, \t, \v, \w, \W, \0, \xhh, \uhhhh, \uhhhhh, [\b]

Extract the addresses from this string …
In this challenge, you are given an array and in turn, you must obtain a smaller array, following three step

Split the array into two parts of equal length. If the given array has an odd length, then you have to elimi
Sum each number of the first par …
You finally receive the entire stolen list document from the police. You need to sign at the end of the doc

You are given two arguments, one object with nested objects and a string that corresponds to your name
Create a function which counts how many lone 1s appear in a given number. Lone means the number do

Examples
countLoneOnes(101) ➞ 2

countLoneOnes(1191) ➞ 1

countLoneOnes(1111) ➞ 0

countLoneOnes(462) ➞ 0

Notes
Tests will include positive whole numbers only.

Create a function that returns true if there's at least one prime number in the given range (n1 to n2 (inclu

Examples
primeInRange(10, 15) ➞ true
// Prime numbers in range: 11, 13

primeInRange(62, 66) ➞ false
// No prime numbers in range.

primeInRange(3, 5) ➞ true
// Prime numbers in range: 3, 5

N ...
Your task, is to create N x N multiplication table, of size n provided in parameter.

For example, when n is 5, the multiplication table is:

1, 2, 3, 4, 5
2, 4, 6, 8, 10
3, 6, 9, 12, 15
4, 8, 12, 16, 20
5, 10, 15, 20, 25

This example will result in:

[[1, 2, 3, 4, 5], [2, 4, 6, 8, 10], [3, 6, 9, 12, 15], [4, 8, 12, 16, 20] ...
Mubashir needs your help to construct a building which will be a pile of n cubes. The cube at the bottom

Given the total volume m of the building, can you find the number of cubes n required for the ...
Create a function that takes a number and returns one digit that is the result of summing all the digits of

Examples
rootDigit(123) ➞ 6
// 1 + 2 + 3 = 6

rootDigit(999888777) ➞ 9

rootDigit(12387636365555555 ...
Write a function that returns true if two arrays, when combined, form a consecutive sequence. A consecu

Examples
consecutiveCombo([7, 4, 5, 1], [2, 3, 6]) ➞ true

consecutiveCombo([1, 4, 6, 5], [...
While useful, the modulo operator in JavaScript is not infallible when negative numbers are thrown into t

Examples

mod(-13, 64) → 51

mod(50, 25) → 0

mod(-6, 3) → 0

Notes
All test case …
We handle resolve callbacks with then, but what about reject callbacks? We have a catch function that v

Challenge
Write an error handler for the provided promise. Re-assign errorLog to the err …
You are given two arrays. The elements in arr1 threw a party and started to mix around. However, one of

Examples
missing([1, 2, 3, 4, 5, 6, 7, 8], [1, 3, 4, 5, 6, 7, 8]) → 2

missing([true, true, false, false, true], [false, true, false, true] → true
 …
Create a function that returns the sum of missing numbers.

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

sumMissingNumbers([10, 7, 5, 3, 1]) → 29

sumMissingNumbers([10, 20, 30, 40, 50, 60]) → 1575

Notes
The minimum and maximum value of the given array are the inclusive bounds of the numeric range …
Create a function which replaces all the x's in the string in the following ways:

Replace all x's with "cks" UNLESS:
The word begins with "x", therefore replace it with "z".
The word is just the letter "x", therefore replace it with "ecks".

Examples
xPronounce("Inside the box was a xylophone") → "Inside the bocks was a zyl …
In this challenge, you have to obtain a sentence from the elements of a given matrix. In the matrix, each

Given a matrix mtx, implement a function that returns the complete sentenc …
Given an array nums where each integer is between 1 and 100, return a sorted array containing only dup

Examples
duplicateNums([1, 2, 3, 4, 3, 5, 6]) → [3]

duplicateNums([81, 72, 43, 72, 81, 99, 99, 100, 12, 54]) ➞ [72, 81, 99]

duplicateNums([1, 2, 3, 4, 5, 6, 7, 8, 9, 10]) ➞ null

 …
In probability theory, a probability matrix is a matrix such that:
The matrix is a square matrix (same number of rows as columns).
All entries are probabilities, i.e. numbers between 0 and 1.
All rows add up to 1.

The following is an example of a probability matrix:
[
  [0.5, 0.5, 0.0],
  [0.2, 0.5, 0.3],
  [0.1, 0.2, 0.7]
 …
You are given an array of strings consisting of grocery items, with prices in parentheses. Return an array

Examples
getPrices(["ice cream ($5.99)", "banana ($0.20)", "sandwich ($8.50)", "soup ($1.99)"]) ➞ [5.99, 0.2, 8.50,

getPrices(["salad ($4.99)"]) ➞ [4.99]

Notes
See if you can use RegE …
Mubashir needs your help to find out next happy year.

A Happy Year is the year with only distinct digits. Create a function that takes an integer year and returns

Examples
happyYear(2017) ➞ 2018
// 2018 has all distinct digits

happyYear(1990) ➞ 2013

happyYear(2021) ➞ 2031

Notes
N/A
Abigail and Benson are playing Rock, Paper, Scissors.

Each game is represented by an array of length 2, where the first element represents what Abigail played

Given a sequence of games, determine who wins the most number of matches. If they tie, output "Tie".

R stands …
Create a function that finds all elements in the given array, such that each element is greater than all elem

Examples
leader([2, 3, 20, 15, 8, 3]) → [20, 15, 8, 3]
// Note that, 20 is greater than all the elements to it's
// right side, similarly 15 and so on.

leader([2, 3, 20, 15, 8, 25, 3]) → [25 …
Unfair hurdles are hurdles which are either too high, or way too close together.

Create a function which takes in an array of strings, representing hurdles, and returns whether or not the
At least 4 characters tall.
Strictly less than 4 spaces apart.

Exa …
Given an array of words, return the longest word which can fit on a 7 segment display.

Image of a 7 segment display

Letters which do not fit on a 7 segment display are K, M, V, W and X.
Therefore, do not count words which include these letters.

Examples
longest7SegmentWord(["knighthood", "parental", "fridge", "clingfilm"] …
For this challenge, forget how to add two numbers together. The best explanation on what to do for this

Alternative Text

Examples
memeSum(26, 39) → 515
// 2+3 = 5, 6+9 = 15
// 26 + 39 = 515

memeSum(122, 81) → 1103
// 1+0 = 1, 2+8 = 10, 2+1 = 3
// 122 + 81 = 1103

memeSum(1222, 30277) → 31499

Notes
N/A
Create a function that takes in n, a, b and returns the number of values raised to the nth power that lie i

Examples
powerRanger(2, 49, 65) → 2
// 2 squares (n^2) lie between 49 and 65, 49 (7^2) and 64 (8^2)

powerRanger(3, 1, 27) → 3

// 3 cubes (n^3) lie between 1 and 27, 1 (1^3), 8 (2^3) and …
Create a function that reorders the digits of each numerical element in an array based on ascending (asc)

Examples
reorderDigits([515, 341, 98, 44, 211], "asc") → [155, 134, 89, 44, 112]

reorderDigits([515, 341, 98, 44, 211], "desc") → [551, 431, 98, 44, 211]

reorderDigits([63251, 78221], "asc" …
Create a function that takes an array of objects like { name: "John", notes: [3, 5, 4] } and returns an array

If student has no notes (an empty array) then let's assume topNote: 0.

Examples
getStudentsWithNamesAndTopNotes([
  { "name": "John", "notes": [3, 5, 4] },
  { "name": …
Given an array and chunk size "n", create a function such that it divides the array into many subarrays wh

Examples
chunk([1, 2, 3, 4], 2) → [
  [1, 2], [3, 4]
]

chunk([1, 2, 3, 4, 5, 6, 7], 3) → [
  [1, 2, 3], [4, 5, 6], [7]
]

chunk([1, 2, 3, 4 ,5], 10) → [
  [1, 2, 3, 4, 5]
]

Not …
Remember the game Battleship? Ships are floating in a matrix. You have to fire torpedos at their suspect

Create a function that takes an array of arrays (matrix) and a coordinate as a string. If the coordinate con
A number n is apocalyptic if 2^n contains a string of 3 consecutive 6s (666 being the presumptive "numbe

Create a function that takes a number n as input. If the number is apocalyptic, find the index of 666 in 2^
Given a string, return a sorted array of words formed from the first three letters, then the next three lett

Worked Example
threeLetterCollection("edabit") → ["abi", "bit", "dab", "eda"]
// 1st word: "eda"
// 2nd word: "dab"
// 3rd word: "abi"
// 4th word: "bit"

// Remember to sort the array!

Exam …
You are given two values a and b of identical type: numbers, strings or arrays. The result will be:
The sum of a and b if the parameters are numbers.
   a = 1 | b = 1 ➞ Result = 2
The join in a single string of a and b if the parameters are strings.
   a = "1" | b = "1" ➞ Result = "11"
The concatenation of the values of a …
Create a function that takes an amount of monetary change (e.g. 47 cents) and breaks down the most eff

Coin	Value
Penny	0.01
Nickel	0.05
Dime	0.10
Quarter	0.25

Examples
makeChange(4 …
Given two integers a and b, return how many times a can be halved while still being greater than b.

Examples
halveCount(4666, 544) ➞ 3
// (4666 -> 2333 -> 1166.5 -> 583.25)

halveCount(466, 54) ➞ 3
// (466 -> 233 -> 116.5 -> 58.25)

halveCount(1324, 98) ➞ 3
// (1324 -> 662 -> 331 -> 165.5)

halveCount(624, 8) ➞ 6
// (624 -> …
Given a string of letters in the English alphabet, return the letter that's missing from the string. The missir

If there are no missing letters in the string, return "No Missing Letter".

Examples
missingLetter("abdefg") ➞ "c"

missingLetter("mnopqs") ➞ "r …
Create a recursive function that determines whether a word is a palindrome or not.

Examples
isPalindrome("madam") ➞ true

isPalindrome("adieu") → false

isPalindrome("rotor") → true

Notes
All inputs are in lowercase.
You are expected to solve this challenge via recursion.
You can check on the Resources tab for more details …
Create a left rotation and a right rotation function that returns all the left rotations and right rotations of

Examples
leftRotations("abc") → ["abc", "bca", "cab"]

rightRotations("abc") → ["abc", "cab", "bca"]

leftRotations("abcdef")
→ ["abcdef", "bcdefa", "cdefab", "defabc", "efabcd", "fabcde"]

rightRotation …
Given a list of words in the singular form, return a set of those words in the plural form if they appear mo

Examples
pluralize(["cow", "pig", "cow", "cow"]) → ["cows", "pig"]

pluralize(["table", "table", "table"]) → ["tables"]

pluralize(["chair", "pencil", "arm"]) → ["chair", "pencil", "arm"]

No …
Mubashir and his friend Matt found some gold piles. They decided to follow simple rules to distribute the
Gold will be divided into n piles.
Each person will choose bigger gold pile either from far left or far right.
If the weight of both piles is equal then the person will choose left pile.

Help them by cr …
Mubashir needs your help to count a specific digit in an array.

You have to create a function that takes two integers n and d and makes an array of squares of all numbe

Examples
countDigits(10, 1) → 4
// Squared array from 0 to 10 = [0, 1, 4, 9, 16, 25, 36 …
Groups and ranges indicate groups and ranges of expression characters. Named capturing groups match

To extract the United States area code from a phone number, we c …
In (American) Football, a team can score if they manage to kick a ball through the goal (i.e. above the cro

Create a function that returns true if the ball 0 goes through the goal. You will be given an array of arrays

Examples
isGoalScored([
 [" #   # "],
 [" # 0 # "],
 [" #   …
Write a function that creates an array of values found within all given arrays. The first array will serve as t
Create a function that will find all primes below a given number. Return the result as an array.

Examples
primesBelowNum(5) → [2, 3, 5]

primesBelowNum(10) → [2, 3, 5, 7]

primesBelowNum(20) → [2, 3, 5, 7, 11, 13, 17, 19]

Notes
If n is a prime, include it in the array.
Time to call your lover to inform what he/she lost in the burglary.

Given an object of the stolen objects, return the 3rd most expensive item on the list. If that is not possibl

Examples
thirdMostExpensive({}) → false

thirdMostExpensive({ piano: 100, tv: 200 }) → false

 …
You are given two inputs:

An array of abbreviations.
An array of words.

Write a function that returns true if each abbreviation uniquely identifies a word, and false otherwise.

Examples
uniqueAbbrev(["ho", "h", "ha"], ["house", "hope", "happy"]) → false
// "ho" and "h" are ambiguous and can identify either "house" or "hop …
In Digital Cipher, encoding is done by the simple addition of numbers in the key and the corresponding ch

Create a function that takes two arguments; a positive integer and a string and returns an encoded array

Assign a unique number to each letter of the alphabet.

 a b …
Create a function that expands a number into a string as shown below:

25 → "20 + 5"
70701 → "70000 + 700 + 1"
685 → "600 + 80 + 5"

Examples
expandedForm(70304) → "70000 + 300 + 4"

expandedForm(1037903) → "1000000 + 30000 + 7000 + 900 + 3"

expandedForm(802539) → "800000 + 2000 + 500 + 30 + 9"

Notes
N/A
Write a function that takes time t1 and time t2 and returns the number of hours passed between the two

Examples
hoursPassed("3:00 AM", "9:00 AM") → "6 hours"

hoursPassed("2:00 PM", "4:00 PM") → "2 hours"

hoursPassed("1:00 AM", "3:00 PM") → "14 hours"

Notes
Time t1 will always be the starting time and t2, the endin …
Create a function that takes a number of a guitar string and the number of the fret and returns the corres

Check the Resources Tab, for the correct frequencies per string.
The formula to calculate the frequency is: String Frequency * 2^(fret/12).
Round the frequency to the nearest hundreth.
For …
Write a function that takes a list of hours and returns the total weekly salary.

The input list hours is listed sequentially, ordered from Monday to Sunday.
A worker earns $10 an hour for the first 8 hours.
For every overtime hour, he earns $15.
On weekends, the employer pays double the usual rate, regardless how many hours …
Given an array of unknown length, but with an even amount of elements (numbers), copy the half with th

Examples
balanced([1, 2, 4, 6, 3, 1]) → [6, 3, 1, 6, 3, 1]

balanced([88, 3 …
It's a Pokemon battle! Your task is to calculate the damage that a particular move would do using the foll

damage = 50 * (attack / defense) * effectiveness

attack = your attack power
defense = the opponent's defense
effectiveness = the effectiveness of the attack based on th …
Create a function that takes an array and returns a new array containing only prime numbers.

Examples
filterPrimes([7, 9, 3, 9, 10, 11, 27]) ➞ [7, 3, 11]

filterPrimes([10007, 1009, 1007, 27, 147, 77, 1001, 70]) ➞ [10007, 1009]

filterPrimes([1009, 10, 10, 10, 3, 33, 9, 4, 1, 61, 63, 69, 1087, 1091, 1093, 1097]) ➞ [1009, 3, …
then() functions return a new promise, different from the original. Since catch functions are actually ther

```
new Promise((resolve, reject) => {
   console.log("Initial");
   resolve();
})
.then(() => {
   …
```
A ship has to transport cargo from one place to another, while picking up cargo along the way. Given the

 "S" means 50 cargo space.
 "M" means 100 cargo s …
Create a function that takes in a sentence and returns the average length of each word in that sentence.

Examples
averageWordLength("A B C.") ➞ 1.00

averageWordLength("What a gorgeous day.") ➞ 4.00

averageWordLength("Dude, this is so awesome!") ➞ 3.80

Notes
Ignore punctuation when …
You will be given a string of characters containing only the following characters: ():

Create a function that returns a number based on the number of sad and smiley faces there is.
The happy faces :) and (: are worth 1.
The sad faces :(and): are worth -1.

Working Example
happinessNumber(":):(") ➞ -1
// The first 2 charac …
Create a function that converts dash/underscore delimited words into camel casing. The first word withir

Examples
toCamelCase("A-B-C") ➞ "ABC"

toCamelCase("the-stealth-warrior") ➝ "theStealthWarrior"

toCamelCase("TheStealthWarrior") ➝ "TheStealthW …
In this challenge, you have to find the numeric value of a given word. Instead of the usual sum of Unicode

Given a word, implement a …
Write a program to find all the prime factors of a given number. The program must return an array conta

Examples
primeFactorize(25) ➝ [5, 5]

primeFactorize(19) ➝ [19]

prime …
Create a function that builds a staircase given the height and the type of building block.

Examples
buildStaircase(3, "#") ➝ [
 ["#", "", ""],
 ["#", "#", "_"],
 ["#", "#", "#"]
]

buildStaircase(4, "#") ➝ [
 ["#", "", "", "_"],
 ["#", "#", "", ""],
 ["#", "#", "#", "_"],
 ["#", "#", "#", "#"]
]

buildStaircase(3, "A …
In linear algebra, the transpose of a matrix is an operator which flips a matrix over its diagonal; that is, it

Create a function that takes a 2D array (matrix A) and returns a 2D array (matrix A^T).

Examples
makeTranspos …
Create a function to check if a candidate is qualified in an imaginary coding interview of an imaginary tecl

The criteria for a candidate to be qualified in the coding interview is:

The candidate should have complete all the questions.
The maximum time given to complete the interview is 120 minutes.
The maximum ti …
Create a function that returns an array that expands by 1 from 1 to the value of the input, and then redu

Examples
diamondArrays(1) ➞ [[1]]

diamondArrays(2) ➞ [[1], [2, 2], [1]]

diamondArrays(5) ➞ [[1], [2, 2], [3, 3, 3], [4, 4, 4, 4], [5, 5, …
This challenge is based on the classic videogame "Snake".

