An avid hiker keeps meticulous records of their hikes. During the last hike that took exactly ***steps*** steps, for every step it was noted if it was an uphill ***U***, or a downhill, ***D*** step. Hikes always start and end at sea level, and each step up or down represents a ***1*** unit change in altitude. We define the following terms:

- A mountain is a sequence of consecutive steps above sea level, starting with a step up from sea level and ending with a step down to sea level.
- A valley is a sequence of consecutive steps below sea level, starting with a step down from sea level and ending with a step up to sea level.

Given the sequence of up and down steps during a hike, find and print the number of valleys walked through.

Example

Steps = 8 paths = [DDUUUUDD]

The hiker first enters a valley ***2*** units deep. Then they climb out and up onto a mountain ***2*** units high. Finally, the hiker returns to sea level and ends the hike.

Function Description

Complete the countingValleys function in the editor below.

countingValleys has the following parameter(s):

- int steps: the number of steps on the hike
- string path: a string describing the path

Returns

- int: the number of valleys traversed

Input Format

The first line contains an integer , the number of steps in the hike.

The second line contains a single string , of characters that describe the path.

Constraints

- 2 <= steps <= 10^6
- ***Path[i] belongs to {U D}***

Sample Input

8
UDDDUDUU

Sample Output

1

Explanation

If we represent _ as sea level, a step up as /, and a step down as \, the hike can be drawn as:

```
_/\      _
   \    /
    \/\/
```

The hiker enters and leaves one valley.