Regions Cut by Slashes

Try to solve the Regions Cut By Slashes problem.

Statement

An $n \times n$ grid is composed of n, 1×1 squares, where each 1×1 square consists of a "/", "\", or a blank space. These characters divide the square into adjacent regions.

Given the grid represented as a string array, return the number of adjacent regions.

> **Note:**
>
> 1. Backslash characters are escaped, so "\" is represented as "\\".
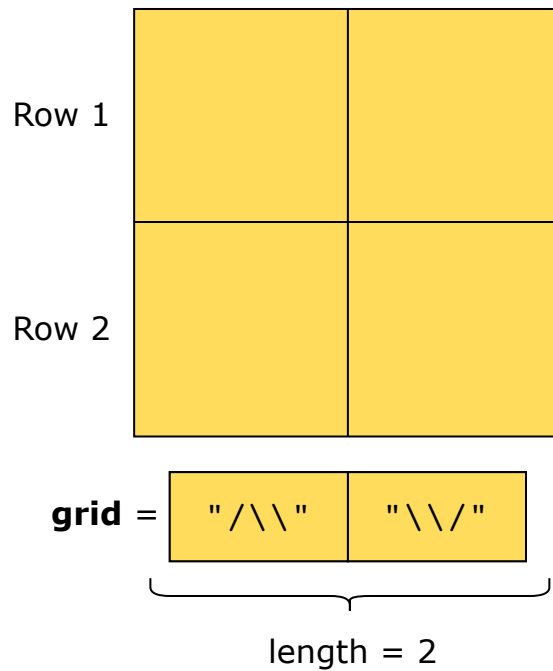> 2. A 1×1 square in the grid will be referred to as a box.

Constraints:

- The grid consists of only the "/", "\", or " " characters.
- $1 \leq$ `grid.length` ≤ 30

The following illustration shows how the grid can be visualized:

The number of elements in the **grid** list represent the value of n in the nxn grid. In this case, the length is 2, so we have a 2x2 grid.

Row 1

Row 2

grid = | "/\\" | "\\/" |

length = 2

Examples

Sample example 1

Input

grid	' / '	' '

Output

1

Explanation
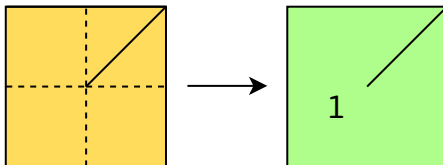
Sample example 2

Input

grid	' //'	' \\/'	'//\\'

Output

4

Explanation
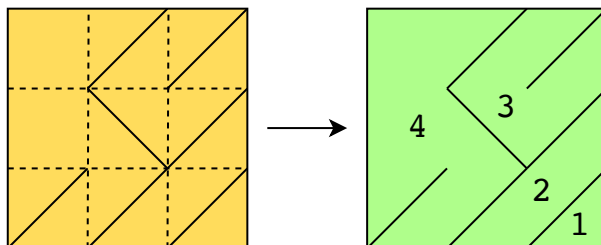
Sample example 3

Input

| grid | '/ /\\\\' | '//\\\\/' | ' /\\\\' | '\\\\\\\\\\\\/\\\\' |

Output

5

Explanation
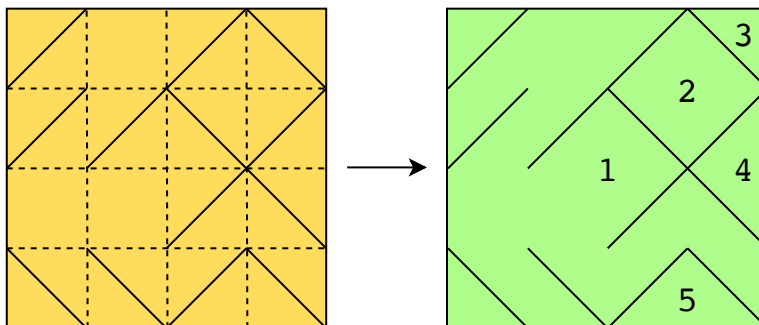
Understand the problem

Let's take a moment to make sure you've correctly understood the problem. The quiz below helps you check if you're solving the correct problem:

Regions Cut By Slashes

1 What is the output if the following grid is given as input?

grid = ["\\\/", "/\\\"]

A) 2

B) 3

C) 4

D) 5

Submit Answer

Figure it out!

We have a game for you to play. Rearrange the logical building blocks to develop a clearer understanding of how to solve this problem.

Drag and drop the cards to rearrange them in the correct sequence.

Repeat this process until the entire grid has been traversed.

Count the number of connected components that

represent the regions in the grid.

Traverse each box and combine the regions in the box based on the input character.

Connect the current box with its top, bottom, left, and right neighboring boxes.

Divide each box in the $n \times n$ grid into four regions: north, south, west, and east.

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