Assume the game screen is an n * n square, and the snake starts the game with length 1 (i.e. just the hea

For example, if n = 7 the game looks something like this:

In this version of the game, the length of the snake doubles eac …
Given two integers as arguments, create a function that finds the largest prime within the range of the tv

Examples
fatPrime(2, 10) ➞ 7
// range [2, 3, 4, 5, 6, 7, 8, 9, 10] and the largest prime is 7.

fatPrime(10, 2) ➞ 7
// [10, 9, 8, 7, 6, 5, 4, 3, 2] and the largest prime is 7.

fatPrime(4, 24) ➞ 23
// range …
Write a function that pairs the first number in an array with the last, the second number with the second

Examples
pairs([1, 2, 3, 4, 5, 6, 7]) ➞ [[1, 7], [2, 6], [3, 5], [4, 4]]

pairs([1, 2, 3, 4, 5, 6]) ➞ [[1, 6], [2, 5], [3, 4]]

pairs([5, 9, 8, 1, 2]) ➞ [[5, 2], [9, 1], [8, 8]]

pairs([]) ➞ []

Notes
If t …
Create a function that finds a target number in a list of prime numbers. Implement a binary search algorit

Examples
var primes = [2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, …
According to the lodash documentation, _.dropwWhile Creates a slice of array excluding elements dropp

This is different than filter because it checks each item until the condit …
Create a function that takes an array of numbers and returns the sum of all prime numbers in the array.

Examples

sumPrimes([1, 2, 3, 4, 5, 6, 7, 8, 9, 10]) ➞ 17

sumPrimes([2, 3, 4, 11, 20, 50, 71]) ➞ 87

sumPrimes([]) ➞ 0

Notes
Given numbers won't exceed 101.
A prime number is a number which has exactly two divisors (1 an …
If today was Monday, in two days, it would be Wednesday.

Create a function that takes in an array of days as input and the number of days to increment by. Return

Examples
afterNDays(["Thursday", "Monday"], 4) ➞ ["Monday", "Friday"]

afterNDays(["Sunday", "Sunday", "Sunday …
Create a function that takes in a sentence and a character to find. Return an object of each word in the se

Examples
findOccurrences("Hello World", "o") ➞ {
  "hello" : 1,
  "world" : 1
}

findOccurrences("Create a nice JUICY function", "c") ➞ {
  "create" : 1, …
Create a function that takes two integers, num and n, and returns an integer which is divisible by n and is

Examples
roundNumber(33, 25) ➞ 25

roundNumber(46, 7) ➞ 49

roundNumber(133, 14) ➞ 140

Notes
n will always …
Create a function that finds how many prime numbers there are, up to the given integer.

Examples
primeNumbers(10) ➞ 4
// 2, 3, 5 and 7

primeNumbers(20) ➞ 8
// 2, 3, 5, 7, 11, 13, 17 and 19

primeNumbers(30) ➔ 10
// 2, 3, 5, 7, 11, 13, 17, 19, 23 and 29

Notes
N/A
Given num as input, return an array with all primes up to num included.

Alternative Text

Examples
eratosthenes(1) ➔ []

eratosthenes(10) ➔ [2, 3, 5, 7]

eratosthenes(20) ➔ [2, 3, 5, 7, 11, 13, 17, 19]

eratosthenes(0) ➔ []

Notes
Check the Resources tab for info on the meaning of "Eratosthenes".
Try solving this challenge …
Create a program that converts a phone number with letters to one with only numbers.

Number	Letter
0	none
1	none
2	ABC
3	DEF
4	GHI
5	JKL
6	MNO
7	PQRS
8	TUV
9	WXYZ

Examples
textToNum("123-647-EYES") ➔ "123-647-3937"

textToNum("(325)444-TEST") ➔ "(325)444-8378"

textToNum("653-TRY-THIS") ➔ "6 …
Quantifiers indicate numbers of characters or expressions to match.

x* matches the preceding item "x" 0 or more times.

A ghost booooed.match(/bo*/) ➔ "boooo"

x+ matches the preceding item "x" 1 or more times. Equivalent to {1,}.

caaaaaaandy.match(/a+/) → "aaaaaa"

x? matches the preceding item "x" 0 or 1 times. If u …
Your function will get an array with a number sequence. However, one item will be missing. It's your job

To illustrate, given the array [1, 3, 4, 5], 2 is missing so the output must be 2.

Examples
missing([1, 3, 4, 5]) → 2

missing([2, 4, 6, 8, 10, 14, 16]) → 12

missing([1.5, 2, …
One of the pratical use cases for currying a function in JavaScript is to reduce duplication:

function add5(num) {
  return num + 5
}

function add6(num) {
  return num + 6
}

add5(2) // 7
add6(3) // 9

Instead of having to create a new function for every new number we can just create a function that retur
Create a function that takes a value as an argument and returns the type of this value. You should get the

Examples
realType(1) → "number"

realType("a") → "string"

realType(true) → "boolean"

realType([]) → "ar …
Create a function that returns the sum of missing numbers from the given array.

Examples
sumMissingNumbers([4, 3, 8, 1, 2]) → 18
// 5 + 6 + 7 = 18

sumMissingNumbers([17, 16, 15, 10, 11, 12]) → 27

```
// 13 + 14 = 27
```

```
sumMissingNumbers([1, 2, 3, 4, 5]) → 0
// No Missing Numbers (i.e. all numbers in [1, 5] are present in the lis …
```

Create a function addLetters that takes a list/array of letters a, and returns the "sum" of them.

To add two letters, take their number value, add them together, and convert it back together. For examp

 …

Write a function that swaps the first pair (1st and 2nd characters) with the second pair (3rd and 4th chara

Examples
swapTwo("ABCDEFGH") → "CDABGHEF"

swapTwo("AABBCCDDEEFF") → "BBAADDCCFFEE"

swapTwo("munchkins") → "ncmuinhks"

swapTwo("FFGGHHI") → "GGFFHHI"

Notes
Keep leftover string …

Write a function that returns the closest chapter to the current page you are at. If two chapters are simila

Examples
closestToPage({
  "Chapter 1" : 1,
  "Chapter 2" : 15,
  "Chapter 3" : 37
}, 10) → "Chapter 2"

closestToPage({
  "New Beginnings" : 1,
  "Strange Developments …

Given a common phrase, return false if any individual word in the phrase contains duplicate letters. Retu

Examples
noDuplicateLetters("Fortune favours the bold.") → true

noDuplicateLetters("You can lead a horse to water, but you can't make him drink.") → true

noDuplicateLetters("Look before you leap.") → …

A Collatz sequence is generated by repeatedly applying the following rules to an integer and then to each

If even: divide by 2.
If odd: multiply by 3, then add 1.

The Collatz algorithm has been tested and found to always reach 1 for all positive integers.

Create a function that, when given two p …
Create a function that takes an arr and returns the sum of the numbers between two "1"s.

Examples
spaceApart([1, 0, 1, "1", 4, 3, 2, 3, 2, "1"]) ➞ 14

spaceApart(["1", 9, 20, 38, "1"]) ➞ 67

spaceApart([3, 2, 9, "1", 0, 0, -1, "1"]) ➞ "invalid"

Notes
Return "invalid" if:
  A negative number exists inside arr.
  The number …
Given a Date() object, return the date from three days prior as a string: "2016-01-19".

Examples
threeDaysAgo(new Date(2018, 0, 1)) ➞ "2017-12-29"

threeDaysAgo(new Date(2015, 5, 17)) ➞ "2015-06-14"

threeDaysAgo(new Date(1965, 3, 15)) ➞ "1965-04-12"

Notes
Your function must work in the past, present and future.
JavaScript …
Create a function that takes four arrays as arguments and returns a count of the total number of identica

Examples
countIdenticalArrays([0, 0, 0], [0, 1, 2], [0, 0, 0], [2, 1, 0]) ➞ 2

countIdenticalArrays([0, 1, 0], [0, 1, 2], [0, 2, 0], [2, 1, 0]) ➞ 0

countIdenticalArrays([0, 1, 2], [0, 1, 2], [0, 1, 2], [2, 1, …
Create a function that takes an array. This array can have all kinds of items, even other arrays. The functi

If the item is an Array, include each item in it and the following still apply:
If the item is a Function, include th …
Write a function that splits a string into substrings of size n, adding a specified delimiter between each of

Examples
splitAndDelimit("bellow", 2, "&") ➞ "be&ll&ow"

splitAndDelimit("magnify", 3, ":") ➞ "mag:nif:y"

splitAndDelimit("poisonous", 2, "~") ➞ "po~is~on~ou~s"

Notes
N/A
Given a range of years as a string, return the number of leap years there are within the range (inclusive).

Examples
numLeapYears("1980-1984") ➞ 2
// 1980 and 1984 are leapyears.

numLeapYears("2000-2020") ➞ 6

numLeapYears("1600-2000") ➞ 98

Notes
Remember that a hyphen separates the years.
Check the Resources tab for help …
Create a function that determines whether or not a player is holding a Full House in their hand. A hand is

To illustrate: ["A", "A", "A", "K", "K"] would be a Full House, since the player holds 3 aces and 2 kings.

Examples …
Create a function that takes an array of any length. Modify each element (capitalize, reverse, hyphenate)

Examples
editWords(["new york city"]) ➞ ["YTIC KR-OY WEN"]

editWords(["null", "undefined"]) ➞ ["LL-UN", "DENIF-EDNU"]

editWords(["hello", "", "world"]) ➞ ["OLL-EH", "-", "DLR-OW"]

editWords([""]) ➞ ["-"]

Notes
Inpu …
Create a function that returns the characters from an array or string r on odd or even positions, dependir

Examples
charAtPos([2, 4, 6, 8, 10], "even") ➞ [4, 8]
// 4 & 8 occupy th …
Extend the global Array object to have an instance method named compact() which returns a copy of the

Examples
[1, 2, 2, 3, 4, 4, 5].compact() ➞ [1, 2, 3, 4, 5]

[true, false, true, false].compact() ➞ [true, false]

[0, "hello", undefine …
The central tendency measures (mean, mode and median) sometimes aren't enough descriptives in a dat
Groups and ranges indicate groups and ranges of expression characters. Non-capturing groups matches

Keep in mind that capturing groups have a performance penalty. If you don't need the matched substring

 …
One of the fun parts of JavaScript is that you can extend all the standard types by extending their prototy
Create a function that returns the nth catalan number.In combinatorial mathematics, the Catalan numbe
You may run into some old asynchronous API that requires you to pass in a callback. Take the setTimeout

setTimeout(() => saySomething("1 second passed"), 1000)

What if an error occured in the saySomething() function. How could you handle it? Wrap it with a Promis

There are some elements missing i …
Create a Circle() constructor that takes the radius as a single argument and has the following properties a

.radius
.diameter
.getC() (get circumference)
.getA() (get area)

Instantiate this constructor with two circles:

c1 has radius 3
c2 has radius 5

For example, if I used the Circle constructor to instantiat …
Write a function that takes two arrays (arr1 and arr2) and an int n, and returns true if the second array is

Examples
circularShift([1, 2, 3, 4], [3, 4, 1, 2], 2) → true

circularShift([1, 1], [1, 1], 6) → true

circularShift([0, 1, 2, 3, 4, 5], [3, 4 …
Given two strings, return a string containing only the letters shared between the two.

Examples
sharedLetters("house", "home") → "eho"

sharedLetters("Micky", "mouse") → "m"

sharedLetters("house", "villa") → ""

NotessharedLetters

If none of the letters are shared, return an empty string.
The function should be case insens …
Given an integer, create a function that returns the next prime. If the number is prime, return the numbe

Examples
nextPrime(12) ➞ 13

nextPrime(24) ➞ 29

nextPrime(11) ➞ 11
// 11 is a prime, so we return the number itself.

Notes
N/A
The insurance guy tells you he needs an updated list of the stolen goods, and surely only to annoy you, h

Given an object with the stolen items, return a new object with the list in reverse alphabetical order.

Examples
{ c: 100, a: 50, b: 10, d: 50 } ➞ { d: 50, c: 100, b: 10, a: 50 } …
The fight between you and your spouse is over. Based on your perception of how the fight went, determi

Given an object with three rounds, with nested objects as your points per round, determine the winner b
Create a function that takes an array of increasing letters and return the missing letter.

Examples
missingLetter(["a", "b", "c", "e", "f", "g"]) ➞ "d"

missingLetter(["O", "Q", "R", "S"]) ➞ "P"

missingLetter(["t", "u", "v", "w", "x", "z"]) ➞ "y"

missingLetter(["m", "o"]) ➞ "n"

Notes
Tests will always have exactly one le …
Create a function that takes an integer array and return the biggest between positive sum, negative sum,

arr = [1,2,3,4,0,0,-3,-2], the function has to return 10, because:
Positive sum = 1+2+3+4 = 10
Negative sum = (-3)+(-2) = -5
0s count = 2 (there are two zero …
There are three cups on a table, at positions A, B, and C. At the start, there is a ball hidden under the cup

Image of cups where ball is under middle cup

However, I perform several swaps on the cups, which is notated as two letters. For example, if I swap the

Sadly, the mathematical world is biased in favor of square matrices. As such, this challenge will help recta

For example, for the matrix:

[
  [1, 2],
  [3, 4],
  [5, 6]
]

This can be done by padding it with a column of zeroes on the right to get:

[
  [1, 2, 0],
  [3, 4, 0],
  [5, 6, …
A number/string is a palindrome if the digits/characters are the same when read both forward and backw

Decimal only. if only n is a palindrome.
Binary only. if only the …
Create a function which takes in an encoded string and returns an object according to the following exam

Examples
parseCode("John000Doe000123") ➡ {
  firstName: "John",
  lastName: "Doe",
  id: "123"
}

parseCode("michael0smith004331") ➡ {
  firstName: "michael",
  lastName: "smith",
  id: "4331"
}

parseCode("Thomas00L …
A number is Zygodrome if it can be partitioned into clusters of repeating digits with a length equals or gre

Given a non-negative integer num, implement a function that returns tru …
Mubashir can talk with monkeys. You can also learn their simple language.

Create a function that takes a string txt and returns the string in monkeys language. You have to figure ou

Examples
monkeyTalk("Mubashir Hassan") ➡ "Ook ook."

monkeyTalk("Hello") ➡ "Ook."

monkeyTalk("Matt") ➞ "Ook. …
Create a function that takes a string (the string to truncate) and a number (the maximum length of the tr

Examples
truncate("Lorem ipsum dolor sit amet.", 11) ➞ "Lorem ipsum"

truncate("Lorem ipsum dolor sit amet.", 16) ➞ "Lorem ipsum"

trunca …
Traditional safes use a three-wheel locking mechanism, with the safe combination entered using a dial or
Create a function that returns the smallest number of letter removals so that two strings are anagrams o

Examples
minRemovals("abcde", "cab") ➞ 2
// Remove "d", "e" to make "abc" and "cab".

minRemovals("deafk", "kfeap") ➞ 2
// Remove "d" and "p" from the first and second word, respectively.

minRemovals("acb", …
Greed is a dice game played with five six-sided dice. Your mission is to score a throw according to these r

 Three 1's => 1000 points
 Three 6's => 600 points
 Three 5's => 500 points
 Three 4's => 400 points
 Three 3's => 300 points
 Three 2's => 200 points
 One 1 => 100 points
 One 5 => 50 point

See …
Create a function based on the input and output. Look at the examples, there is a pattern.

Examples
secret(24) ➞ 8

secret(42) ➞ 8

secret(15) ➞ -4

secret(52) ➞ 15

Notes
num >= 10 and num <= 52
Math.pow, * and - can be helpful.

Loves me, loves me not is a traditional game in which a person plucks off all the petals of a flower one by

Given a number of petals, return a string which repeats the phrases "Loves me" and "Loves me not …
Create a function which returns how many Friday 13ths there are in a given year.

Examples
howUnlucky(2020) ➞ 2

howUnlucky(2026) ➞ 3

howUnlucky(2016) ➞ 1

Notes
Check Resources for some helpful tutorials on the JavaScript Date object.
Hermione has come up with a precise formula for determining whether or not a phrase was ssspoken by

Each word in a sssentence must contain either:

Two or more consecutive instances of the letter " …
The volume of a spherical shell is the difference between the enclosed volume of the outer sphere and th

Volume of Inner Sphere Formula

Create a function that takes r1 and r2 as arguments and returns the volume of a spherical shell rounded t

Spherical Shell Im …
A positive number's population is the sum of 1's in its binary representation.

An evil number has an even numbered population.
An odious number has an odd numbered population.
A number is pernicious if its population is a prime number.

Create a function that takes a number as an argument and returns a sorted array of all i …
Create a function that takes a string and returns the sum of vowels, where some vowels are considered r

Vowel	Number
A	4
E	3
I	1
O	0

Examples
sumOfVowels("Let\'s test this function.") ➞ 8

sumOfVowels("Do I get the correct output?") ➞ 10

sumOfVowels("I love edabit!") ➝ 12

Notes
Vowels are case …
You are in the process of creating a chat application and want to add an anonymous name feature. This a

Create a function that determines if the array of users is mapped to an array of ano …
When two numbers are added together, the strange Lunar arithmetic is used on the Moon. The Lunar su

2 4 6 +
3 1 7 =

3 4 7

// 3 > 2 | 4 > 1 | 7 > 6

1 3 4 …
A point on the screen (pt1) wants to move a certain distance (dist) closer to another point on the screen
In this challenge, you are given a date and you have to determine the correspondent season in a certain l

You have to use the ranges given by the meteorological seasons definition, accordingly to the following t

Start	End	North Hemisphere	South Hemisphere
March, 1	May …

Create a function that returns the number of times a character appears in each word in a sentence. Treat

Examples
charAppears("She sells sea shells by the seashore.", "s")
➝ [1, 2, 1, 2, 0, 0, 2]
// "s" shows up on …
The built-in javascript Promise object has several methods you can use to compose your asynchronous o

var original = Promise.resolve(33)
var cast = Promise.resolve(original)
cast.then(function(value) {
  console.log('value: ' + value)
})

So what i …
For each number in an array, check if that number is greater than the sum of all numbers that appear bef

Examples
greaterThanSum([2, 3, 7, 13, 28]) ➝ true

// 3 > 2 = true
// 7 > 2 + 3 = true

// 13 > 2 + 3 + 7 = true
// 28 > ...
Create a function which validates whether a given array alternates between positive and negative numbe

Examples
alternatePosNeg([3, -2, 5, -5, 2, -8]) → true

alternatePosNeg([-6, 1, -1, 4, -3]) → true

alternatePosNeg([4, 4, -2, 3, -6, 10]) → false

Notes
 Lists can be of any length.
 It doesn't matter if an array begin ...
Create a function that takes the width, height and character and returns a picture frame as a matrix.

