Assignment Questions 7

Question 1

Given two strings s and t, *determine if they are isomorphic.*

Two strings s and t are isomorphic if the characters in s can be replaced to get t.

All occurrences of a character must be replaced with another character while preserving the order of characters. No two characters may map to the same character, but a character may map to itself.

Example 1:

Input: s = "egg", t = "add"

Output: true

Question 2

Given a string num which represents an integer, return true *if* num *is a* ***strobogrammatic number****.*

A **strobogrammatic number** is a number that looks the same when rotated 180 degrees (looked at upside down).

Example 1:

Input: num = "69"

Output:

true

Question 3

Given two non-negative integers, num1 and num2 represented as string, return *the sum of* num1 *and* num2 *as a string.*

You must solve the problem without using any built-in library for handling large integers (such as BigInteger). You must also not convert the inputs to integers directly.

Example 1:

Input: num1 = "11", num2 = "123"

Output:

"134"

Question 4

Given a string s, reverse the order of characters in each word within a sentence while still preserving whitespace and initial word order.

Example 1:

Input: s = "Let's take LeetCode contest"

Output: "s'teL ekat edoCteeL tsetnoc"

Question 5

Given a string s and an integer k, reverse the first k characters for every 2k characters counting from the start of the string.

If there are fewer than k characters left, reverse all of them. If there are less than 2k but greater than or equal to k characters, then reverse the first k characters and leave the other as original.

Example 1:

Input: s = "abcdefg", k = 2

Output:

"bacdfeg"

Question 6

Given two strings s and goal, return true *if and only if* s *can become* goal *after some number of* ***shifts*** *on* s*.*

A **shift** on s consists of moving the leftmost character of s to the rightmost position.

- For example, if s = "abcde", then it will be "bcdea" after one shift.

Example 1:

Input: s = "abcde", goal = "cdeab"

Output:

true

Question 7

Given two strings s and t, return true *if they are equal when both are typed into empty text editors.* '#' means a backspace character.

Note that after backspacing an empty text, the text will continue empty.

Example 1:

Input: s = "ab#c", t = "ad#c"

Output: true

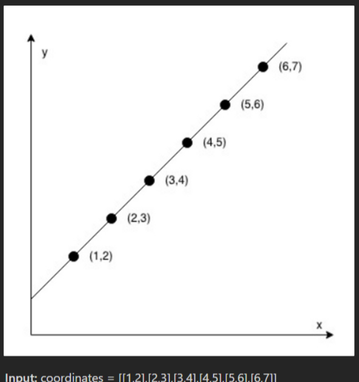
Explanation:

Both s and t become "ac".

Question 8

You are given an array coordinates, coordinates[i] = [x, y], where [x, y] represents the coordinate of a point. Check if these points make a straight line in the XY plane.

Example 1:



Input: coordinates = [[1,2],[2,3],[3,4],[4,5],[5,6],[6,7]]

Output: true