1. You are given an M by N matrix consisting of booleans that represents a board. Each True boolean represents a wall. Each False boolean represents a tile you can walk on.
Given this matrix, a start coordinate, and an end coordinate, return the minimum number of steps required to reach the end coordinate from the start. If there is no possible path, then return null. You can move up, left, down, and right. You cannot move through walls. You cannot wrap around the edges of the board.
For example, given the following board:
[[f, f, f, f],
[t, t, f, t],
[f, f, f, f],
[f, f, f, f]]
and start = (3, 0) (bottom left) and end = (0, 0) (top left), the minimum number of steps required to reach the end is 7, since we would need to go through (1, 2) because there is a wall everywhere else on the second row.

2.Given a string of round, curly, and square open and closing brackets, return whether the brackets are balanced (well-formed).
For example, given the string "([])[]({})", you should return true.
Given the string "([)]" or "(((()", you should return false.

3.Run-length encoding is a fast and simple method of encoding strings. The basic idea is to represent repeated successive characters as a single count and character. For example, the string "AAAABBBCCDAA" would be encoded as "4A3B2C1D2A".
Implement run-length encoding and decoding. You can assume the string to be encoded have no digits and consists solely of alphabetic characters. You can assume the string to be decoded is valid.

4.You are given an array of non-negative integers that represents a two-dimensional elevation map where each element is unit-width wall and the integer is the height. Suppose it will rain and all spots between two walls get filled up.
Compute how many units of water remain trapped on the map in O(N) time and O(1) space.
For example, given the input [2, 1, 2], we can hold 1 unit of water in the middle.
Given the input [3, 0, 1, 3, 0, 5], we can hold 3 units in the first index, 2 in the second, and 3 in the fourth index (we cannot hold 5 since it would run off to the left), so we can trap 8 units of water.

5.The edit distance between two strings refers to the minimum number of character insertions, deletions, and substitutions required to change one string to the other. For example, the edit distance between “kitten” and “sitting” is three: substitute the “k” for “s”, substitute the “e” for “i”, and append a “g”.
Given two strings, compute the edit distance between them.