Examples
getFrame(4, 5, "#") → [
 ["####"],
 ["# #"],
 ["# #"],
 ["# #"],
 ["####"]
]
// Frame is 4 characters wide and 5 characters tall.

getFrame(10, 3, "*") → [
 ["**"],
 ["*   *"],
 ["**"]
]
// Frame is ...
Your open-plan office building has a scrolling message screen on the far wall. One day, you notice that th

Examples
m ...
Create a function that takes an array of "mostly" numbers and returns the total amount of missing numb

Examples
sumOfMissingNums(["1", "3", "5", "7", "9"]) → 4
// 1+1+1+1

sumOfMissingNums(["7", "3", "1", "9", "5"]) → 4

sumOfMissingNums(["1", "5" ...
The Recamán Sequence is a numeric sequence that starts always with 0. The position of a positive intege

For every number to find, two variables are considered: the value of the last element of the sequence (la
Write a function that repeats the shorter string until it is equal to the length of the longer string.

Examples
lengthen("abcdefg", "ab") → "abababa"

lengthen("ingenius", "forest") → "forestfo"

lengthen("clap", "skipping") → "clapclap"

Notes
Both strings will differ in length.
Both strings will contain at least one chara …
In this challenge, you must think about words as elastics. What happens when do you tend an elastic app

If the word has an odd length, …
Write a function that returns true if you can partition an array into one element and the rest, such that th

Examples
canPartition([2, 8, 4, 1]) → true
// 8 = 2 x 4 x 1

canPartition([-1, -10, 1, -2, 20]) → false

canPartition([-1, -20, 5, -1, -2, 2]) …
This problem is a continuation of Uno Part 1 (although you don't need to complete that problem to comp

It's your turn to play again. Create a function that takes as its arguments (1) your hand (an array of cards)

One of …
Given an array of five values, calculate the average star rating, rounded to two decimal places. The array

Return the average score in [brackets], followed by a space and aster …
Create a function that returns true if two lines rhyme and false otherwise. For the purposes of this exerci

Examples
doesRhyme("Sam I am!", "Green eggs and ham.") → true

doesRhyme("Sam I am!", "Green eggs and HAM.") → true
// Capitalization an …
Mubashir needs your help to find out Increasing and Decreasing numbers for a given range.

Increasing Numbers
Numbers whose digits, when read from left to right, are never less than the previous digit. See below sor

        1111
      123456

125788999

Decreasing Numbers
Numbers whose digits, when read fr …
Write a regular expression that checks if a string is a valid initial. Valid initials either look like (ex. for Char

C. B.
C. M. B.

Rules for a valid initial:

Each letter must be upper case.
Each letter must be immediately followed by a period.
There must be exactly one space separating each letter-perio …
This is a reverse coding challenge. Normally you're given explicit directions with how to create a function

Your task is to create a function that, when fed the inputs below, produce the sample outputs shown.

Examples
832 …
Create a function that sums up all the elements in the array recursively. The use of the array's built-in rec

Examples
recurAdd([1, 2, 3, 4, 10, 11]) ➞ 31

recurAdd([-3, 4, 11, 10, 21, 32, -9]) ➞ 66

recurAdd([-21, -7, 19, 3, 4, -8]) ➞ -10

Notes
You're expected …
Create a function that takes an array of strings representing times ('hours:minutes:seconds') and returns

Examples
timeSum(["1:23:45"]) ➞ [1, 23, 45]

timeSum(["1:03:45", "1:23:05"]) ➞ [2, 26, 50]

timeSum(["5:39:42", "10:02:08", "8:26:33"]) ➞ [24, 8, 23]

Notes …
Given a number, create a function which returns a new number based on the following rules:
For each digit, replace it by the number of times it appears in the number.
The final instance of the number will be an integer, not as a string.

The following is a working example:
digitCount(136116) ➞ 312332

// The number 1 appears …
Given an number, return a string which contains varying amounts of the word 'MEGA' depending on the

If the number is less than 100, return "not a mega milestone".
Otherwise, start with the string "MEGA milestone".
For every order of magnitude over 100 that the number is, add the word "MEGA …
Given an array of numbers, create a function that removes 25% from every number in the array except th

Examples
showTheLove([4, 1, 4]) → [3, 3, 3]

showTheLove([16, 10, 8]) → [12, 7.5, 14.5]

showTheLove([2, 100]) → [27, 75]

Notes
There will only b …
A number num, that elevated to the power of another number k "ends" with the same num, it's automor

$5^2 = 25$
// It's automorphic because "25" ends with "5"

$5^3 = 125$
// It's automorphic because "125" ends with "5"

$76^4 = 33362176$
// It's automorphic because "33362176" ends with "76"

A number can have various powers th …
Create a function to bridge shuffle two arrays. To bridge shuffle, you interleave the elements from both a

Array 1 = ["A", "A", "A"]
Array 2 = ["B", "B", "B"]

Shuffled Array = ["A", "B", "A", "B", "A", "B"]

This can still work with two arrays of uneven length. We simply tack on the …
Create a function that converts color in RGB format to Hex format.

Examples
rgbToHex("rgb(0, 128, 192)") → "#0080c0"

rgbToHex("rgb(45, 255, 192)") → "#2dffc0"

rgbToHex("rgb(0, 0, 0)") → "#000000"

Notes

The Hex format should be displayed in lowercase.
Create a function that returns a RegEx that can be used to extract a value between two values. The two a

Examples
The red Car is fast.match(extractValueRegExp("The "," is fast"))[0] ➞ "red Car"

We'll meet at 5am at the Circus.match(extractValueRegExp("We'l …
A string is an almost-palindrome if, by changing only one character, you can make it a palindrome. Create

Examples
almostPalindrome("abcdcbg") ➞ true
// Transformed to "abcdcba" by changing "g" to "a".

almostPalindrome("abccia") ➞ true
// …
Imagine this triangle:

```
        1
  2 3
 4 5 6
 7 8 9 10
...
```

Create a function that takes a number n and returns the sum of all numbers in nth row.

Examples
rowSum(1) ➞ 1

rowSum(2) ➞ 5

rowSum(4) ➞ 34

Notes
1 <= N <= 1000
Mubashir needs your help to compare two arrays.

First array arr1 contains some numbers and second array arr2 contains squared values of numbers given

Create a function which takes these two arrays and returns true if all square values are available, false ot

arr1 = [121, 144, 19, 161, 19, 144, …
Create a function that takes a string (morse code) as an argument and returns an unencrypted string.

Examples
decodeMorse(".... . .-.. .--.   -- .   -.-.--") ➞ "HELP ME !"

decodeMorse("-.-. .... .- .-.. .-.. . -. --. .") ➞ "CHALLENGE"

decodeMorse(". -.. .- -... -... .. -   -.-. .... .- .-.. .-.. . -. --. .") ➞ "EDABBIT CH ...

Create a function that takes a date object and return string in the following format:

YYYYMMDDHHmmSS

The format should contain a 4 digit year, 2 digit month, 2 digit day, 2 digit hour(00-23), 2 digit minute and
Write a function that takes a string of brackets and checks whether they're balanced or not.

The sequence is balanced if:

It contains no unmatched brackets.
The subset of brackets enclosed within the confines of a matched pair of brackets is also balanced.

Examples
isBalanced("{[()]}") ➞ true

isBalanced("[()]{}") ➞ true
 ...
In this challenge, you must build a function that inflects an infinitive regular Italian verb of the first conjug

All first conjugation Italian verbs share the same suffix: ARE. The first thing to do is separate the verb roo
Root of ...
Create a function that creates a pattern as a 2D array for a given number.

Examples
 >
 >>
 >>>
 >>
 >

arrow(3) ➞ [">", ">>", ">>>", ">>", ">"]

 >
 >>
 >>>
 >>>>
 >>>>
 >>>
 >>
 >

arrow(4) ➞ [">", ">>", ">>>", ">>>>", ">>>>", ">>>", ">>", ">"]

Notes
Function argument will always be a number greater than 0.

Odd numbers w …

A group of pirates each have a distribution of gold coins, which can be represented as an array:

[3, 9, 4, 5, 5]
// Pirate 1 has 3 gold, Pirate 2 has 9 gold, etc.

The difference between each pirate's share of gold and that of the richest pirate is represented as:

[6, 0, 5, 4, 4]
// Since 6 = 9 - 3, 0 = 9 - 9, 4 = 9 - 5, e …
Create a function takes in two arrays and returns an intersection array and a union array.

Intersection Array: Elements shared by both.
Union Array: Elements that exist in first or second array, or both (not exclusive OR).

While the input arrays may have duplicate numbers, the returned intersection and union arrays should ..
Find the index of a string within a hex encoded string.

You will be given a string which needs to be found in another string which has previously been translated

Examples
firstIndex("68 65 6c 6c 6f 20 77 6f 72 6c 64", "world") ➞ …
Groups and ranges indicate groups and ranges of expression characters. Capturing groups matches x in (x

foo bar.match(/(foo)/) ➞ matches and remembers "foo"

Capturing groups often are used along with quantifiers. Quantifiers will use the capturing group as a who

Gogogo now!.match(/(go)+/i …
A number n is called uban if its name (in English) does not contain the letter "u". In particular, it cannot c

Write a function to determine if the given integer is uban.

Examples
isUban(456) ➞ false

isUban(25) ➞ true

isUban(…
Mubashir needs your help in a simple task. Create a function which takes two positive integers a and b. T

During this process, the greater number can be divisible by the smaller one. Your task is to count how ma

Example 1 …
Create a function that takes two arguments: an array arr and a number num. If an element occurs in arr r

Examples

deleteOccurrences([1, 1, 1, 1], 2) → [1, 1]

deleteOccurrences([13, true, 13, null], 1) → [13, true, null]

deleteOccurrences([true, true, …
Create a function that turns an array of words into a comma separated list, where the last word is separa

Examples
wordsToSentence(["edabit"]) → "edabit"

wordsToSentence(["Hello", "", "Bye"]) → "Hello and Bye"

wordsToSentence(["Hello", "Bye", "See you soon"]) → "Hello, Bye and See you soon"

Notes
nu …
Write a function that returns an array of elements [number, multiplicity]. The multiplicity of a number re

To illustrate:
[5, 5, 1, 1, 5, 5, 3]
[[5, 4], [1, 2], [3, 1]]

// Since 5 appears 4 times, 1 appears twice, and 3 appears once.

The final array should only include un …
Oh no! I've lost my glasses, but paradoxically, I need glasses to find my glasses!

Please help me out by showing me the index in the list which contains my glasses. They look like two cap

This means that both O--O and O------------O are valid glasses, but not O----#--O for exam …
The Fibonacci sequence is a classic use case for recursive functions since the value of the sequence at a g
The geometric mean of numbers a and b is the square root of their product (i.e. √(ab)). For example, the

Two integers (a and b) are randomly (and independently) chosen between 1 and n (inclusive) where n is a
Create a function that returns an array containing the prime factors of whatever integer is passed to it.

Examples
primeFactors(20) → [2, 2, 5]

primeFactors(100) → [2, 2, 5, 5]

primeFactors(8912234) → [2, 47, 94811]

Notes
Implement your solution using trial division.
Your solution should not require recursion.
Given a string containing a key signature written in shorthand, create a function which replaces the short

A lowercase letter denotes a minor key.
An uppercase letter denotes a major key.

See the examples below for a more helpful guide!

Examples
fullKeyName("Prelude in C") ➞ "Prelude in C m …
Write the following functions to extend the array prototype, by adding the methods:

square()
cube()
divisible_by(x)
strictly_above(x)
strictly_below(x)

Examples
[1, 2, 3].square ➞ [1, 4, 9]

[1, 2, 3].cube ➞ [1, 8, 27]

[1, 2, 3, 4].divisible_by(2) ➞ [2, 4]

[1, 2, 3, 4].strictly_above(1) ➞ [2, 3, 4]

[1, 2, 3, 4].strictly …
The wave (known as a Mexican wave in the English-speaking world outside North America) is an example

Create a function that takes a string and turns it into a Mexican Wave.

Examples
wave("eda …
Create a function that takes in an array of integers returns the number of even or odd digits for each nun

Examples
countDigits([22, 53, 99, 61, 777, 8], "odd") ➞ [0, 2, 2, 1, 3, 0]

countDigits([22, 53, 99, 61, 777, 8], "even") ➞ [2, 0, 0, 1, 0, 1]

countDigits([54, 113, 89, 10], "odd") ➞ [1 …
Create a function that sorts words by a given string.

Examples
sortByString(["apple", "banana", "cherry", "date"], "dbca")
➞ ["date", "banana", "cherry", "apple"]

sortByString(["small", "big", "medium"], "sazymtb")

➞ ["small", "medium", "big"]

sortByString(["poof", "floof", "loop"], "flatp")
➞ ["floof", "loop", "poof"]

N …
Extend the global Array object to have an instance method called isEqual(). The method should accept an

Examples
[1, 2, 3].isEqual([1, 2, 3]) ➞ true

[1, 2, 3].isEqual([1 …
Create a function that retrieves every number that is strictly larger than every number that follows it.

Examples
largerThanRight([3, 13, 11, 2, 1, 9, 5]) ➞ [13, 11, 9, 5]
// 13 is larger than all numbers to its right, etc.

largerThanRight([5, 5, 5, 5, 5, 5]) ➞ [5]
// Must be strictly larger.
// Always include the last num …
You have to build a rudimentary architecture that will simulate a system of XP points distribution among

Step 1: Build a class Challenge

The constructor parameters are id and level. The id will be the numerical identifier of the challenge, and l
You will be given an array of string "east" formatted differently every time. Create a function that returns

Examples
direction(["east", "EAST", "eastEAST"]) ➞ ["west", "WEST", "westWEST"]

 …
Create a function that accepts a string as an argument. Find its shortest word(s) and return them as an ar

Examples
findShortestWords("I think the solution is fairly obvious.") ➞ ["i"]

findShortestWords("Chase two rabbits, catch none.") ➞ ["two"]

findShortes …
Create a function that returns an array of the given string but offset by spaces. Here are some more prec

Keep adding spaces on the left until you have the same number of spaces as the word length.
Then keep removing spaces until you reach the original word.

Below are some helpful examples!

Examples
wiggl …
Create a function that takes a string (IPv4 address in standard dot-decimal format) and returns true if the

Examples
isValidIP("1.2.3.4") ➞ true

isValidIP("1.2.3") ➞ false

isValidIP("1.2.3.4.5") ➞ fals …
Given an array of math expressions, create a function which sorts the array by their answer. It should be

Examples
sortByAnswer(["1 + 1", "1 + 7", "1 + 5", "1 + 4"]) ➞ ["1 + 1", "1 + 4", "1 + 5", "1 + 7"]

sortByAnswer(["4 - 4", "2 - 2", "5 - 5", "10 - 10"]) ➞ ["4 - 4", "2 - 2", "5 - 5", "10 - 10" …
Create a function that takes an array and returns the number of ALL elements within it (including those w

Examples
deepCount([1, 2, 3]) ➞ 3

deepCount([[1], [2], [3]]) ➞ 6

deepCount(["x", "y", ["z"]]) ➞ 4

deepCount(["a", "b", ["c", "d", ["e"]]]) ➞ 7

Notes
In the examples above, notice how …
A number can eat the number to the right of it if it's smaller than itself. After eating that number, it beco

Examples
[5, 3, 7] ➞ [8, 7] ➞ [15]

// 5 eats 3 to become 8
// 8 …
What do the numbers 4, 6, 8, 9 and 0 have in common? They all have holes in them! Notice how the num

Given an array of numbers, sort the array in accordance to how many holes occur in the number. It shoul

Examples
holeySort([44, 4, 444, 4444]) ➞ [4, 44, 4 …
Create a function that takes a number and returns its multiplicative persistence, which is the number of t

Examples
bugger(39) ➞ 3
// Because 3 * 9 = 27, 2 * 7 = 14, 1 * 4 = 4 and 4 has only one digit.

bugger(999) ➞ 4
// Because 9 * 9 * 9 = 729, 7 * 2 …
This is a method commonly taught in primary schools, used to verify the correctness of an operation; usu

Every number involved in the multiplication is replaced by its digital root (reiterated sum of its digits unti
Create a function that takes a number num and returns its length.

Examples
numberLength(10) ➞ 2

numberLength(5000) ➞ 4

numberLength(0) ➞ 1

Notes
N/A
In this challenge, you have to establish if the digits of a given number form a straight arithmetic sequence

Given an integer n, implement a function that returns:
Not Straight if n is lower than 100 or if its digits are …
Create a function that given an array, it returns the index where if split in two-subarrays (last element of

Examples
twins([10, 20, 30, 5, 40, 50, 40, 15]) ➞ 5
// foundIndex 5 : [10+20+30+5+40]=[50+40+15]

twins([1, 2, 3, 4, 5, 5]) ➞ 4
// [1, 2, 3, 4] …
Create a function that alternates the case of the letters in a string.

Examples
alternatingCaps("Hello") ➞ "HeLlO"

alternatingCaps("How are you?") ➞ "HoW aRe YoU?"

alternatingCaps("OMG this website is awesome!") ➞ "OmG tHiS wEbSiTe Is AwEsOmE!"

