## Guessing Game

Write a program that generates a random number between 0 and 10, and ask the user to guess the number:

* if the user guesses the right number display the message “Good Guess” and end the program
* If the user guesses a wrong number display the message “Try Again” and ask them to enter another number

**Hint:** Search for Math.random() function

## Multiplication Table

Write a program that asks the user to enter a number and then output the number’s multiplication table (number x 1 up to number x 12) to the HTML document.

**Example:**  number = 3

**Expected Output:**

3x1 = 3

3x2 = 6

3x3 = 9

3x4 = 12

.

3x12 = 36

## Smallest Number in Array

write a function that takes an array of numbers as a parameter and returns the smallest number.

**Example:**  arr = [10,2,3,5,2]

**Expected Output:** 2 (the smallest value in the array)

## Even Only

write a function that takes an array of numbers as a parameter and returns only the even numbers in the array

**Example:**  arr = [10,2,3,5,2]

**Expected Output:** [10,2,2] (since those are the only even values)

## Number Search

write a function that takes an array of numbers as a parameter and a number to search for in the array.

the function should return an array of all the indexes of the array containing the number

1. Using only loops
2. Using only array methods

**Example:**  arr = [10,2,3,5,2] , number = 2

**Expected Output:** [1,4] -> number 2 exists in the second and last positions.

## Characters Search

write a function that is similar to the Number Search function but instead, it takes two arguments:

1. a string

2. target character

**Example:**  text= “Th**i**s **i**s JavaScr**i**pt”, character = “i”

**Expected Output:** [2,5,15] -> letter **i** exists in 3 positions

**Hint:** astring is just an array of characters treat it as a normal array.

**Bonus:** Accept an array of characters instead of a single character and return all the matches

**Example:**  text= “Th**i**s **i**s J**a**v**a**Scr**i**pt”, characters = [“i”,”a”]

**Expected Output:** [[2,5,15], [9,11]] -> letter **i** exists in 3 positions, letter **a** exists in 2 positions

## Battle Game

Write a function that takes an array of persons’ names and returns two random names of them.

**Example:** array = [“ahmed”, “islam”, “sandra”, “Fatma”]

**Expected Output:** [“sandra”,”Ali”]

**Hint:** Search for Math.random() function and how to generate an array's random index.

## Triangle Pattern

write a program that takes a number from the user (of the height of the pyramid), and then display the result triangle pattern to the HTML document.

**Example:** height = 5

**Expected Output:**

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**\* \***

**\* \* \***

**\* \* \* \***

**\* \* \* \* \***