Notes
The first character should always be UPPERCASE.
Ignore spaces.
Suppose a swimming pool blueprint can be represented as a 2D array, where 1s represent the pool and 0

[[0, 0, 0, 0, 0, 0, 0, 0],
[0, 1, 1, 1, 1, 1, 0, 0],
[0, 1, 1, 1, 1, 1, 0, 0],
[0, 1, 1, 0, 0, 0, 0, 0],

[0, 0, 0, 0, 0, 0, 0, 0]]
// Legitimate

Suppose a pool is considered legitimate …
Create a function that takes an imgur link (as a string) and extracts the unique id and type. Return an obje

The link could be pointing to:

An album (e.g. http://imgur.com/a/cjh4E)
A gallery (e.g. http://imgur.com/gallery/59npG)
An image (e.g. htt …
Create a function that given an array of dates returns the average date in string form.

Examples
averageDate([]) ➞ null

averageDate([
  new Date(Date.UTC(1970, 0, 1))
]) ➞ "1970-01-01T00:00:00.000Z"

averageDate([
  new Date(Date.UTC(1970, 0, 1)),
  new Date(Date.UTC(1971, 0, 1))
]) ➞ "1970-07-02T12:00:00.000Z"

Notes
For …
Every month, Microny™ (a big entertainment corporation) publishes a few free videogames on their web

Wri …
A Primorial is a product of the first n prime numbers (e.g. 2 x 3 x 5 = 30). 2, 3, 5, 7, 11, 13 are prime numb

Create a function that returns the Primorial of a number.

Examples
primorial(1) ➞ 2

primorial(2) ➞ 6

primorial(8) ➞ 9699690

Notes
N/A
In JavaScript, there are two types of comments:

Single-line comments start with //
Multi-line or inline comments start with / and end with /

The input will be a sequence of //, / and /. Every / must have a / that immediately follows it. To add, ther
In this challenge, the goal is recomposing scrambled strings made of two or more words.

Every string has to be reversed not in its totality, but by vowels or consonants clusters in the order they a
According to the lodash documentation, _.countBy creates an object composed of keys generated from t

Recreate lodash' …
Mubashir (as always) needs your help to complete his assignment.

You are given two positive integers n and m. You have to perform some basic mathematical operations o

(n-1)/2   - if (n-1) is divisible by 2
n/2   - if n is divisible by 2
n*2

Create a function that returns the min …
In this challenge, it's time to ban some impenitent digit!

Your job is to delete the digits of a given number that, within their name written in English, contain a give

Given an integer n, and a string ban being the vowel to search, implement a function that returns:
If the given vowel is not present in the name of …
Return the coordinates ([row, col]) of the element that differs from the rest.

Examples
whereIsWaldo([
  ["A", "A", "A"],
  ["A", "A", "A"],
  ["A", "B", "A"]
]) → [3, 2]

whereIsWaldo([
  ["c", "c", "c", "c"],
  ["c", "c", "c", "d"]
]) → [2, 4]

whereIsWaldo([
  ["O", "O", "O", "O"],
  ["O", "O", "O", "O"],
  ["O", "O", "O …
Create a function that takes an array of objects like { name: "John", notes: [3, 5, 4]} and returns an array o

Examples
[
  { name: "John", notes: [3, 5, 4]}
] → [

{ name: "John", avgNote: 4 }
]

Notes
Try do …
Create a function that takes three arrays and returns one array where all passed arrays are combined int

These arrays should be combined based on indexes: the first nested array should contain only the items

If any array contains fewer items than necessary …
In the world of birding there are four-letter codes for the common names of birds. These codes are creat

If the bird's name has only one word, the code takes the first four letters of that word.
If the name is made up of two words, the code takes the first two letters of each word.
If the name is mad …
Create a function that takes a string and replaces every nth instance of oldChar with newChar. Your funct

str — The original input text to be processed.
nth — The nth instance to be replaced.
oldChar — The character being replaced.
newChar — The character replacing oldChar.

In other words, if …
Recreate C#'s String.Format where the first argument is the string template and all subsequent argument

Examples
String.Format("{0}{1}{2}{1}{0}", "k", "a", "y") ➞ "kayak"

String.Format("Palindromes are {0}", "fun") ➞ "Palindromes are fun"

String.Format(…
Given a Binary Search Tree (BST) implementation, complete the minimum, and maximum function which

Examples
data = [10, 4 , 20 , 1 , 5]

maximum() ➞ 20
          10
     / \
    4   20
  / \
 1   5

data = [100, 70, 200, 34, 80 …
You are driving in a roundabout. At the moment you enter, you don't know which one of the exits you ha

Assuming t …

Suppose a hash # represents the BACKSPACE key being pressed. Write a function that transforms a string

Examples
erase("he##l#hel#llo") ➞ "hello"

erase("major# spar##ks") ➞ "majo spks"

erase("si###t boy") ➞ "t boy"

erase("####") ➞ ""

Notes
In addition to characters, backspaces ca …
Write a function that returns true if a given name can generate an array of words.

Examples
anagram("Justin Bieber", ["injures", "ebb", "it"]) ➞ true

anagram("Natalie Portman", ["ornamental", "pita"]) ➞ true

anagram("Chris Pratt", ["chirps", "rat"]) ➞ false
// Not all letters are used

anagram("Jeff Goldblum", ["jog", "me …
Write a function that returns true if every consecutive sequence of ones is followed by a consecutive seq

Examples
sameLength("110011100010") ➞ true

sameLength("101010110") ➞ false

sameLength("111100001100") ➞ true

sameLength("111") ➞ false

Notes
N/A
Given an integer, return a new integer according to the rules below:

Split the number into groups of two digit numbers. If the number has an odd number of digits, return "in
For each group of two digit numbers, concatenate the last digit to a new string the same number of time
Return …
Write a function that converts a string into star shorthand. If a character is repeated n times, convert it in

Examples
toStarShorthand("abbccc") ➞ "ab2c3"

toStarShorthand("77777geff") → "75gef2"

toStarShorthand("abc") → "abc"

toStarShorthand("") → ""

Notes
Leave lone occurrences of a character as is.
Ret …
Jack and Jill are twins. When they are 10 years of age, Jack leaves earth in his spaceship bound for Altair
This is a reverse coding challenge. Normally you're given explicit directions with how to create a function

Your task is to create a function that, when fed the inputs below, produce the sample outputs shown.

Examples

Create a
function
that takes
an array of
arrays and
return the
length of
the missing
array.

Examples
findMissing
([[1], [1, 2],
[4, 5, 1, 1],
[5, 6, 7, 8,
9]]) → 3

findMissing
([[5, 6, 7, 8,
9], [1, 2],
[4, 5, 1, 1],
[1]]) → 3

findMissing
([[4, 4, 4,
4], [1], [3,
3, 3]]) → 2

longestCommonEnding("potent", "tent") → "tent"

longestCommonEnding("skyscraper", "carnivore") → ""

Notes
Return an empty string if there exists no common ending.
Create a function that takes an array with temperature type, temperature, and a second temperature typ

Examples
converter(["fahrenheit", 3] , "kelvin") �→ 257.0

converter(["ce …
Given an object literal of student names and an array of their test scores over the semester, return a list
However, there is one more thing to mention: the pass mark is 100% in everything!

Examples
whoPassed({
  "John" : ["5/5", "50/50", "10/10", "10/10"],
 …
If you take an integer and form the product of its individual digits, you get a smaller number. Keep doing

The number of steps it takes to reach this point is known as the integer's multiplicative persistence. For e
Pizza Points

Google is launching a network of autonomous pizza delivery drones and wants you to create a flexible re

Create a function that takes an objec …
Create a function that tweaks letters by one forward (+1) or backwards (-1) according to an array.

Examples
tweakLetters("apple", [0, 1, -1, 0, -1]) → "aqold"
// "p" + 1 => "q"; "p" - 1 => "o"; "e" - 1 => "d"

tweakLetters("many", [0, 0, 0, -1]) → "manx"

tweakLetters("rhino", [1, 1, 1, 1, 1]) → "sijop"

Notes
Don't worry a …
You are given two strings s and t.

String t is generated by randomly shuffling string s and then adding one more letter at a random position

Return the letter that was added to t.

Examples
findTheDifference("", "e") → "t"

findTheDifference("abcd", "abcde") → "e"

findTheDifference("rt", "rst") ➞ "s"

findTheDifference(" …
You've just webscraped a web page and stored it in a string. In the string there is a bullet list of states tha

const str = `
Texas = no
California = yes
Florida = yes
Michigan = no
`

Add a negative lookahead assertion so a regex match would output the states that voted no. DO NOT …
Implement a function count_substring that counts the number of substrings that begin with character "A

For example, given the input string "CAXAAYXZA", there are four substrings that begin with "A" and ends

Examples
countSubstring("CAXAAYXZA …
Write a function that returns the number of ways a person can climb n stairs, where the person may only

To illustrate, if n = 4 there are 5 ways to climb:
[1, 1, 1, 1]
[2, 1, 1]
[1, 2, 1]
[1, 1, 2]
[2, 2]

Examples
waysToClimb(1) ➞ 1

waysToClimb(2) ➞ 2

waysToClimb(5) ➞ 8

Notes
A staircase of …
A city skyline can be represented as a 2-D array with 1s representing buildings. In the example below, the

[[0, 0, 0, 0, 0, 0],
[0, 0, 0, 0, 1, 0],
[0, 0, 1, 0, 1, 0],
[0, 1, 1, 1, 1, 0],
[1, 1, 1, 1, 1, 1]]

Create a function that takes a skyline (2-D array of …
Create a function that takes a number and return a string with the number in expanded notation (AKA ex

Examples
expand(13) → "10 + 3"

expand(86) → "80 + 6"

expand(17000000) → "10000000 + 7000000"

expand(5325) → "5000 + 300 + 20 + 5"

Notes
You can expec …
Create a function that takes the length, width, height (in meters) and output unit and returns the volume

Examples
pyramidVolume(4, 6, 20, "centimeters") → "160000000.000 cubic centimeters"

pyramidVolume(1843, 1823, 923, "kilometers") → "1.034 cubic kilometers"

py …
You will be given an object with various consumer products and thier respective prices. Return a list of th

Examples
products({"Computer" : 600, "TV" : 800, "Radio" : 50}) → ["TV","Computer"]

products({"Bike1" : 510, "Bike2" : 401, "Bike3" : 501}) → ["Bike1", "Bike …
Mubashir needs your help to find out trailing zeros after calculating factorial of a given number.

Create a function which takes a number n and calculates the number of trailing zeros in factorial of the gi

n! = 1 * 2 * 3 * ... * n

Examples
trailingZeros(0) → 0
// 0! = 1
// No trailing zero.

trailingZeros(6) → …
Create a function that transposes a 2D matrix.

Examples
transposeMatrix([
  [1, 1, 1],
  [2, 2, 2],
  [3, 3, 3]
]) → [
  [1, 2, 3],

[1, 2, 3],
  [1, 2, 3]
]

transposeMatrix([
  [5, 5],
  [6, 7],
  [9, 1]
]) → [
  [5, 6, 9],
  [5, 7, 1]
]

Notes
N/A
Given a positive integer n, compute the nth term in the Fibonacci sequence. For those of you that have b

The first and second terms are 1.
nth term is the (n-1)th term + the (n-2)th term. So the 3rd term is the 1st term + the 2nd term, the 4th te
Write a function that sorts a given array in an alternative fashion. The result should be a array sorted in a

Examples
alternateSort(["a", "b", "c", 1, 2, 3]) → [1, "a", 2, "b", 3, "c"]

alternateSort([-2, "f", "A" …
The Edabit Medical Industries are developing a new drug, the Edabitin™, which will (hopefully) increase t
Create a function that takes an array as an argument and return an array of the sum of each of its slices.

Examples
sumOf …
Create a function that calculates an energy bill.

Given a billing start date and end date, start and end meter reading, a unit price in pence, and a standing

An energy bill is calculated by multiplying the difference between meter readings with …
Create a function that takes a string as an argument and tells the number of repitions of a substring. It is

In this scenario, we do the opposite. Given the final string …
A coloured triangle is created from different rows of colours (Red, Green or Blue). Successive rows, each
Create a function that determines if a given sequence is linear, quadratic or cubic. The input will be an ar

Examples
seqLevel([1, 2, 3, 4, 5]) → "Linear"

seqLevel([3, 6, 10, 15, 21]) → "Quadratic"

seqLevel([4, 14, 40, 88, 164]) …

Given two arrays, return whether the two arrays are opposites of each other. That means both arrays are

Examples
isAntiArray(["1", "0", "0", "1"], ["0", "1", "1", "0"]) → true

isAntiArray(["apples", "bananas", "ba …
Joseph is in the middle of packing for a vacation. He's having a bit of trouble finding all of his socks, thoug

Write a function that returns the number of sock pairs he has. A sock pair consists of two of the same let

Examples
sockPairs("AA") → 1

soc …
Create a function that takes an array consisting of dice rolls from 1-6. Return the sum of your rolls with th

If a 1 is rolled, that is bad luck. The next roll counts as 0.
If a 6 is rolled, that is good luck. The next roll is multiplied by 2.
The array length will always be 3 or higher.

Examples
rol …
Write a function that will return the longest word in a sentence. In cases where more than one word is fc

Examples
findLongest("A thing of beauty is a joy forever.") → "forever"

findLongest("Forgetfulness is by all means powerless!") → "forgetfulness"

findLongest("\"Strengths\" is the longest and …
In this challenge, you have to separate integers into two families, establishing if they are Junction Numbe

If exists at least a single number which added to the sum of its digits is equal to n, then n is a Junction Nu

If there are not numbers which added to the sum of their digits …
Mubashir needs your help to find out number of animals hidden in a given string txt.

You are provided with an array of animals given below:

animals = ["dog", "cat", "bat", "cock", "cow", "pig",
fox, "ant", "bird", "lion", "wolf", "deer", "bear",
frog, "hen", "mole", "duck", "goat"]

Rule: Return the maximum number of a …
Create a regular expression that checks for a password:
It should contain at least one uppercase letter.
It should contain at least one lowercase letter.

It should contain at least one digit.
It should contain at least one special symbol.

REGEXP.test("bbA234c@cy~!") ➞ true

REGEXP.test("32Bl4###xxz") ➞ true

REGEXP.test("! …
An ice cream sandwich is a string that is formed by two identical ends and a different middle.

Some examples of ice cream sandwiches:
AABBBAA

3&&3

yyyyymmmmmmmmyyyyy

hhhhhhhhmhhhhhhhh

Notice how left and right ends of the sandwich are identical in both length and in repeating character. Th
Create a function that takes an array of more than three numbers and returns the Least Common Multip

Examples
lcmOfArray([1, 2, 3, 4, 5, 6, 7, 8, 9, 10]) ➞ 2520

lcmOfArray([13, 6, 17, 18, 19, 20, 37]) ➞ 27965340

lcmOfArray([44, 64, 12, 17, 65]) ➞ 2333760

Notes
The LCM of an array of numbers is the smallest posit …
Given a sentence of all lowercase words, reverse all the letters in each word, but leave the first and last l

Examples
mixMiddle("the quick brown fox jumps high") ➞ "the qciuk bworn fox jpmus hgih"

mixMiddle("this sentence is quite muddled") ➞ "tihs scnetnee is qtiue melddud"

mixMiddle("buying a first-c …
Create a function that subtracts one positive integer from another, without using any arithmetic operato

Examples
mySub(5, 9) ➞ 4

mySub(10, 30) ➞ 20

mySub(0, 0) ➞ 0

Notes
Do not multiply by -1.
Use bitwise operations only: <<, |, ~, &, etc.
Create a function that returns true if the two-dimensional n x n input array has a checker-board pattern.

Examples
isCheckerboard([
  [1, 1],
  [0, 1]
]) → false

isCheckerboard([
  [0, 1],
  [1, 0]
]) → true

isCheckerboard([
  [1, 0, 1, 0, 1],
  [0, 1, 0, 1, 0],
  [1, 0, 1, 0, 1],
  [0, 1, 0, 1, 0],
  [1, 0, 1, 1, 1]
]) → ...
Given an array of distinct integers, create a function that checks if the array is sorted and rotated clockwi

Examples
check([3, 4, 5, 1, 2]) → "YES"
// The above array is sorted and rotated.
// Sorted array: [1, 2, 3, 4, 5].
// Rotating this sorted array clockwise
// by 3 posi ...
Create a function that takes an array and a number and selectively reverse the order of the array based o

Examples
selReverse([1,2,3,4,5,6], 2) → [2,1, 4,3, 6,5]

selReverse([2,4,6,8,10, ...
You are given an input array of strings, ordered by ascending length.

Write a function that returns true if, for each pair of consecutive strings, the second string can be formed

Examples
canBuild(["a", "at", "ate", "late", "plate", "plates"]) → true

 ...
A magic sigil is a glyph which represents a desire one wishes to manifest in their lives. There are many wa
Create a function that determines whether it is possible to build a palindrome from the characters in a st

Examples
possiblePalindrome("acabbaa") → true
// Can make the following palindrome: "aabcbaa"

possiblePalindrome("aacbdbc") → true
// Can make the following palindrome: "abcdcba"

possiblePalindrome("aacbdb") → f …
Write a function that swaps the X and Y coordinates in a string.

Examples
swapXY("(1, 2), (3, 4)") → "(2, 1), (4, 3)"

swapXY("(11, 23), (43, 99)") → "(23, 11), (99, 43)"

swapXY("(-5, -3), (7, 4)") → "(-3, -5), (4, 7)"

Notes
Some numbers have multiple digits.
Some numbers will be negative.
Given an object with students and the grades that they made on the tests that they took, determine whic

Example …
Create a function that recursively counts the integer's number of digits.

Examples
count(318) → 3

count(-92563) → 5

count(4666) → 4

count(-314890) → 6

count(654321) → 6

count(638476) → 6

Notes
You are expected to solve this challenge via recursion.
You can check on the Resources tab for more details about recursion.
A …
Given two words, the letter distance is calculated by taking the absolute value of the difference in charac

If one word is longer than another, add the difference in lengths towards the score.

To illustrate:

letterDistance("house", "fly") = dist("h", "f") + dist("o", "l") + dist("u" ...
Given a YouTube URL, extract the video ID and return it as a string.

Examples
youtubeId("https://www.youtube.com/watch?v=XPEr1cArWRg") ➞ "XPEr1cArWRg"

youtubeId("https://youtu.be/BCDEDi5gDPo") ➞ "BCDEDi5gDPo"

youtubeId("https://youtube.com/watch?t=4m40s&v=vxP3bY-XxY4") ➞ "vxP3bY-XxY4"

Notes
All input are valid YouTube links.
Given a sentence, return the number of words which have the same first and last letter.

Examples
countSameEnds("Pop! goes the balloon") ➞ 1

countSameEnds("And the crowd goes wild!") ➞ 0

countSameEnds("No I am not in a gang.") ➞ 1

Notes
Don't count single character words (such as "I" and "A" in example #3).
The function s ...
Create a function that takes in two arrays and determines whether there exists a flush.

The first array represents the 5 cards dealt on the table.
The second array represents the 2 cards in your hand.

Notation: card number and suit (abbreviated as S = Spades, H = Hearts, D = Diamonds, C = Clubs) separat
Given an array of random digits of any length, return true if the number n appears times times in a row, a

Worked Example
isThereConsecutive([1, 3, 5, 5, 3, 3, 1], 3, 2) ➞ true
// Second parameter is the number to look out for (3).
// Third parameter means you need to find the number 3 twice in a row.
// ...
Write a function that sorts an array of integers by their digit length in descending order, then settles ties

Examples
digitSort([77, 23, 5, 7, 101])
➞ [101, 23, 77, 5, 7]

digitSort([1, 5, 9, 2, 789, 563, 444])
➞ [444, 563, 789, 1, 2, 5, 9]

digitSort([53219 …
Create a function that returns true if an input array can be completely sorted by only sorting within the b

Examples
boundSort([1, 6, 5, 3, 8, 9], [0, 3]) → true
// If [1, 6, 5, 3] is sorted to [1, 3, 5, 6], the array is co …
This challenge concerns strings such as:

repeatedrepeatedrepeated

… that are obtained by repeating a smaller string, which in this case is the string "repeated".

On a related note, since the string above is made of 3 repetitions, one way to produce this string is via th

Write a function t …
From point A, an object is moving towards point B at constant velocity va (in km/hr). From point B, anoth

Format the …
Create a function that validates a password to conform to the following rules:

Length between 6 and 24 characters.
At least one uppercase letter (A-Z).
At least one lowercase letter (a-z).
At least one digit (0-9).
Maximum of 2 repeated characters.
  "aa" is OK 👍
  "aaa" is NOT OK 👎
Supported special characters:
  ! @ # $ …
A block sequence in three dimensions. We can write a formula for this one:

Sequence Step 1 - 5

Create a function that takes a number (step) as an argument and returns the amount of blocks in that ste

Examples
blocks(1) → 5

blocks(5) → 39

blocks(2) → 12

Notes
Step 0 obviously has to return 0.
The input is always a pos …
A Harshad number is a number which is divisible by the sum of its digits. For example, 132 is divisible by 6

A subset of the Harshad numbers are the Moran numbers. Moran numbers yield a prime when divided b

Create a function that t …

Excel column names are in the following format:

A, B, ..., Z, AA, ..., AZ, BA, ..., ZZ, AAA, AAB, ...

Write a function that returns the column number from the row name.

Examples
column("A") → 1

column("Z") → 26

column("AA") → 27

column("BA") → 53

Notes
N/A

Create a function that takes a string containing integers as well as other characters and return the sum of

Examples
positiveSum("-12#-33 13%14&-11") → 27
// 13 + 14 = 27

positiveSum("22 13%14&-11-22 13 12 0") → 74
// 22 + 13 + 14 + 13 + 12 = 74

positiveSum("0 12 12 2") → 26

Notes
There is at …

In this challenge, you have to verify if a number is exactly divisible by a combination of its digits. There ar

The given number is exactly divisible by each of its digits excluding the zeros.
The given number is exactly divisible by the sum of its digits.
The given number is exactly divi …

Suppose a student can earn 100% on an exam by getting the answers all correct or all incorrect. Given a

["A", "", "C" …

Create a function that takes an array of integers that represent the amount in dollars that a single stock i

If given the following array:

[[44, 30, 24, 32, 35, 30, 40, 38, 15]]

... your program s …
Create a function brackets() that takes a string and checks that the brackets in the math expression are c

Examples
brackets("(a*(b-c).....)") → true

brackets(")(a-b-45/7*(a-34))") → false

brackets("sin(90...)+.............cos1)") → false

Notes
The string may not contain …
Create a function that takes a string and determine if it's a valid sequence by either returning true or fals
You are given an array of prime factors arr and a target. When each number in the array is raised to an ap

Your role is to return the exponents. All these arrays will have a length of three. Basically, it is three num
Challenge: write your own version of groupBy called myGroupBy using vanilla JavaScript that can do the s

The lodash helper function, groupBy, recieves an array and groups the items of the array into an object a
You will be given an array of dancing couples, with the woman first and man second, as well as a parame
If the parameter is "men", the men reverse their positions (first moves to last, last moves to first, etc), wl
If the parameter is "women", the women reverse their positi …
Create a function that decomposes an integer into its prime factors, ordered from smallest to largest.

For instance:

completeFactorization(24) = [2, 2, 2, 3]
// Since 24 = 8 x 3 = 2^3 x 3 = 2 x 2 x 2 x 3

Examples
completeFactorization(10) → [2, 5]

completeFactorization(9) → [3, 3]

completeFactorization(72) → [2, 2, 2, 3 …
For this question, treat people as existing only on integers.

Two ice cream stands: A and B each occupy a spot on the beach, from [0, 100]. Their positions are repres

[32, 69]

People are distributed equally from [0, 100], and will purchase ice cream from the stand clos …
You want to introduce a discount for your online store. Every customer gets a 25% discount on the most

Create a function that takes an object and returns the total price …
In a letter to Lord Bowden in 1837, Charles Babbage asked, "What is the smallest positive integer whose

Write a function that takes a positive integer n and returns the smallest number whose square ends with

Goldbach's Conjecture is amongst the oldest and well-known unsolved mathematical problems. In corres

Every even whole number greater than 2 is the sum of two prime numbers.

Even though it's been thoroughly tested …
Given an array of numbers, return the pair of numbers that give the minimum absolute difference. Retur

Examples
minDifferencePair([40, 16, 8, 17, 15]) ➞ [15, 16]
// [15, 16] has smaller sum th …
Create a function to reproduce the wrap around effect shown:

Examples
wrapAround("Hello, World!", 2) ➞ "llo, World!He"

wrapAround("From what I gathered", -4) ➞ "eredFrom what I gath"

wrapAround("Excelsior", 30) ➞ "elsiorExc"

wrapAround("Nonscience", -116) ➞ "cienceNons"

Notes
The offset can be negative.
The offset can b …
Starting from the left side of an integer, adjacent digits pair up in "battle" and the larger digit wins. If two

Create a function that returns the victorious digits.

To illustrate:
battleOutcome(578921445) ➞ 7925
// [57]: 7 wins; [89] 9 wins; [21] 2 win …
Create a function that takes a string and returns true if Danny is found and false if he's not.

Examples
checkIfDannyIsHere("is there dan here ?") ➞ false

checkIfDannyIsHere("I found you d4nny") ➞ true

checkIfDannyIsHere("and here dan ny ?") ➞ false

checkIfDannyIsHere("danny is here") ➞ true

Notes
Danny likes to hide hi …
Below is an example of a repeating cycle.

isRepeatingCycle([1, 2, 3, 1, 2], 3) => true
// Since the first two elements of [1, 2, 3] equals [1, 2]

Below is an example of a non-repeating cycle.

isRepeatingCycle([1, 2, 3, 1, 3], 3) => false
// Since [1, 2, 3] != [1, 3]

You are tasked with writing a function that takes in tw …
Ever heard about 13.0.0.0.0 and the end of the world? The Maya civilization used to record the passed d

Days were recorded in a 5-place counter …
Create a function that takes an array of names in the format "First Name Last Name" (e.g. "John Doe"), a

Examples
lastNameLensort([
  "Jennifer Figu …
Create a function that returns true if three points belong to the same line, and false otherwise. Each poin

Examples
sameLine([[0, 0], [1, 1], [3, 3]]) → true

sameLine([[-2, -1], [2, 1], [0, 0]]) → true

sameLine([[-2, 0], [-10, 0], [-8, 0]]) → true

sameLin …
In this challenge, you have to establish if a given number is undulating. A number n is undulating when th

n has at least three digits.
n has exactly two different digits.
The two digits of n are alternating without repeating groups.

If we think at the first digit of an undulating number …
Create a function that follows the "ABACABADABACABA" rule up to a certain letter.

The abacabadabacaba pattern is where you start with the first letter (a), and with each new letter, you a

For instance:

A → A
B → ABA
C → ABACABA
D → ABACABADABACABA
E → ABACABA …
A floor plan is arranged as follows:

You may freely move between rooms 1 and 2.
You may freely move between rooms 3 and 4.
However, you can enter the hallway to move between rooms 2 and 4.

Floor Plan

Create a function that validates whether the route taken between rooms is possible. The hallway will be
In this challenge, you have to find the last 15 palindromes of all numbers starting from ten and up to a giv

Given an integer limit being the upper limit of the range of interest, implement a function that returns th
Write a function that returns the total number of integers covered from an array of intervals (inclusive). I

Examples
coveredIntegers([[80, 81], [1, 2], [9, 11]]) ➞ 7
// Seven integers are covered: 1, 2, 9, 10, 11, 80, 81

coveredIntegers([[3, 6], [4, 6], …
The look-and-say sequence is generated by describing each group of identical digits in the previous term.

1 = "one 1" = "11"
11 = "two 1's" = "21"
21 = "one 2, one 1" = "1211"
1211 = "one 1, one 2, two 1's" = "111221"
111221 = "three 1's, two 2's, one 1 …
The following is the Lychrel test.

Start with any positive number. Add the number with the number formed by reversing its digits. Is the su

For most numbers, a palindrome is produced after a few iterations (7 or fewer) of the process above. Nu
Today you volunteered as a librarian. You were given an array of objects, each one containing different b

Examples
sortByLastName([
  { name: "Harry Potter", rating: "8+", author: "Joanne Rowling" },
  { name: "Warcross", rating: " …
Python's range function can only generate a list of integers, your task is to generate a list of floats. Gener

Examples
genValues(2, 0.25) ➞ [0.0, 0.25, 0.5, 0.75, 1.0, 1.25, 1.5, 1.75, 2.0]

genValues(1, 0.1) ➞ [0.0, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, …
Create a function that accepts a string and groups repeated values. The groups should have the following

value: Character being assessed.
first_index: Index of characters first appearance.
last_index: Index of c …
The Collatz sequence is as follows:

Start with some given integer n.
If it is even, the next number will be n divided by 2.
If it is odd, multiply it by 3 and add 1 to make the next number.
The sequence stops when it reaches 1.

According to the Collatz conjecture, it will always reach 1. If that's true, you can construct a …
In this challenge, you have to establish if a positive integer is a Modest number, accordingly to the follow
Divide the number into two left and right partitions.
For each combination of left and right parts, you have to check if a condition is true: the remainder of the
Create a function that takes an array and string. The function should remove the letters in the string from

Examples
removeLetters(["s", "t", "r", "i", "n", "g", "w"], "string") ➞ ["w"]

removeLetters(["b", "b", "l", "l", "g", "n", "o", "a", "w"], "balloon") ➞ ["b", "g", "w"]

removeLetters(…
Given an array and a set, return a sorted array with its items in ascending order but prioritize the elemen

Examples
prioritySort([5, 4, 3, 2, 1], new Set([2, 3])) ➞ [2, 3, 1, 4, 5]

prioritySort([5, 4, 3, 2, 1], new Set([3, 6])) ➞ [3, 1, 2, 4, 5]

prioritySort([-5, -4, -3, -2 …
In XOR Cipher, encoding is done by an XOR operation on two given strings. If the strings are of different l

Given two strings of msg1 and msg2, return the encoded …
Given a number, insert duplicate digits on both sides of all digits which appear in a group of 1.

Worked Example
numbersNeedFriendsToo(22733) ➞ 2277733

// The number can be split into groups 22, 7, and 33.
// 7 appears on its own.
// Put 7s on both sides to create 777.
// Put the numbers together and return the result.

Ex …
Juan loves the Dakti song and wants to memorize the chorus of the song. His friend sent him the chorus i

Use RegEx, natural sorting, sorting, or lambda functions; your imagi …
Write a function that takes an integer n and turns it into the ouput. No further instructions.

Examples
mysteryFunc(521) ➞ "151211"

mysteryFunc(5211255) ➞ "1512211225"

mysteryFunc(513515) ➞ "151113151115"

Notes
The result has to do with counting something.
Check the Tests tab for some extra hints.
Your job is to figure out why Daniel likes Wendy, and some other girls. If you look at the Tests tab you'll n

Create a function that returns whether he likes her true, or not false.

Examples
danielLikes("Imani") ➞ false

danielLikes("Margo") ➞ true

danielLikes("Sandra") ➞ false

N …
Create a function which takes a string txt and expands it as per following rules:

The numeric values represent the occurrence of each letter preceding that numeric value.

stringExpansion("3M2u5b2a1s1h2i1r") ➞ "MMMuubbbbbaashiir"

The first occurrence of a numeric value should be the number of times each character behind it …
A word-chain is an array of words, where the next word is formed by changing exactly one letter from the

Create a function that returns true if an array is a word-chain and false otherwise.

Examples
isWordChain(["meal", "seal", "seat", "beat", " …
Create a function that takes in a sentence and returns a running list of consonants per word and vowels p

Examples
stringCode("Happy Birthday To Me!")
➞ ["4 6 1 1", "1 2 1 1"]

// Consonants - 4 : [H, p, p, y], 6 : [B, r, t, h, d, y], 1: [T], 1 : [M]
// Vowels - 1: [a], 2 : [i, a], 1: [o], 1: [e]

stringCode("I'd li …
Write a function that returns the extended form of the prime factorization of a number. Return in the for

Examples
primeFactorization(216) ➞ [2, 2, 2, 3, 3, 3]

primeFactorization(64) → [2, 2, 2, 2, 2, 2]

primeFactorization(23) → [23]

Notes
N/A
Mona has created a method to sort an array in ascending order.

Starting from the left of the array, she compares numbers by pairs. If the first pair is ordered [smaller nur
Create a function similar to Processing's "map" function (check the Resources tab), in which a value and i

The function takes 5 numbers:
Value: value
Range: low1 and high1
Range: low2 and high2

Examples
remap(7, 2, 12, 0, 100) → 50

remap(17, 5, 55, 100, 30) → 83.2

remap(50, 1 …
Write a function that sorts only the odd numbers in an array in ascending order, keeping the even numbe

For example, if our input array is: [5, 2, 6, 6, 1, 4, 9, 3]:

[, 2, 6, 6, , 4, ,] // keep evens in place.

// Sort odds: [5, 1, 9, 3] => [1, 3, 5, 9]

[1, 2, 6, 6, 3, 4, 5, 9] // final array. …
Write a function that returns the most frequent character in an array of words.

Examples
mostFrequentChar(["apple", "bandage", "yodel", "make"])
→ ["a", "e"]

mostFrequentChar(["music", "madness", "maniac", "motion"])
→ ["m"]

mostFrequentChar(["the", "hills", "are", "alive", "with", "the", "sound", "of", "music"])
→ ["e", …
Create a function that takes a matrix of size (m, n) and returns a matrix of size (m+2, n+2) with a pad of 0

Examples
padMatrix([[]]) → [[0, 0], [0, 0], [0, 0]]

padMatrix([[9]]) → [
  [0, 0, 0],
  [0, 9, 0],
  [0, 0, 0]
]

padMatrix([["hi", True]]) → [
  [0, 0, 0, 0],
  [0, "hi", True, 0],
  [0, 0, 0 …

According to the lodash documentation, _.camelCase turns a string into camelcase. Your task is to recrea

There is already a camel case challenge on Edabit but lodash's version is much more robust. It can tell if a
You were bored, so you decided to try out a new game you recently downloaded. There are five types of
An anagram is a word, x, formed by rearranging the letters that make up another word, y, and using up a

The Hamming distance between two strings is the number of positions at which they differ. Hamming …
In Mirror Cipher, encoding is done by by switching message characters with its mirror opposite character

Create a function that takes two arguments; a message and an optional key, and returns the encoded me

There are some variations on the rules of encipherment. One version of the cipher rules are outline …
Given two integers create a function that counts the number of primes between the two given integers.

Examples
primeCount(1, 10) → 4
// range = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
// primes = [2, 3, 5, 7]
// answer = 4

primeCount(1, 100) → 25

primeCount(1, 1000) → 168

Notes
If there are no primes within the given range, retu …
Create a function which takes every letter in every word, and puts it in alphabetical order. Note how the

Examples
trueAlphabetic("hello world") → "dehll loorw"

trueAlphabetic("edabit is awesome") → "aabdee ei imosstw"

trueAlphabetic("have a nice day") → "aaac d eehi nvy"

Notes
A …

Write a regular expression that inserts Hello immediately after the `` tag. The tag may have attributes. Yc

Examples
const REGEXP = /your regular expression/

let str = "\ ... "

str = str.replace(REGEXP, Hello)

con ...
A briefcase has a 4-digit rolling-lock. Each digit is a number from 0-9 that can be rolled either forwards or

Create a function that returns the smallest number of turns it takes to transform the lock from the curren
Create a function to return the Nth number in the Fibonacci sequence as a string.

Examples
fibonacci(10) → "55"

fibonacci(20) → "6765"

fibonacci(30) → "832040"

fibonacci(40) → "102334155"

fibonacci(50) → "12586269025"

fibonacci(60) → "1548008755920"

Notes

Your function is expected to calculate numbers greater than th ...
Two arrays are part of the same zipper if the ending is identical. The identical section can be thought of a

Array 1: [3, 5, 8, 9, 2, 2, 4]
Array 2: [1, 7, 2, 2, 4]

Create a function that takes in two arrays. Return false if none of the array is "zipped." Return true if ...
In this challenge, you have to deal with a matrix that is moving from the left to the right by a given amou
Create a function which replaces all instances of "nts" with "nce" and vice versa if they are at the end of a

Examples
switcheroo("The elephants in France were chased by ants!") → "The elephance in Frants were chased by

switcheroo("While he rants, I fall into a trance...") → "While he rance, I fall into a tran ...
A perfect square binomial is a trinomial that when factored gives you the square of a binomial. For exam|

Three integers (a, b, and c) are randomly (and independently) chosen between 1 and n (inclusive) where

Write a function that efficiently calculates Fibonacci terms.

Examples
fibonacci(1) ➞ 1

fibonacci(2) ➞ 1

fibonacci(4) ➞ 3

fibonacci(64) ➞ 10610209857723

Notes
The input will always be a power of two.
According to the lodash documentation, .pull Removes all given values from array using SameValueZero f

Arguments
array (Array): The array to modify.
values: The values to remove.

Example
You work in a car dealership. A government inspector is com …
Given a two-dimensional array of maze and an array of directions. Your task is to follow the given directic
If you can reach the endpoint before all your moves have gone, return "Finish".
If you hit any walls or go outside the maze border, return "Dead".
If you find yourself still in the maze after using all the moves, re …
Write your own version of the lodash _.partition function. Partition receives a "collection", which can be

const array = [{ …
Write a function that sorts the positive numbers in ascending order, and keeps the negative numbers unt

Examples
posNegSort([6, 3, -2, 5, -8, 2, -2]) ➞ [2, 3, -2, 5, -8, 6, -2]

posNegSort([6, 5, 4, -1, 3, 2, -1, 1]) ➞ [1, 2, 3, -1, 4, 5, -1, 6]

posNegSort([-5, -5, -5, -5, 7, -5]) ➞ [-5, -5, -5, -5, 7, -5]

posNegSo …
Create a function that returns the smallest number of changes it takes to transform one number into one

Examples
smallestTransform(399) ➞ 6
// 399 transformed to 999 in 6 steps.

smallestTransform(1234) ➞ 4
// 1234 can be transformed to either 222 …
This is a reverse coding challenge.

Your task is to create a function that, when fed the inputs below, produce the sample outputs shown.

Examples
3 ➞ 21

9 ➞ 2221

17 ➞ 22221

24 ➞ 22228

Notes
If you get stuck, check the Comments for help.
Create a function that calls an object property with procedural like style.

Examples
magic.replace("azerty", "a", "A") ➞ "Azerty"

magic.length("hello word") ➞ 10

magic.trim(" javascript is awesome ") ➞ "javascript is awesome"

magic.normalize("éèê", "NFD") ➞ e ́ e ̀ e ̂

magic.slice([1, 2, 3, 4, 5], 2, 4) ➞ [3, 4]

 …
A word is alphabetically sorted if all of the letters in it are in consecutive alphabetical order. Some examp

Create a function that takes in a sentence as input and returns true if there is at least one alpha …
Find out if a right-angled triangle can be made given some facts about the shape.

Given varying information about a shape, create a function that returns true if the shape could be a right
You will be given an array of numbers and a string stating whether the numbers are angles or sides.
The …
There are two types of potions:

Growing potion: "A"
Shrinking potion: "B"

If "A" immediately follows a digit, add 1 to the digit.
If "B" immediately follows a digit, subtract 1 from the digit.

Create a function that returns a string according to these rules, removing the potions once they've been

Examples

after …
Create a checker board generator, which takes as inputs n and 2 elements to generate an n x n checkerbo

Examples
checkerBoard(2, 7, 6) → [
  [7, 6],
  [6, 7]
]

checkerBoard(3, "A", "B") → [
  ["A", "B", "A"],
  ["B", "A", "B"],
  ["A", "B", "A"]
]

checkerBoard(4, "c", "d" …
Create a function that takes an even number (will always be greater than 4) and return an array of all pai

Examples
primePairArr(10) → ["3+7", "5+5"]

primePairArr(50) → ["3+47", "7+43", "13+37", "19+31"]

primePairArr(100) → ["3+97", "11+89", "17+83", "29+71", "41+59", " …
Write a function that filters out factorials from an array. A factorial is a number that can be represented i

n! = n * (n-1) * (n-2) * … * 3 * 2 * 1

Recursively, this can be represented as:

n! = n * (n-1)!

Examples
filterFactorials([1, 2, 3, 4, 5, 6, 7]) → [1, 2, 6]

filterFactorials([1, 4, 120]) …
Write a function that transforms an array into an array of its differences repeatedly until there exists only

To illustrate:
[5, 1, 9, 3, 4, 0]

[-4, 8, -6, 1, -4]
// 1 - 5 = -4; 9 - 1 = 8; 3 - 9 = -6; etc.

[12, -14, 7, -5]

[-26, 21, -12]

[47, -33]

-80

Examples
nDifferen …
Heading off to the Tree Arboretum of Various Heights, I bring along my camera to snap up a few photos.

A tree is hidden if it is shorter or the same height as the tree in front.

Given an array of …
Create a function that returns the sum of the digits formed from the first and last digits, all the way to th

Worked Example
closingInSum(2520) → 72

// The first and last digits are 2 and 0.
// 2 and 0 form 20.
// The second digit is 5 and the second to last digit is 2.
// 5 and 2 form 52.

// 20 + 5 …
Write a function that sorts each string in an array by the letter in alphabetic ascending order (a-z).

Examples
sortByLetter(["932c", "832u32", "2344b"])
→ ["2344b", "932c", "832u32"]

sortByLetter(["99a", "78b", "c2345", "11d"])
→ ["99a", "78b", "c2345", "11d"]

sortByLetter(["572z", "5y5", "304q2"])
→ ["304q2", "5y5", "57 …
Burrows-Wheeler transform (BWT) is an algorithm which is used in data compression. Given a string text,

Build Burrows-Wheeler- …
Anna is a strange girl. She likes certain boys, but not others. You have to figure out why she likes some, a

Examples
annaLikes("David") → false

annaLikes("Samuel") → true

annaLikes("Gary") → false

Notes

All names / inputs are valid.

Anna likes her own name.

Check the Tests tab for all 100 examples.

Try …

Suppose you are directionally challenged, and get lost easily. As a result, sometimes you walk in circles or

You start at (0,0) and reach yo …

You face 1 out of the 4 compass directions: N, S, E or W.

A left turn is a counter-clockwise turn. e.g. N (left-turn) ➡ W.

A right turn is a clockwise turn. e.g. N (right-turn) ➡ E.

Create a function that takes in a starting direction and a sequence of left and right turns, and outputs the

Examples
 …

Mubashir was reading about Polydivisible Numbers on Wikipedia.

In mathematics a Polydivisible Number (or magic number) is a number in a given number base with digits

Its first digit a is not 0.

The number formed by its first two digits ab is a multiple of 2.

The number formed by …

Rotate an array either left or right according to the number passed.

You are an undercover agent and you're at a cocktail party hosted by an evil secret cartel. You've snuck in

Create a function that returns true if a given inequality expression is correct and false otherwise.

Examples
correctSigns("3 44 > 33 > 1") ➡ false

correctSigns("1 3") ➡ true

Notes
N/A

Let's say that there exists a machine that gives out free coins, but with a twist!

Separating two people is a wall, and this machine is placed in such a way that both people are able to acc

If both people continually spend …

Create a function that given a type of curve will generate an array containing a samples amount of numb

It's easier to see with a visual representation:

graph of the 3 curves

If samples = 3 and curve = "pow", we would sample 3 points along the x axis [0, 0.5, 1] and figure out the

Write a function that replaces each integer with the next largest in the array.

Examples
replaceNextLargest([5, 7, 3, 2, 8]) ➞ [7, 8, 5, 3, -1]

replaceNextLargest([2, 3, 4, 5]) ➞ [3, 4, 5, -1]

replaceNextLargest([1, 0, -1, 8, -72]) ➞ [8, 1, 0, -1, -1]

Notes
Replace the maximum with -1.
Elements in the array will be uniqu …
Create a function that returns true if each pair of adjacent numbers in an array shares at least one digit a

Examples
sharedDigits([33, 53, 6351, 12, 2242, 44]) ➞ true
// 33 and 53 share 3, 53 and 6351 share 3 and 5, etc.

sharedDigits([1, 11, 12, 13, 14, 15, 16]) ➞ true

sharedDigits([33, 44, 55, 66, 77] …
A square matrix (same number of rows as columns) is called row diagonally dominant if "the absolute val

To illustrate ...

[
  [10, 3, 6],
  [2, -9, -6],
  [1, -1, 4]
]

The absolute values from top …
A string contains the word "edabit" if a subsequence of its characters spell "edabit".

Write a function that accepts a string and returns "YES" if the string contains a subsequence of the word

Examples
edabitInString("eddaaabt") ➞ "NO"

edabitInString("edwardisabletodoit") ➞ "YES"

edabitInSt …
In this task, you will create a constructor function table for an input and output table.

Your constructor function will:
Have a property this.data (an array) that your table will be stored and accessed.
Populate the this.data array with an input and output array for every input.

The constructor function will take four arg …

Given two arrays smarr and bigarr, we say smlst is an ordered subarray of bigarr if all the elements of sm

Examples:
[4, 3, 2] is an ordered subarray of [5, 4, 3, 2, 1].
[5, 3, 1] is an ordered subarray of [5, 4, 3, 2, 1].
[5, 3, 1] is not and ordered subarray of [1, 2, 3, 4 …

A "magic square" is a square divided into smaller squares each containing a number, such that the numbe

3x3 Magic Square

Write a function that takes a 2D array, checks if it's a magic square and returns either true or false depen
 …

The Fibonacci sequence is a classic use case for recursive functions since the value of the sequence at a g

Write a function named fib that takes an integer n as its input. It should return the Fibonacci sequ …

Create a function that takes two parameters:

An array with items ranging from numbers and strings.
An array with items ranging from numbers, strings and and anonymous function.

The function should return only the items from the first array that satisfies the anonymous function pres

Detail
#filterAr …

In statistics a stem-and-leaf plot is a graphical representation of values distribution in a dataset, usually i

1) You must separate each value in two parts: the stem, equal to all number d …

Binary search is the fastest method to search a sorted array.

Imagine you are an undercover agent and you're at a cocktail party hosted by the bad guys. You sneak int

You are tasked with grabbing some blog posts from an API and formatting them using markdown, so that

You already figured out how to get the posts and the associated users from the API, now you just need to

Create a function that takes the current day (e.g. "2019-09-30"), an array of date objects and returns the

Examples
currentStreak("2019-09-23", [
  {
    "date": "2019-09-18"
  },
  {
    "date": "2019-09-19"
  },
  {
    "date": "2019-09-21"

```
  },
  {
    "date": …
```

Create a function that takes an array of date objects and return the "longest streak" (i.e. number of cons

Example
longestStreak([
```
  {
    "date": "2019-09-18"
  },
  {
    "date": "2019-09-19"
  },
  {
    "date": "2019-09-20"
  },
  {
    "date": "2019-09-26"
  },
  {
    "date": "2019-09-27"
  },
  …
```

Create a function that takes a string containing money in dollars and pounds sterling (seperated by comm

For the input string:

$ is represented by d.
£ is represented by p.
thousands are represented by k.

i.e. d4k = $4 * 1000 = $4000 and p40 = £40

Examples
addBi …

Maya numeral system was vigesimal (base 20) and positional: units, tens, hundreds (and so on) were rea

$39 => (1 \times 20^1) + (19 \times 20^0)$
$815 => (2 \times 20^2) + (0 \times 20^1) + (15 \times 20^0)$
$16125 => (2 \times 20^3) + (0 \times 20^2) + (6 \times 20^1) + …$

The goal is to test if a consecutive sequence is formed. A consecutive sequence is defined as sequence of

[3 5 1 -5] => [3+4 5+3 1+8 15-5] = [7 8 9 10] => true
[4 3 8 15]

Also important is …

Given an amount of money and an array of coins denominations, create a function that counts how man

Examples
coinsCombinations(4, [1, 2]) ➞ 3
// 1+1+1+1 = 4
// 1+1+2 = 4
// 2+2 = 4

coinsCombinations(10, [5, 2, 3]) ➞ 4

coinsCombinations(11, [5, 7]) ➞ 0

Notes
Order …
A fulcrum of an array is an integer such that all elements to the left of it and all elements to the right of it

To illustrate:
findFulcrum([3, 1, 5, 2, 4, 6, -1]) ➞ 2
// Since [3, 1, 5] and [4, 6, -1] both sum to 9

Examples
findFulcrum([1, 2, 4, 9 …
Create a function billCount that takes two arguments. The first argument is the amount of money the use

billCount(1001, [1, 10, 20])
User Money = €1000 and Bills Available = [€1, €10, € …
Create a function that takes a start position of the chess knight and return all possible moves.

 Alternative Text
 Alternative Text
 Alternative Text
 Alternative Text

Formating
Letters (A, B, C, D, E, F, G,H) must be on Uppercase.
On result moves must be sorted alphabetically (numbers too).
Moves must be separated by spa …
In linear algebra, the determinant is a scalar value that can be computed from the elements of a square r

Create a function that takes a square 2D array as an argument and returns a number (determinant).

Examples
getDet([
  [0, 1],
  …
You work in a factory, and your job is to take items from a conveyor belt and pack them into boxes. Each

Example

boxes([2, 1, 2, 5, 4, 3, 6, 1, 1, 9, 3, 2]) ➞ 5

// Box 1 = [2 …
You are given an array of scores. The even-indexed numbers are your scores at each turn. The odd-index

Create a function that turns this list of scores into an array of who is currently winning.

To illustrate (You - Y, Opponent - O):

Scores: [5, 15, 17, 35, 16, 40, 66, 12, 10, 9]

Y s …
Create a function that reverses letters in a string but keeps digits in their current order.

Examples
reverse("ab89c") ➞ "cb89a"

reverse("jkl5mn923o") ➞ "onm5lk923j"

reverse("123a45") ➞ "123a45"

Notes
N/A
Musical instruments have a range of notes to play, some instruments having a much larger range than ot

Given the following ranges for the instrument, create a function that returns true if a given note is within

Instrument	Range
Piccolo	D4-C7
Tuba	D1 …
Create a function that can convert from normal notation to tally-mark notation and vice versa. In tally-ma

The function will look like this: switchNotation([current scores], desired notation)

Ex.1 Normal: 3, 24, 4, 9
Ex.1 Tally: 3, 55554, 4, 54

Ex.2 Norm …
Create a function that will count the number of digits of a number. Conversion of the number to a string

Examples
digitsCount(4666) ➞ 4

digitsCount(544) ➞ 3

digitsCount(121317) ➞ 6

digitsCount(0) → 1

digitsCount(12345) → 5

digitsCount(1289396387328L) → 13

Notes
All inputs are integers but some are in e …
Write a function that takes fuel (liters), fuelUsage (liters/100km), passengers, airCon (boolean) and return

fuel is the number of liters of fuel in the fuel tank.
fuelUsage is basic fuel consumption per 100 km (with the driver inside only).
Every additional passenger is increasing bas …
Create a function that takes an expression exp and an upper limit n as arguments and returns the sum of

Examples
summation("n", 10) → 55

summation("1/n", 50) → 4.5

summation("n**n", 6) → 50069

Notes
Assume the lower limit is n = 1.
Round your answer to …
Write a function that returns true if the first string is the second string stretched, and false otherwise. A s

Examples
isStretched("pppaaannndddaaa", "panda") → true

isStretched("sssshhiipp", "ship") → false

isStretched("magnet", "magnet") → true

i …
Create a function that takes an array of player 1's words p1 and an array of player 2's words p2. Player 1
Create a function that returns the whole of the first sentence which contains a specific word. Include the

Examples
const str = "I have a cat. I have a mat. Things are going swell."

sentenceSearcher(str, "have") → "I have a cat."

sentenceSearcher(str, "MAT") → "I have a mat."

sentenc …

Write a function that returns true if it's possible to build a phrase s1 using only the characters from anoth

Examples
canBuild("got 2 go", "gogogo 2 today") → true

canBuild("sit on top", "its a moo point") → true

canBuild("long high add or", "highway road go long") → false

canBuild("fill tuck mid", "truck f …
Create a function that takes a string of words and moves the first letter of each word to the end of it, the
Body Mass Index (BMI) is found by taking your weight in kilograms and dividing by the square of your hei

Underweight: <18.5
Normal weight: 18.5–24.9
Overweight: 25–29.9
Obesity: BMI of 30 or greater

Create a function that will accept weight and height (in kilos, pounds, meters, or inch …
You're head of security at a casino that has money being stolen from it. You get the data in the form of st
If there is no guard between thief and money, return "ALARM!"
If the money is protected, return "Safe"

String Components
x - Empty Space
T - Thief
G - Guar …
Write a function that returns a character mapping from a word.

Examples
characterMapping("abcd") → [0, 1, 2, 3]

characterMapping("abb") → [0, 1, 1]

characterMapping("babbcb") → [0, 1, 0, 0, 2, 0]

characterMapping("hmmmmm") → [0, 1, 1, 1, 1, 1]

Notes
Start your counter at 0, and increment by 1 each time you encounter a n …
Given a positive number x, if all the positive divisors of x (excluding x) add up to x, then x is said to be a p

For example, the set of positive divisors of 6 excluding 6 itself is (1, 2, 3). The sum of this set is 6. Therefo

Given a positive number x, if all the positive divisors o …
Write a function that takes initial speed (v in m/s) and throw angle (a in degrees) and returns the maximu

Examples
javelinThrow(36.7, 45) ➝ "Ymax=34m, Xmax=137m"

javelinThrow(51.3, 20) ➝ "Ymax=16m, Xmax=172m"

javelinThrow(100.1, 89) ➝ "Ymax=511m, Xmax=36m"

Notes
 ...
Given an array of math equations (given as strings), return the percentage of correct answers as a string.

Examples
markMaths(["2+2=4", "3+2=5", "10-3=3", "5+5=10"]) ➝ "75%"

markMaths(["1-2=-2"]), "0%"

markMaths(["2+3=5", "4+4=9", "3-1=2"]) ➝ "67%"

Notes
You can expect only addition and ...
Mubashir needs your help to equalize (make all array elements the same) an array.

Create a function that takes an array of integers arr and a constant c and returns minimum number of op

Rules
You can choose any integer x to equalize the given array.
Pick a contiguous subarray o ...
Given a tic-tac-toe board, create a function that determines whether X won, O won, or there's a tie.

The board is represented as a 2-dimensional array. A board does not have to be completely filled. Blank s

Examples
whoWon([
  ["X", "O", ...
0 represents the dog.
Each array represents a house and each 1 represents an empty room.
Return the house and the room where it is located, there can be only one dog lost per building.

Examples
lostDog([1, 1, 1, 1, 1, 1], [1, 1, 1, 1, 1, 1], [1, 1, 1, 1, 1, 1], [1, 1, 1, 1, 1, 1])
➝ "Dog not found!"

lostDog([1, 1, 1, 1, ...
Given an array of 10 numbers, return whether or not the array is shuffled sufficiently enough. In this case

Examples
isShuffledWell([1, 2, 3, 5, 8, 6, 9, 10, 7, 4]) ➝ false

// 1, 2, 3 appear consecutively

isShuffledWell([3, 5, 1, 9, 8, 7, 6 …
The number 10213223 is self-descriptive. Count the number of zeros, ones, twos, and threes that are cor

Write a function that returns true if its argument is a self-descriptive number, false if not.

E …
Write a function containing an expression, in terms of n, for the nth term of the sequence that has the fo

2, 6, 13, 23, 36, 52 ...and the sequence continues.

Examples
seq(1) ➞ 2

seq(2) ➞ 6

seq(6) ➞ 52

Notes
The parameter n is always >= 0.
Create a function that takes two arrays: groups and students. It should return one array with groups mer

Examples
getGroupsWithStudents([
 {
   id: 1,
   name: "G1",
   studentIds: [2, 1]
 }
], [
 {
   id: 1, …
The Euler's phi function (from the Greek letter φ, also called Euler's totient function) counts the positive i

divisors of 6 ➞ [1, 2, 3, 6]

divisors of 5 ➞ [1, 5] …
Mubashir was reading about Proper and Improper Fractions on Wikipedia. He concluded that if n is the n

For example 5/16 is a proper fraction, while 6/16 is an improper fraction, as both 6 and 16 ar …
A robot has been given a list of movement instructions. Each instruction is either left, right, up or down, 1

To illustrate, if the robot is given the following instructions: …
Create a function that takes an array of numbers and returns the greatest common factor of those numb

Examples

gcd([84, 70, 42, 56]) ➞ 14

gcd([19, 38, 76, 133]) ➞ 19

gcd([120, 300, 95, 425, 625]) ➞ 5

Notes
The GCD is the largest factor that divides all numbers in the array.
Write a function that accepts a string and an n and returns a cipher by rolling each character forward (n >

Note: Think of the letters as a connected loop, so rolling a backwards once will yield z, and rolling z forwa
Write a function that, given the start startNum and end endNum values, return an array containing all the

Examples
inclusiveArray(1, 5) ➞ [1, 2, 3, 4, 5]

inclusiveArray(2, 8) ➞ [2, 3, 4, 5, 6, 7, 8]

inclusiveArray(10, 20) ➞ [10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20]

 …
Create a function that returns an 2D array where the elements have been rotated 90 degrees. The provic

The desired output would return a new 2D array where the contents of the original array have been rota
Create a function that, given

numbers are passed as parameters. The first parameter divided by the second parameter will have a rem

name with string "Edabit" and stores it in a variable called result. He needs your help to fix this code.

would like to greet him slightly differently. She added a special case in her function, but she made a mis

er the total number of characters in the first string is equal to the total number of characters in the sec

our goal is to submit a function as minimalist as possible. Use the tips in the tips section below.

eate a function that returns the number of complete walls that I can paint, before I need to head to the

at converts integers into strings and a function called stringToInt() that converts strings into integers.

s (on / off). In other words, for a given number of switches, how many different combinations of on and

in imposter is 100 × (i / p) where i is the imposter count and p is the player count. Make sure to round th

:e of) booleans. For example, 1 (or any number other than 0) is often equivalent to true, and 0 is often e

our goal is to submit a function as minimalist as possible. Use the tips in the tips section below.

eds, 30% after tax income on wants, and 20% after-tax income on savings or paying off debt.

ssing, and bread is stuffed in a bottle. What is going on here? The candy should be in plastic and the brea

he string length is less than three characters, the front is whatever is there. Return a new string, which is

ted twice with an ellipsis ... and space after each, and then the word is pronounced with a question mar

If there is no given string, you will not return "Do not do anything." Do not check the examples to know

er than the square's perimeter and false if the square's perimeter is greater than the circumference of t

g default values. Use ES6 object destructuring to add a default value of 1 to the one variable. Ignore the

rs, representing the dimensions of cuboids a and b. Find the difference of the cuboids' volumes.

pizza, he calculates its radius and its height. Now, he wants to know from you the total volume of pizza th

wo methods to fix the code. One method returns a boolean if there is a match. The other method returr

e'll be able to bring home more stuff than Will. Taking this as a challenge, Will refutes and a competition

(the hourly wages of each programmer) and returns the difference between the highest-paid programm

x in the array added to itself. This means you add 0 to the number at index 0, add 1 to the number at inc

ibers representing the endpoints of a closed range — and return the number limited to this range.

nd Hard, where users get points for completing challenges. An Easy challenge is worth 5 points, a Mediu

p in the car is less than the maximum weight maxWeight the car is allowed to carry. Otherwise, return fa

dulus operator is a way to determine the remainder of a division operation. Instead of returning the res

tem or binary numeral system. Given an array of ones and zeroes of a binary number, return the equiva

stolen at all and you failed to mention this detail to them. This is a fraud attempt! You freeze and mumb

date represents a video that was uploaded on that day. Return the number of uploads for a given month

rn the result of the corresponding mathematical function on both numbers. If the operator is not one of

alculate how many years ago the father was twice as old as his son, or in how many years he will be twic

ach year of their total age. They will only be able to blow out the tallest of the candles. Count how many

darts game is the simplest of all games. The score of a single turn is calculated based on the distance fr

e given an array of strings which make up a shape in the compiler (i.e. a square, a rectangle or a line).

vith special characters. For example, to get bold text, you surround the text with double asterisks, like th

ercentage formatted string, and rounded to one decimal. To calculate profit margin you subtract the co

be checked if they are valid. The unit of measure is valid when it is either "L" (liters), "PCE" (pieces) OR

ng. For example, if you're given 3 as input, your function should return "March", because March is the 3

he pattern in alphabetical order. If the pattern is an empty string, return all the strings passed in the inp

d words and outputs an array containing 1s (correctly-typed words) and -1s (incorrectly-typed words).

oduct. You are given an object containing the cost price per unit (in dollars), sell price per unit (in dollars

needs 4 wheels, 1 car body, and 2 figures of people to be placed inside. Given the total number of wheel

ls repeating while the second argument (times) is the number of times the item is to be repeated. Retur

. Here, you must generate your own function to satisfy the relationship between the inputs and outputs

actually looked like (probably not)! The code given will output the same middle two lines as in the image

s not mutate the original array. Fix the code so that the results are no longer mutating the array.

l count of numbers in the group. Given a sorted array of numbers, return the mean (rounded to one dec

passed to the function. For example, if the input is 4 then your function should return 10 because 1 + 2

:e a function that accepts a Date object and returns true if it's Christmas Eve (December 24th) and false

convert is simple: ((2) means base-2 and (10) means base-10) 010101001(2) = 1 + 8 + 32 + 128.

eed to check time correctness yet, so 25:99 can also be a valid result. The regexp should not match 123:

? When you want to control the outcome of an asynchronous operation. All you have to do is wrap the

ain and the total resistance, RT, of the circuit must be equal to the sum of all the individual resistors add

ces p1, p2 and p3, which will be initialised with the attributes name and age, return a sentence in the fo

. Create a function that has the drinks array as an argument and return the drinks object sorted by price

htly higher than its counterpart (which means that evaluating the value > the other value will return tru

f an expression that manipulates the two numbers to get to the output. What you are supposed to do is

o speed up bureaucracy, you try to sign for your spouse as well. Unfortunately, the document is still pro

ny characters that are NOT inside of brackets [ ]. You differentiate a negated character set from a regula

be defined as the total of the 8 numbers immediately surrounding the number n on the grid, including r

t parameter txt is the string to be repeated and the second parameter is the number of times the string

ne is limited to cover a particular maximum in losses (for example, 50,000€). You send a bill to your spou

achieve by summing up the total number of points for all the tiles in their hand. Each hand contains 7 sc

ways be equal to 1, up to a variable given higher bound (including the bounds in the sequence).

he number is symmetrical or not. A number is symmetrical when it is the same as its reverse.

challenges on Edabit that deal with recursion and algorithmic processes, but these particular challenge

Steve's snails are all a bit stronger than Maurice's, Maurice has a trick up his sleeve. His plan is

ntation on regular expressions special characters. You can check my Collections under Basic Reg Ex in my
ice. If you advance your piece onto the same tile as another player's piece, both of you earn a bonus.

vill be in the form (letter l, number num) where the letter will be either "s" for square, or "c" for circle, a

on which takes a new argument, and returns the sum of the "base number" and the new argument.

e circles constructed must have two methods getArea() (PI\r^2) and getPerimeter() (2\PI*r) which give

not you are able to pay for the item. Change will always be represented in the following order: quarters

can clearly see that this array can reasonably be sorted according to "the content of the elements" as:

is a .flat() method in the Array prototype). In other words, I want to transform this: [[1, 2], [3, 4]] into [1

could take, visiting each city once before returning home. Return the total number of possible paths a s

linder itself doesn't weigh anything. The desired output should be given in kg and rounded to two decim

sign-up sheet doesn't directly state the marathon's length. Instead, the marathon's length is listed in sm

the given array. Create a function that takes an array and returns the sum of all numbers in the array.

Solve the riddle of what Mubashir's function is by having a look at some of the examples below.

es have no particular direction (like a two-way street) whereas in a directed graph, each edge has a direc

rn the total amount of the burglary (number). If nothing was robbed, return the string "Lucky you!".

ack how often the number of miles he runs this Saturday exceeds the number of miles run the previous

e simply referred to as the basic arithmetic operations. The variables have to be defined, but in this chal

squares of the two smallest integers must equal the square of the largest number to be validated.

e return value is boolean. Two vectors a and b are orthogonal if their dot product is equal to zero.

m the concatenation of an integer n with its successor is a perfect square, then n is a Sastry Number.

ssed to other functions. There was a time when callbacks were used to handle async operations, but we

jobs. Your task is to create an object displaying each person to their respective occupation.

and it's your task to end this. You have to determine which group sums larger: the evens, or the odds.

nswer to a secret question is partially obscured in some way. Since someone could look over your shoul

exactly 6 digits. Your task is to create a function that takes a string and returns true if the PIN is valid and

does save an appreciable amount of time. However, the same cannot be said about short distance trips.

ut with all five or more letter words reversed. Strings passed in will consist of only letters and spaces. Spa

Each day name must be one of the following strings: "Sunday", "Monday", "Tuesday", "Wednesday", "T

tion must take an array of numbers as its parameter, and return an array of the numbers divided by the

nd returns the new string. The only non-alphanumeric characters allowed are dashes -, underscores _ ar

en will share the remainder of the apples. Create a function to determine the number of whole apples h

occur at least twice. Your code should be general enough to pass every possible case where "zip" can o

f three use "Fizz" instead of the number and for the multiples of five use "Buzz". For numbers which are

. Here, you must generate your own function to satisfy the relationship between the inputs and outputs

e "greedy", meaning that they try to match as much of the string as possible. The ? character after the q

s sorting numbers with the least amount of digits first, up to the numbers with the most digits.

A after transcription. DNA has the bases A, T, G and C, while RNA converts to U, A, C and G respectively.

=East), he will walk for one minute in each direction. Determine whether a set of directions will lead hin

d false if it's not. Assume any number between 0-9 (in the appropriate spots) will produce a valid phone

e with the German word "Wurst," unless—of course—the sausage is already a type of German "Wurst" (

sentation of that signal into an analog output. An 8 bit converter can represent a maximum of 2^8 diffe

wer case, whichever takes the fewest number of steps. A step consists of changing one character from l

sing precision. However, with JavaScript, normal numbers only can go up to 9007199254740991. To deal

; the coordinates of both the points, you have to apply the Pythagorean theorem to find the distance be

, then remove the first element of the array. The function should then return the updated array.

e number of nBalls bowled by a bowler and calculates the number of overs bowled by him/her.

our task is to create a function that returns whatever number c isn't, out of a and b. So, if c is equal to a,

ne element, and false otherwise. In other words, determine if the second array is the first array shifted

rds should be separated by one space, and there should be no spaces at the beginning or end of the ser

. XOR works with two arguments. It turns both arguments into their binary representations, and for eac

using recursion.The student came up with the solution but the solution does not seem to be correct. He

s and returns an array of items without any items with the same value next to each other and preserves

· of months they follow this routine nM and calculates the duration in minutes and seconds that person

valid price (integer or float, and greater than or equal to zero). Products with a price of 0 are free and c

nove the most boring exhibitions. She gives them a rating, and removes the one with the lowest rating.
bring system. A player's first initial ("A", "B" or "C") denotes that player scoring a single point. Given a str

ce a higher two-digit number from your cards than your opponent. Return true if your cards win that rou

ber greater than or equal to n from the array. The probability should be expressed as a percentage, rour

in the second array, the second element in the first array with the second element in the second array, e

ng. Note that multiple digits next to each other are counted as a whole number rather than separate dig

I. The company also gives the design for how the vessel should look (the shaded portion filled in the ima

digit from 0-9 or an alphabetic character from A-F. All alphabetic characters may be uppercase or lower

to n characters in length and return the first letter of each, capitalised and overall returned as a single st

any character that's not a vowel (like special characters or spaces), treat them like consonants.

, food production grows by a fixed amount, but population grows by a percentage. So, the food supply

dictionary of alphabet scores is available in the Code tab. Add up the letters of your name to get the tot

en an object of the stolen items and an item name, return a copy without that item on the list.

e letters a, b, c, d, e. For the first year, the groups are 1a, 1b, 1c, 1d, 1e and for the last year, the groups a

sitioned in the very centre of the string. This means the number of spaces on both sides should be the sa

players (rock, paper or scissors), first parameter from first player, second from second player. The functi

the original array. The nested array must be filled with the corresponding element (string or number) ir

on the sum of the numbers. The scale will tip on the direction of the largest total. If both sides are equal,

ggest, return the word closest to the start of the sentence. Characters such as apostrophe, commas, per

signment to write a function that checks whether an input date as a string is in the format yyyy/mm/dd.

ı "Eda" instead of the number and for the multiples of five, return "Bit". For numbers which are multiple

ber, an operator symbol, and another number. Return the mathematical result of that expression.

lay that passes, their base amount doubles, so they earn two pennies on the second day and four penni

ents both, return "both". Input will be a 2D array, with 1 representing a piece of rock, and 0 representin

nether there is a pair of numbers that add up to the target value v, where one number comes from one

arrows indicating the number of tiles to move. The player should move either left or right, depending or

ıg numbers (e.g. 0, 1, 1, 2, 3, etc). Using 0 and 1 as the starting values, create a function that returns an a

w success percentage? If Sally makes 50% of her free shot throws, then Sally's probability of making 5 in

ents. The first element is the numerator and the second element is the denominator. Return the sum of

. For example the point 3 overlaps with the interval [2, 4] (it is inside) and [2, 3] (it is on the bo …

suspects the test cases are wrong, but his calculator is saying they're correct! What's happening?

p is even, the median is the average of the middle two numbers. Given a sorted array of numbers, retur

whose $\beta = v/c$ is very close to 1). But a number like 0.9999999999999999999 is inconvenient to work w

, the document they sent is incomplete as there is only one room present. As a good citizen that you ar

ful, but what good are those if we don't have access to those results. Thus we have the then function wl

s ! into a sentence only ending with one without changing punctuation in the middle of the sentences.

racted of two matrices A and B will be a matrix which has the same number of rows and columns as A ar

est. Solve the riddle of what Noddy's function is by having a look at some of the examples below.

a different way. For example, uppercase letters "H", "I", "N", "O", "S", "X", "Z" after rotation are not ch

mber line starts at the first value of the array, and increases by 1 to the end of the number line, ending a

ular content. It's set up in such a way that you cannot like and dislike a video at the same time.

for establishing how to assign the spots to the letters, you will use the positions contained in the second

s challenge, take the string of letters before the word "in", and insert it into the 2nd letter position of th

r that can be written as the sum of its factors, (equal to sum of its proper divisors) excluding the number

ling characters on a given array. You may want to solve this challenge before proceeding further.

function that checks to make sure this 3x3 square contains each number from 1-9 exactly once. Make s

correctly alliterated if all words strictly greater than 3 characters begin with the same letter.

he equation does not have a solution, return "No solution". If any number satisfies the equation, return

epresented as a string containing only the characters "A", "C", "G" and "U". Since RNA can only (canonic

1 "even" if the sum of even digits is greater than the sum of odd digits, and "equal" if both sums are the

nd array to establish each position of the letters in the first array. Return a string from the unscrambled

status you said at the time. Given an object with a list of the stolen items, return a copy of that list witho

commands. Each command moves the robot one step in the given direction. The robot is designed for o

oms can introduce different elements with Hydrogen at high temperatures and inside a pressurized char

epresented as a string containing only the characters "A", "C", "G" and "U". Since RNA can only (canonic

. Here, you must generate your own function to satisfy the relationship between the inputs and outputs

uding the last letter. Note that if the range is given in capital letters, return the string in capitals also!

d on the table. The function will return true if the player can make a play, or false if the player has to dra

the cookies produced for the day is given in an array. All that's needed is a regular expression that will m

20). Given a date in dd/mm/yyyy format, return true if the date is palindromic in both date formats, oth

al wires. An example schoty would have 7 wires, each holding 10 beads. Each bead, when moved to the

the sum exceeds 21, return true and if the sum is under or equal to 21, return false. Values of the cards

included in the other given arrays using SameValueZero for equality comparisons. The order and refere

des were immediately sent over to our code-breaking base over at Bleckley Park ;) for analysis. The team

rty returns a function that that compares the given object and a path, which is a key-value pair, then de

with writing recursive functions by covering the Euclidean Algorithm. The "Euclidean Algorithm" is a me

kes (hits) that a good player would use to complete a hole. Golf also uses different terms for a player bei

polygon with n sides with the angles given. Remember that angles must be equals or under 180° and ove

rk, you will get your first paycheck firstMonth. For every month after, your paycheck will be multiplier ti

logarithm is to find out what power you have to raise the base to get the number next to the base. For

ut there's a catch! The Blueberry Cæk™ you're using is a (rather extreme) discount model, and only has

timer (starting from the left). All microwave ovens have the functionality where you can hit a "+30" butt

or non-binary. They can be used to match emojis, punctuations, letters (even letters from specific langu

ıl (expected) distribution within reasonable margins. For example, to figure out if a die is loaded you cou

ɔded ASCII text. Characters can be in the range of "00000000" to "11111111", which means every eight

nat and the numbers are separated by spaces. Someone has already created a function to output positiv

matching colors there are. For example, there are 7 socks with colors [1, 2, 1, 2, 1, 3, 2]. There is one pai

venting the heat from building up too much (which can cause a fire). The ideal fuse to choose is higher tl

either camelCase or snake_case. If you're not sure what these terms mean, check the Resources tab abo

er like this. Notice how the text "Go to the challenges!" appears when hovering over the link.

operly display the image, join up the groups with the newline character \n and return the output string.

nount of empty squares. The image shows the squares with step 1, 2 and 3. The return value is the numk
2^64-1 (2 to the power of 63, not XOR). With the standard technique it would be O(2^64-1), which is m

s, and spades), so that there are ten cards per suit: the Ace, the numbered cards from 2 up to 7, and the

which is invoked to compare elements of the array to values. The order and references of result values a

apture your opponent's queen. Your location and your opponents' location are the first and second elem

t place a larger disk onto a smaller disk. To play the game or learn more about the Tower of Hanoi, chec

ı be defined as: sub-array of length 3, with the first and last digits being the same and the middle digit b

ı of all of its digits is odd, and a number is Evenish if the sum of all of its digits is even. If a number is Odc

integers, that is, a number of the form n(n + 1). Create a function that determines whether a number is

f items in a group, and returns the number of permutations (combinations) of items that you could get b

ct, where the keys are the unique elements and the values are the frequency in which those elements o

nd so on. Your function needs to create an a × b matrix. a is the first argument and b is the second.

to the numbers in the array passed as an argument. The second argument of the function represents th

nutations for n unique items. For instance, 5 unique items could be arranged in 120 unique ways. 120 ha

0s based on the string argument's words. If any word in the argument is not equal to "zero" or "one" (ca

wers, in this case) of your hard work. During the growth phase, you added water and fertilizer, and kept

little knowledge of how to choose a good bottle. Being a very frugal gentleman (yet disliking looking like

en you place the \ before the character. The . is the only exception. It requires no \ and it is a wildcard

·digit binary number to light the display. Consider the six-digit binary number as an incoming input from
r to the factorial function, but rather than successively multiplying positive integers, the function only m

:ument but also each sub-list corresponding to each room in your house where the items were stolen.

will have a volume of n^3, the cube above will have volume of (n-1)^3 and so on until the top which wil

the input number. When the sum of the digits consists of more than one digit, repeat summing until you

utive sequence is a sequence without any gaps in the integers, e.g. 1, 2, 3, 4, 5 is a consecutive sequence

the mix. For example, -13 % 64 = -13, when the actual answer is 51. Create a function to fix this. It shoul

ve can use to handle errors or rejected promises.   It is generally a good idea to have an error handler at

word of the sentence follows a columnar order from the top to the bottom, instead of the usual left-to-

n, and return "Repent! X days until the Apocalypse!" (X being the index). If not, return "Crisis …

ficient way that change can be made using USD quarters, dimes, nickels and pennies. Your function shou

es "x" in (?\x) and stores it on the groups property of the returned matches under the name specified by

the base from which the remaining arrays will be checked to see if they have the matching values. If the

he highest sum of numbers to the other half of the array. If the sum of the first half equals the sum of th

() functions behind the scenes, they also return new promises. So if that's true then you could do somet

total amount of cargo and the types of cargo holds in the ship as arrays, create a function that returns t

values, you have to convert the whole word into a decimal number from a base equal to ten plus the p

ining all the prime factors, sorted in ascending order. Remember that 1 is neither prime nor composite

switches the row and column indices of the matrix A by producing another matrix, often denoted by A^

thm in your function. The target number will be from 2 through 97. If the target is prime then return "ye

ed from the beginning. Elements are dropped until the predicate returns falsey. The predicate is invoke

the closest to num. If there are two numbers equidistant from num and divisible by n, select the larger

e real type of a value (JavaScript typeof doesn't return the real object type of values and you need to fix

ɔle, a would be 1, b would be 2, etc. So to add b and c, take 2 + 3 = 5, and then get the fifth letter of the a

on should return a single, flat, one-dimensional, array with all elements. Here are the conditions:

represented as an array of 5 cards. A full house is defined as a pair of cards and a three-of-a-kind.

ng on the specifier s. The specifier will be "odd" for items on odd positions (1, 3, 5, ...) and "even" for iter

ta set analysis. For example, given two arrays A=[15, 15, 15, 14, 16] and B=[2, 7, 14, 22, 30] the mean is

pe. In this challenge, you need to give JavaScript Strings a swapCase() function, which will return a new
rs form a sequence of natural numbers that occur in various counting problems, often involving recursi

y counting who won the most rounds. The winner of the round is whoever scored the most points in th

vard. Examples include "racecar" and 12321. Given a positive number n, check if n or the binary represe

eater than two (as to say that repeating digits need to be placed as an adjacent pair or a greater group,

n the door of the safe. The dial is marked with clockwise increments between 0 and 99. The three-numb

one, saying the phrase "Loves me" and "Loves me not" when determining whether the one that they lo

a parssseltongue (a reference from the Harry Potter universe; the language of ssserpents and those wh

ınonymous name feature will create an alias that consists of two capitalized words beginning with the sa

m of two numbers is not determined by the sum of their individual digits, but by the highest digit of the

(pt2) The function has three arguments, two of which are objects with x & y values, and the third being

t upper and lower case characters of the same letter as being identical (e.g. a exists in Anna twice, not o

fore it in the array. If all numbers in the array pass this test, return true. Return false otherwise.

e messages are starting to glitch. Some of the lower case letters are being replaced by their position in t

lying a constant traction force at both ends? Every part (or letter, in this case) of the elastic will expand,

contains user votes per star, so the first element [0] contains the number of 1-star ratings and the last e

. Here, you must generate your own function to satisfy the relationship between the inputs and outputs

d 2 digit second. If any of the value has only signle digit, you must use zero prefix, so that the result strin

l into hex. You will need to return the first index of the needle within the hex encoded string.

ontain the terms "four", "hundred", and "thousand", so the uban number following 99 is 1,000,000.

iven index is dependent on the sum of the last two values. However, the recursion tree created by solvi

of metachronal rhythm achieved in a packed stadium when successive groups of spectators briefly star

array as the first argument, and a second optional argument that is a flag to ignore the order of the arr

"west" wherever there is "east". Format the string according to the input. Check the examples below t

IP is valid or false if it's not. For information on IPv4 formatting, please refer to the resources in the Res

mes the sum of itself and that number. Your job is to create a function that returns the final array after

e (either increasing or decreasing). A straight sequence has an equal step between every pair of digits.

store. You are working on a script that will notify you whenever the new games are available for downlo

are found; after splitting the string in groups, and reversing every group with more than a letter, you'll ob

the results of running each element of collection thru iteratee. The corresponding value of each key is th

of objects like { name: "John", avgNote: 4 }. If student has no notes (an empty array) then let's assume a

℩ is present in the BST class. Here you have to find the max value, min value of the whole tree.

ɪve to take. At the moment your GPS (or the person next to you) shouts that you should leave the round

IV, some 17 light-years distant. Though not equipped with warp drive, Jack's ship is still capable of attair
. Here, you must generate your own function to satisfy the relationship between the inputs and outputs

pe. The temperature types can be Celsius, Fahrenheit, or Kelvin. Return the temperature type (in the arr

wards system (Pizza Points™) that can be tweaked in the future. The rules are simple: if a customer has

scending order (number then letter). Array will contain equal amounts of integer numbers and single ch

he programming skills of patients. Various tests are carried out on different programmers: for a week sc
An array's slices are groups of consecutive values that add up to a maximum of 100. No slice's total sum

exactly vice versa to repeating a string function (i.e. if a string "k" is given and asked to make a larger str

containing one fewer colour than the last, are generated by considering the two touching colours in the
ray of numbers of varying lengths. The function should return "Linear", "Quadratic" or "Cubic".

comprised only from elements a and b and the occurrences of these elements are swapped between t

on the number you're given (second argument). If you're given the arguments [1,2,3,4,5,6] and 2, you wc

ays to create a sigil, but the most common is to write out a specific desire (e.g. "I HAVE WONDERFUL FRI

ch student has the best Test Average. The key will be the student's name and the value will be an array

ounds [0, n] (inclusive), where n is smaller than or equal to the array's length, and false otherwise.

er object is moving towards point A at constant velocity vb (in km/hr). Knowing this and the distance be

potentially incomplete answer key and the student's answers, write a function that determines whether

s worth, and return the maximum profit that could have been made by buying stock on day x and selling

e. The string will be composed of + and = symbols with several characters between them (e.g. "++d+===

expensive item in the shopping cart. The discount will be calculated on just one item, even if the custom

square ends in 269,696?". He thought the answer was 99,736 whose square is 9,947,269,696. Was he ri

;pondence with Leonhard Euler in 1742, German mathematician Christian Goldbach made a conjecture,

n the pair as an array, sorted in ascending order. If multiple pairs have the same difference, return the p

lays from their mythological creation date (11 August 3114BC in the proleptic Gregorian calendar is the

nd returns an array of these names sorted by the length of their last names. If the length of multiple last

ook information. You need to sort the objects in alphabetical order of the author's last name.

structure: [[value, firstindex, lastindex, timesrepeated], ..., [value, firstindex, lastindex, timesrepeated

engths then the output should be the length of the shorter string. Cut the length of the longer string to t

in phrases, but the phrases are somewhat strange; they do not have an order and they have numbers. H

mber, larger number], she moves on. If the first pair is ordered [larger number, smaller number], she sw

characters, each with their own level of attack power, defense, and speed. There are also five types of

ll the letters in y at the same frequency. For example, "dear" is an anagram of "read" and "plead" is an a

ou only have to come up with the regular expression. The replace function is already done (see the Tests

nt combination to the target combination. One turn is equivalent to rolling a number forwards or ba …

nt of times, shifting its items as in a conveyor belt. At the end of the last array inside the matrix, there's

an array or object, and a function that will check each item in the collection, it returns an array containi

les of alphabetically sorted words: abhors (a is before b, b is before h, h is before o, etc.), ghost, accent,

Ideally, I'd want to take a picture of as many trees as possible, but the taller trees may cover up the sho

, BWT of text is a modified version of the string with same length as text. It can then be used to efficient

r make U-turns. You might take a sub-optimal route. Create a function that returns the difference in leng

nto the main office to look at the files. They are organized according to an index system. You decide to r

ess it. Spending a coin in this machine will give the person on the other side 3 coins and vice versa.

lue of each entry in the main diagonal is strictly larger than the sum of the absolute values of the other e

iven index is dependent on the last two values. More precisely, it's dependent on the sum of the previou

mplemented for a small set of values. In this exercise we'll build a simple plot for positive integer values

to the drug lord's office looking for an important document. Fortunately, the drug lord has organized his
: your coworker (who has no idea what markdown is) can publish them with ease on your company's we

d as descendant progressive powers of 20, instead of 10 like we do with our decimal system. Some exam

incrementing numbers (e.g. 1, 2, 3 or 5, 6, 7, 8). The twist is that you have to consider the combination

er has and the second is the array of money bills available. Return the minimum count of money bills rec

box can hold a maximum of 10 kgs. Given an array containing the weight (in kg) of each item, how man

will always play first and will give a word. Player 2 must then give another word that begins with the en

n adds "ay" to the end of the word. This is called "Pig Latin" and it gets more complicated than the rules

ntained in this number and you have 1 zero, 2 ones, 3 twos, 2 threes, but that is a replica of the number

ged with students by id. Students within groups should be ordered in the same way the studentIds were

integers that are coprime of a given number n, from 1 to n - 1. Two numbers are coprime when their gre

umerator and d is the denominator of a given fraction, the fraction can be called as Proper Fraction if ar

followed by a distance to move. The robot starts at [0, 0]. You want to calculate where the robot will en

led array will contain three elements, each being an array with three elements as unique integers.

alse. The weight of the car and the weight of the passengers are given in pounds. The maximum weight i

the specified characters +, -, /, *, or if there is a division by zero, the function should return null. Help h

om the middle. You need to create a function that takes the dart location as two cartesian coordinates (

otherwise. Keep in mind JavaScript's Date month is 0 based, meaning December is the 11th month while

s return what that expression is. I am not going to tell you what the expression is because that will spoil

profile if you missed any. This next part of the series is to help solidify what you've learned. In order to

llenge they will be defined for you. All you have to do is to check the variables, do some string to integer

needed something better because of a few shortcomings (like problems with nested callbacks).

is children got. If his children did not get any apples, return "The children didn't get any apples".

quantifier makes the quantifier "non-greedy": meaning that it will stop as soon as it finds a match.

erent values, with each successive value differing by 1/256 of the full scale value, this becomes the syste

return b, and if c is equal to b, return a. Here's what makes this challenge difficult: you cannot use any i

Just as she finishes rating the exhibitions, she's called off to an important meeting. She asks you to write

etc, etc. Return true if all element combinations add up to the same number. Otherwise, return false.

ge below). Depending upon the volume of oil to be packaged, the company requires vessels of varying h

the original array and each nested array has the same amount of elements as the original array.

She has written a regular expression but the regular expression does not seem to be correct. Help her f

es on the third day (totalling 7 pennies). Given a number of days, return how many pennies the employe

ith: calculators round it to 1, and trying to write it in scientific notation does the same (because any 9 yc

hich returns a promise that appends either a fulfilled or rejection handler(callback) or just returns the se

mber. During his experiment, elements started precipitating inside the chamber. Help him find the total

left, would count as 1 unit. Starting from the bottom wire and moving up, the units increase by a factor

n found that each code contains 25 numbers with one missing. The missing number corresponds to a let

thod for finding the greatest common divisor (GCD) of two numbers. It was originally described by the G

code storage space for a single line of code, and no more than the length of an old Tweet (140 character

ton and it will add 30 seconds to the timer to cook your food. If you want to heat something for 5 mins,

ld roll it many times and note the results. Because of randomness, you can't expect to get the same fre

ir of color 1 and one of color 2. There are three odd socks left, one of each color. The number of pairs is

three face-cards (Jack, Queen, and King). In this challenge, the notation used for the cards is a string co

ıre determined by the first array. The comparator is invoked with two arguments: (arrVal, othVal).

ase insensitive), you should ignore it. The returned string's length should be a multiple of 8, if the string i

a cheapskate), he decides to use a very simple rule. In any selection of two or more wines, he will alwa

a serial port. The segment display is a common cathode segment display that means you need to give a

y do they will be added to the new array which will return only unique values showing the "intersecting'

μ=15 in both cases, however the values of second array are clearly more spread out from the average va

string with all upper case characters swapped for lower case characters, and vice versa. Any non-alphab
vely-defined objects. They are named after the Belgian mathematician Eugène Charles Catalan (1814–18

er combination is entered by first dialling to the right (clockwise), then to the left (anti-clockwise), and t

the distance, e.g. {x:50, y:60}, {x: 100, y: 100}, 10. The expected result is a similar object with the new c

:he alphabet ("a" = 1, "b" = 2, ..., "z" = 26). Given the glitched text, return the corrected message.

ng the Fibonacci sequence recursively can grow quite fast. Therefore it can be important to think about

ad. There is not a fixed date for the new releases, but you know that it happens every first Tuesday of ev

ιe number of times the key was returned by iteratee. The iteratee is invoked with one argument: (value)

labout, there's a moment of time where you need to react, turn on your indicator light, and exit the rou

ning near light speed. When he returns to earth he finds that Jill has grown to adulthood while he, Jack,

ome are given the Edabitin™, while others are supplied simple generic Tutorial powder. After a week, the

should exceed 100. However, if a single integer equals or exceeds 100, return the integer as well.

previous row. If these colours are identical, the same colour is used in the new row. If colours are differ

ENDS WHO LOVE ME"), remove all vowels, remove any duplicate letters (keeping the last occurence), an

of their grades. You will only have to return the student's name. You do not need to return their Test Av

etween point A and B (in km), write a function that returns how much time passes until both objects me

or not a student can still score 100%. Questions with missing answers are marked with an underscore, '

+c++==a") and for the string to be true, each letter must be surrounded by a + symbol. So the string to t

armor, weapons, and boots. Each type of item has a different cost of gold and a different level of attack

a warp tunnel. The warp tunnel made appear the elements pushed through by the shifts at the beginnin

ng two arrays, one of the values that passed the check and the other with values that didn't.

d letter of the last word used. The first player to use a duplicate word, or use a word that does not begin

s in this particular challenge. I've intentionally kept things simple, otherwise this would turn into an extre

number of molecule …

94). For more info, che ...